Scottish and Southern Energy
Power Distribution

Moray Firth Hub &
Caithness HVDC Connection

Caithness Converter Station

Volume 1:
Environmental Statement

June 2011

CONTENTS

List of Tables

Abbreviations and Acronyms

AA	Appropriate Assessment
AC	Alternating Current
AIL	Abnormal Indivisible Load
AOD	Above Ordnance Datum
AQMA	Air Quality Management Area
BAP	Biodiversity Action Plan
BGS	British Geological Survey
BS	British Standard
CAR	The Water Environment (Controlled Activities)(Scotland) Regulations (2011)
CASE	Caithness and Sutherland Enterprise
CEMD	Construction Environmental Management Document
CNSRP	Caithness and North Sutherland Regeneration Partnership
CRTN	Calculation of Road Traffic Noise
DC	Direct Current
DEFRA	Department of Environment, Food Rural Affairs
DMRB	Design Manual for Roads and Bridges
DWPA	Drinking Water Protection Area
ECoW	Environmental Clerk of Works
EIA	Environmental Impact Assessment
EMF	Electromagnetic Field
EPS	European Protected Species
ES	Environmental Statement
FWF	Freshwater Fish
FWPM	Freshwater Pearl Mussel
GES	Good Ecological Status
GIS	Geographic Information System
HBRG	Highland Biological Recording Group
HGV	Heavy Goods Vehicle
HLA	Historic Land-use Assessment
HPA	Health Protection Agency
HRA	Habitats Regulations Assessment
HRES	Highland Renewable Energy Strategy
HRESPG	Highland Renewable Energy Strategy and Planning Guidelines
HS	Historic Scotland
HVDC	High Voltage Direct Current
HwLDP	Highland-wide Local Development Plan
ICNIRP	International Commission on Non-Ionizing Radiation Protection
IEEM	Institute of Ecology and Environmental Management
IEMA	Institute of Environmental Management and Assessment
JNCC	Joint Nature Conservation Committee
LBAP	Local Biodiversity Action Plan

LGV	Light Goods Vehicle
LLCT	Local Landscape Character Type
LSE	Likely Significant Effect
NBN	National Biodiversity Network
NDA	Nuclear Decommissioning Authority
NERC	Natural Environment Research Council
NGR	National Grid Reference
NPFS	National Planning Framework for Scotland
NR	Noise Rating
NTS	Non-technical Summary
OHL	Overhead Line
ORCA	Orkney Research Centre for Archaeology
OS	Ordnance Survey
PAC	Pre- Application Consultation
PAN	Planning Advice Note
PP	Primary Policies
PPV	Peak Particle Velocity
RBMP	River Basin Management Plan
RCHAMS	Royal Commission on the Ancient and Historical Monuments of Scotland
RIGS	Regionally Important Geological / geomorphological Site
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SAM	Scheduled Ancient Monument
SEPA	Scottish Environment Protection Agency
SHETL	Scottish Hydro Electric Transmission Limited
SNH	Scottish Natural Heritage
SNH LCA	Scottish Natural Heritage Landscape Character Assessment
SPA	Special Protection Area
SPG	Special Planning Guidance
SPP	Scottish Planning Policy
SSE	Scottish and Southern Energy
SSSI	Site of Special Scientific Interest
SUDS	Sustainable Urban Drainage System
TA/TS	Transport Assessment/ Statement
THC	The Highland Council
TRL	Transport Research Laboratory
TRRL	Transport and Road Research Laboratory
UK BAP	UK Biodiversity Action Plan
VSC	Voltage-sourced Converter
WCA	Wildlife and Countryside Act 1981 as amended
WEWs	The Water Environment and Water Services (Scotland) Act 2003
WFD	Water Framework Directive
ZTV	Zone of Theoretical Visibility

1 Introduction

1.1 The Moray Firth Hub & Caithness HVDC Connection

Scottish and Southern Energy's (SSE) transmission business Scottish Hydro Electric Transmission Limited (SHETL)[26] is developing proposals to upgrade the electricity transmission infrastructure in the north of Scotland to meet demand for connection from various renewable proposals. To help meet these requirements a project has been devised for a high voltage direct current (HVDC) link to connect onshore grid infrastructure in Caithness with offshore grid infrastructure in the Moray Firth. This link would comprise:

- a new alternating current (AC) to direct current (DC) converter station near Spittal in Caithness (the subject of this document);
- an onshore HVDC buried cable from the converter station to the coast north of Wick;
- a directionally-drilled landfall at the coast near Field of Noss Farm, north of Wick;
- a subsea HVDC cable from the coast to the outer Moray Firth; where it connects to
- the Moray Firth HVDC Hub platform, to act as the offshore connection point.

SHETL wish to take forward the proposals in a responsible manner, with due regard for the environment as is required by the terms of their statutory obligations (see Section 1.4), and has completed an Environmental Impact Assessment (EIA) for the Caithness converter station. This document is the Environmental Statement (ES) for the Caithness Converter Station EIA. It reports the findings of studies and assessment of effects associated with the construction, operation and decommissioning of the converter station at a site near Spittal in Caithness. Figure 1.1[27] shows the key elements of the overall Caithness HVDC Connection. The location of the proposed converter station at Spittal is shown in Figure 1.2. The proposals are described in more detail in Chapter 4: The Project Proposals.

1.2 Grid network connections

At the Caithness Converter Station future connections will be made to the existing 132kV line from Thurso to Beauly and to any new connections arising from new power generation projects. These will be subject to separate consents and are not part of this EIA process. It is likely that the existing 132kV line from the connection point northwards to Thurso will be required to upgrade to 275kV. This again will be taken forward by SHETL as a separate project.

1.3 Project timescales

The construction phase of the project is anticipated to take some 2½ years, beginning in 2013 with the facility being commissioned in 2016.

1.4 Statutory context and development consents

Due to the nature of this project there is a need to meet a variety of legislative requirements and as a result follow specific processes and obtain necessary

[26] Scottish Hydro Electric Transmission Limited (SHETL) owns and maintains the 132kV and 275kV electricity transmission network in the north of Scotland. SHETL is owned by Scottish and Southern Energy Power Distribution, which is a trading name of SSE Power Distribution Limited.
[27] All figures are detailed in Volume 2.

consents which will ultimately set out the boundaries of operation. SHETL's functions are defined through its Transmission Licence (awarded by Ofgem through the Electricity Act 1989 s6). For SHETL to undertake this project there is a need to comply with requirements relating to:

- Transmission Licence
- Planning
- Other licences

1.4.1 Transmission licence requirements

The Caithness Converter Station project must comply with the framework of statutory obligations that apply to SHETL as a holder of a Transmission Licence. Amongst the obligations that SHETL must fulfil is a duty, under Section 9 (2) of the Electricity Act, 1989 for the holder of a Transmission Licence to:

- Develop and maintain an efficient, co-ordinated and economical system of electricity transmission; and
- Facilitate competition in the supply and generation of electricity.

Additionally, Section 38 and Schedule 9 of the Electricity Act, 1989 require the holder of a Transmission Licence to preserve amenity and fisheries in Scotland stating:

> *In formulating any relevant proposals, a licence holder or a person authorised by exemption to generate or supply electricity:*
>
> - *shall have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest; and*
> - *shall do what he reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects.*

1.4.2 Development consents

Development consents required for the Caithness Converter Station include:

- an application to The Highland Council under the Town and Country Planning (Scotland) Act 1997 as amended by the Planning etc. (Scotland) Act 2006, submitted at the same time as this ES;
- pre-application consultation because the development is 'major' development' under The Town and Country Planning (Hierarchy of Development) (Scotland) Regulations 2009 (see Section 2.4.2);
- formal environmental impact assessment (EIA) under the provisions of The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 (EIA Regulations) because of the scale of the proposals and potential for significant effects.

The extent of the planning application for the converter station is outlined in Figure 1.2.

1.4.3 Pre-application Consultation

All national and major developments require Pre-application Consultation (PAC) between developers and communities. The project is defined as a major project[28] under the Town and Country Planning (Hierarchy of Developments) (Scotland) Regulations 2009. Pre-application consultation between the developer and local community has thus been carried out in accordance with the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2008 and the relevant provisions of the Town and Country Planning (Scotland) Act 1997 as amended by the Planning etc. (Scotland) Act 2006 (see Section 2.4.2).

1.4.4 Environmental Impact Assessment

Projects specified within Schedule 1 of The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 are required to undertake an EIA. Schedule 2 however sets out those developments for which the need for an EIA is determined by the local planning authority on a case by case basis through a screening process. In the case of the Caithness Converter Station, early discussions with The Highland Council determined that because of the scale of the development, the project should be considered to have the potential for significant effects and should therefore be considered formally under the EIA Regulations.

Although it has been determined that there is the potential for there to be significant environmental effects, and that an EIA is therefore required, it does not mean that a significant effect is the ultimate conclusion of the Environmental Statement (ES). The EIA process facilitates identification of the potential for significant impacts and then allows environmental measures to be incorporated into the design of the development, or the method of construction and operation, which may reduce or eliminate any negative effects. It is the significance of any residual effects that is then assessed and on which the determination decision is based.

Under the EIA Regulations a formal Scoping Opinion can be requested. On this project it was considered that the regular interactions and discussions with statutory bodies had helped scope the EIA (see Annex I) and a formal opinion was not requested.

1.5 Structure of this Environmental Statement

This ES has been prepared to meet the requirements of the EIA Regulations and the approach has been informed by Scottish Government Planning Circular 3 2011: The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 and other EIA guidance (IEMA 2004). Table 1.2 and Table 1.3 (at the end of this chapter) summarise where the information required by the EIA Regulations can be found in the ES. The individual technical assessments have been carried out with reference to relevant legislative and policy requirements and current best practice and where relevant this is quoted in each technical chapter. The focus of the EIA was informed by the comments from consultees (see Section 2.4).

[28] Major development includes 'Business and General Industry, Storage and Distribution: for any industrial process – the gross floor space of the building, structure or other erection is or exceeds 10,000 square metres' or 'The area of the site is or exceeds 2 hectares'. The proposed converter station would occupy a compound measuring up to 300m x 250m, equalling 75,000m^2, and is therefore classed as 'major' development and is therefore subject to PAC.

This Environmental Statement for the Caithness Converter Station is presented in five volumes:

- Non-technical summary
- Volume 1 — The main ES report also including the non-technical summary (NTS)
- Volume 2 — All figures associated with the main reports, organised by chapter
- Volume 3 — Five annexes supporting the ES
- Volume 4 — Appendices including data and technical reports supporting the main ES presented in A4 format
- Volume 5 — Two appendices (10-A and 11-D) presented in A3 format

Within the remainder of **Volume 1** the following chapters are presented:

Chapter 2 – Approach to the Environmental Statement
This chapter summarises the approach taken to the ES, including the project team, sources of information, objectives of the ES, consultation, and approach to the assessment.

Chapter 3 – Project Design Process and Comparison of Alternatives
This chapter summarises work undertaken to define objectives for the project and to evaluate alternatives. It outlines the alternatives considered, and describes the process for selecting the preferred option for the converter station.

Chapter 4 – The Project Proposals
This chapter describes the project proposals for the selected option focussing upon issues relevant to the environmental performance of the project.

Chapter 5 – Planning Policy and Guidance
This chapter outlines the relevant policy and planning framework for the project and assesses compliance with relevant policies.

Chapters 6 to 15: Individual topic-based assessment
These chapters address the environmental impacts of the proposals, set out agreed mitigation and summarise the residual environmental effects that could result. The topic areas addressed are:

- Chapter 6. Land Use and Utilities
- Chapter 7. Geology and Soils
- Chapter 8. Hydrology, Drainage and Water Quality
- Chapter 9. Ecology and Nature Conservation
- Chapter 10. Landscape and Visual Impacts
- Chapter 11. Archaeology and Cultural Heritage
- Chapter 12. Traffic and Transport
- Chapter 13. Noise and Vibration
- Chapter 14. Air Quality
- Chapter 15. Socio-Economic Impacts

Chapter 16 – Cumulative effects
This chapter considers the intra-project pressures and opportunities arising from combinations of the topics outlined above and then goes on to consider the in-combination issues (i.e. cumulative effects) that may arise with other existing and planned projects in the area.

Chapter 17 – Sustainability of the project
This chapter includes a review of the sustainability principles that have been incorporated in the project to date.

For each of the environmental topics the key points outlined in Table 1.1 have been addressed:

Table 1.1 System used to assess each topic in the EIA process

What is covered in this chapter?
Subjects included in the chapter and reference to chapters where related issues are covered
Why could the issue be important?
A qualitative overview by the project team on why the issue is important in the context of this project
Sources of information
The various sources of information that have been used for the assessment
Survey and analysis work undertaken
The need for and the approach to any survey work and project specific baseline data gathering
Consultation feedback
Summary of relevant feedback received from consultation
Guidance and regulations
Where appropriate, outlines any regulations, policies or other requirements of particular relevance to understanding the content of the chapter that have not been discussed in earlier chapters
Methodology
Describes the specific approach to assessing impacts, including any definitions of sensitivity, magnitude and significance specific to the topic, and a description of any specific analytical methods applied Describes any limitations to the assessment
Established baseline conditions
A description of the baseline conditions for each topic in the project area as they are currently understood, including results from specific surveys Defines the project area relevant for the topic being discussed
Range of possible impacts
List of the possible impacts described according to the phase of activity (e.g. construction, operation, decommissioning), including an indication of any permanent impacts
Mitigation
Lists agreed mitigation measures
Assessment of residual effects
Discussion of the anticipated residual impacts for the project considering implementation of agreed mitigation measures
Potential for cumulative effects
Addresses whether there are any cumulative issues associated with the topic Any that are identified are addressed in Chapter 16

Summary of key findings
A summary of the key findings of the assessment
References
A list of any references used for the assessment

In addition, mitigation measures relevant to the discussion of residual impacts are cross-referenced in each chapter.

Volume 2 of this report contains the various figures referenced in the report. These include maps, layouts, and design illustrations.

Volume 3 of this report contains supporting information for the project in five annexes:

- Annex I: Consultation Table
- Annex II: Summary of Environmental Mitigation Measures
- Annex III: Gazetteer of Photographs[29]
- Annex IV: Habitat Regulations Assessment
- Annex V: Caithness Underground Cables Environmental Appraisal

Volume 4 contains the data and technical appendices relevant to the technical chapters in the ES:

- Appendix 3-A: SSE Substation Site Selection Guidelines
- Appendix 3-B: Converter Station Site Comparison Table
- Appendix 5-A: Planning Policy Tables
- Appendix 8-A: Drainage Statement
- Appendix 9-A: Phase 1 Habitat Survey Report
- Appendix 9-B: Breeding Birds and Protected Species Survey Report
- Appendix 9-C: River Thurso SAC -- Schedule and Conservation Objectives
- Appendix 10-B: Visual Effect Schedule
- Appendix 11-A: Gazetteer of Sites of Cultural Heritage Interest
- Appendix 11-B: Importance of Cultural Heritage Sites
- Appendix 11-C: Impact Assessment for Setting of Cultural Heritage Sites
- Appendix 13-A: Glossary of Acoustic Terminology

Volume 5 of this report contains two appendices that include visualisations and are presented in A3 format.

- Appendix 10-A: Landscape Assessment Visualisations
- Appendix 11-D: Archaeology and Cultural Heritage Visualisations

[29] All plates are to be found in this annex.

A summary of the findings of the assessment is presented in the Non-technical Summary (NTS) at the front of this ES and as a stand-alone document.

The Moray Firth Hub & Caithness HVDC Connection Optioneering Report describes the design process, and the alternatives considered, for all aspects of the Moray Firth Hub & Caithness HVDC Connection project. It is also available as a stand-alone document (Aquatera, 2010).

Table 1.2 Matters for Inclusion in Environmental Statements as required by Schedule 4, Part I of The Environmental Impact Assessment (Scotland) Regulations 2011

Requirement **Part I**	**Location of Information in the ES**
1 Description of the development, including in particular:	
(a) a description of the physical characteristics of the whole development and the land-use requirements during the construction and operational phases;	*Chapter 4, Sections 4.2.2- 4.2.5* *Chapter 6*
(b) a description of the main characteristics of the production process, for instance, nature and quantity of the materials used;	*Chapter 4, Section 4.2.5, 4.2.6, and 4.2.7*
(c) an estimate by type and quantity, of expected residues and emissions (water, air, and soil pollution, noise, vibration, light, heat, radiation *etc*) resulting from the operation of the development.	*Chapters 4, 13 and 14* *Chapter 7 Section 7.11.7* *Chapter 8 Sections 8.11.6, 8.8.6,* *Chapter 9 Sections 9.11.7, 9.11.8*
2 An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for the choice made, taking into account the environmental effects.	*Chapter 3, Section 3.6*
3 A description of the aspects of the environment likely to be significantly affected by the development, including, in particular:	*Chapters 6 to 15*
• population	*Chapters 6 Section 6.7.2* *Chapter 11 Section 11.5* *Chapter 15, Section 15.7*
• fauna and flora	*Chapter 9, Section 9.8*
• soil	*Chapter 7, Section 7.8*
• water	*Chapters 8 and 9, Sections 8.8 & 9.8*
• air and climatic factors	*Chapter 14, Section 14.7*
• material assets, including the architectural and archaeological heritage	*Chapters 11. Section 11.8*
• landscape	*Chapter 10, Section 10.8*
• the inter-relationship between the above factors	*Chapters 6 to 16*
4 A description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary or cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development resulting from:	*Chapters 6 to 15*

Requirement Part I	Location of Information in the ES
(a) the existence of the development;	*Chapters 6 – 15* *Sections 6.9, 7.9, 8.9, 9.9, 10.9, 11.9, 12.9, 13.9, 14.9, 15.9, 6.11, 7.11,8.11, 9.11, 10.11, 11.11, 12.11, 13.11, 14.11, 15.11, 6.12, 7.12, 8.12, 9.12, 10.12, 11.12, 12.12, 13.12, 14.12, 15.12*
(b) the use of natural resources;	*Chapters 7 -9* *Sections 7.9, 8.9, 9.9, 7.11, 8.11, 9.11, 7.12, 8.12, 9.12*
(c) the emission of pollutants, the creation of nuisances and the elimination of waste;	*Chapters 4, 7, 8, 9, 12, 13, and 14* *Sections 7.9, 8.9, 9.9, 12.9, 13.9, 14.9, 7.11, 8.11, 9.11, 12.11, 13.11, 14.11, 7.12, 8.12, 9.12, 12.12, 13.12, 14.12,*
(d) and the description by the applicant or appellant of the forecasting methods used to assess the effects on the environment.	*Section 7 in each of chapters 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15*
5 A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.	*Chapters 4, and 6 - 15, Sections 4.9, 6.9, 7.10, 8.10, 9.10, 10.10, 11.10, 12.11, 13.10, 14.9, 15.9 and Annex II*
6 A non-technical summary of the information provided under *Paragraphs 1 –5* of this Part.	*Non-technical Summary*
7 An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant or appellant in compiling the required information.	*Chapter 2, Section 2.6 and in relevant sections of technical chapter*

Table 1.3 Matters for Inclusion in Environmental Statements as required by Schedule 4, Part II of The Environmental Impact Assessment (Scotland) Regulations 2011

Requirement Part II	Location of Information in the ES
1 A description of the development comprising information on the site, design and size of the development.	*Chapters 1 and 4, Sections 1.1, 4.2*
2 A description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse impacts.	*Chapters 4, and 6 - 15, Sections 6.9, 7.10, 8.10, 9.10, 10.10, 11.10, 12.11, 13.10, 14.9, 15.9 and Annex II*
3 The data required to identify and assess the main effects that the development is likely to have on the environment.	*Chapters 6-15. See Sections 6.3, 7.3, 8.3, 9.3, 10.3, 11.3, 12.3, 13.3, 14.3, 15.3*
4 An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for the choice made, taking into account the environmental effects.	*Chapter 3, Section 3.6 & 3.7*
5 A non-technical summary of the information provided under *Paragraphs 1 –4* of this Part.	*Non-technical Summary*

1.6 References

Aquatera, 2010. *Moray Firth Hub & Caithness HVDC Connection: Optioneering Report*. Project report to SHETL. October 2010.

Institute of Environmental Management and Assessment, 2004. *Guidelines for EIA.*

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2 Approach to the Environmental Statement

2.1 The project team

SHETL recognised the need for EIA in developing its proposals and commissioned Aquatera Ltd as lead consultant for the EIA. SHETL has provided specific information about the proposals and their construction. The Aquatera team has been supported by the following specialists:

Firth Ecological	Phase 1 habitat surveys; breeding bird surveys
NDR Environmental Services	Protected mammal surveys
ORCA Ltd.	Archaeology and cultural heritage
Grontmij Ltd.	Landscape and visual appraisal
URS	Civil design
WSP Acoustics	Noise and vibration

2.2 Sources of information

The following sources of information have informed this Environmental Statement (ES):

- technical information, plans and drawings from within the project team;
- published information including relevant planning documents;
- statutory organisations and other relevant bodies and individuals consulted on the proposals;
- unpublished information made available by consultees;
- relevant Ordnance Survey (OS) maps; and
- site survey work.

Other specific technical information, guidance sources and reports which have been used for the EIA are referenced in the appropriate sections of the ES.

2.3 Objectives of the ES

The objectives of the ES can be summarised as follows:

- to identify the potential environmental impacts from construction and operation of the proposals, taking into account the characteristics of the development, the sensitivities of the local environment and the concerns of interested parties;
- to identify and describe measures which will be taken to mitigate identified adverse environmental impacts and deliver environmental benefits; and
- to predict and evaluate the extent and significance of residual effects taking into account the agreed mitigation.

2.4 Consultation

A range of individuals and organisations whose interests might be affected by the proposed development was consulted at the scoping stage for their initial views on the proposals, and to gather information and a better understanding on the scope of detailed assessment which would be required for the detailed EIA (see Section 1.5.2).

Individuals and organisations who were contacted and a summary of their responses are provided in Annex I: Consultation Table. The information which was provided has helped to inform an initial appraisal of the potential environmental effects of the proposals.

Meetings and telephone contact with relevant regulatory authorities and key stakeholders have further helped to agree the proposed way forward on the required environmental assessments for each part of the proposals.

The key meetings that have been held are outlined below in Table 2.1.

Table 2.1 Key meetings related to the proposals (see also Annex I: Consultation Responses)

Date	Consultation Type	Purpose
23 March 2010	Meeting with regulators and advisors	To establish the regulatory basis for the project
30-31 March 2010	Project team site visit	To review and validate desk based assessment results
15th June 2010	Meeting with The Highland Council	To present land based options and understand any key drivers from consultees
4th-6th July 2010	Project team site visit including representative from The Highland Council	To review and validate more detailed site and route assessment results
26-30 July 2010	Landowner visits	To determine any site-specific constraints to routing or siting from landowners' perspective
27 July 2010	Meeting with Historic Scotland	To discuss concerns related to historic environment resources
17 August 2010	PAC Meeting (The Highland Council)	To formally present proposal for Pre-application Consultation
25-26 August 2010	Site visit with project team and selected consultees (SNH, SEPA, The Highland Council)	To discuss specific issues with selected site, including concerns for flooding and visibility
September, November 2010, January 2011	Correspondence with SNH	To review and comment on Draft Habitat Regulations Assessment documents
December 2010	Correspondence with Transport Scotland	To discuss routes and abnormal loads
December 2010, January 2011	Further discussions and exchange of information with Historic Scotland	To discuss mitigation related to St. Magnus church Scheduled Ancient Monument
January 2011	Correspondence with SEPA	To review and comment on details of drainage plan and flood risk assessment
April 2011	Meeting with The Highland Council	To discuss changes to the size of the proposed converter station to accommodate 275kV bars and transformers required in the future when the existing 132kV line is upgraded to 275kV and to propose including the 275kV busbars in the Caithness Converter Station application.

Two public exhibitions outlining the proposed approach to the proposed converter station within the context of the overall project were held in Halkirk and Watten in September, 2010 as part of the pre-application consultation process (see Section 2.4.2).

2.4.1 Pre-Application Consultation (PAC)

Pre-application consultation has been carried out with the local community in accordance with the relevant regulations (see Section 1.4.3). A Pre-Application notice was sent to The Highland Council on 23 July, 2010. A Pre-Application Advice meeting was held with The Highland Council on 17 August, 2010. The Highland Council responded on 14 September with a Pre-Application Advice Pack (The Highland Council, 2010a). As part of this consultation process public exhibitions were held on 15, 16 September, 2010 in Halkirk and Watten, which included a number of display boards about the proposals. Local communities including relevant Community Councils were invited to the exhibitions where there was an opportunity to talk to representatives from the project team, and people were invited to give their feedback.

The response to the Pre-Application Advice Pack, and comments from the public exhibition, have been collated in a PAC Report which includes information on how the comments were taken on board in the developing proposals and EIA. The PAC Report also includes copies of the Pre-Application Notice, The Highland Council response to this notice and the exhibition material which was used. A copy of the PAC Report has been submitted to The Highland Council with this ES and the planning application. The feedback from the PAC process included in the PAC report is included in Annex I: Consultation Responses.

2.5 Habitat Regulations Assessment

The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), known as the Habitats Regulations', place a statutory duty on the competent authority, in this case The Highland Council, to meet the specific requirements of the Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna (the Habitats Directive). Under these regulations the competent authority must consider whether there is potential for likely significant effects from a plan or project on sites designated for their European nature conservation interests. Where this potential exists, if the integrity of a site could be affected, or its conservation objectives compromised, the competent authority must undertake an Appropriate Assessment[30].

Information relevant to the converter station development has been provided in a Habitat Regulations Assessment (HRA) document, which is Annex IV of the Environmental Statement, to inform the Appropriate Assessment(s) by The Highland Council. The sites and qualifying interests covered in this report are outlined in Table 2.2.

[30] Appropriate Assessment: The Habitats Regulations require competent authorities to undertake appropriate assessments in certain circumstances where a plan or project affects a Natura (European) site. Appropriate assessment is required when a plan or project affecting a Natura site: (a) • Is not connected with management of the site for nature conservation, and (b) • Is likely to have a significant effect on the site (either alone or in combination with other plans or projects). An appropriate assessment should focus exclusively on the qualifying interests of the Natura site affected and must consider any impacts on the conservation objectives of the site. SNH has advised that The Highland Council will be required to carry out an Appropriate Assessment for this proposal.

Table 2.2 Designated sites and qualifying interests that have been considered in the HRA

Site	Type of site	Qualifying features
Caithness Lochs (Special Protection Area (SPA), Ramsar)	Freshwater lochs with valuable plants and bird life	Greylag goose
Caithness and Sutherland Peatlands (Special Area of Conservation (SAC))	Blanket bog and associated wetlands and moorlands	Otter
Caithness and Sutherland Peatlands (SPA)	Blanket bog supporting important bird life	Golden plover
River Thurso (SAC)	River system	Atlantic Salmon

Additional information on the potential effects of the project on these sites can be found in Chapter 9: Ecology and Nature Conservation and in Annex IV.

2.6 Approach to the assessment

In the EIA process a common approach has been used for the assessment of each environmental topic. This has included:

- establishing the *baseline conditions* through a combination of desk review, consultations and site surveys, taking account of any committed development projects which could change the baseline in the future;
- identifying *potential environmental impacts*[31] which could result from development of the proposals; identification of *mitigation measures* to prevent, reduce and, where possible offset any impacts which could either by themselves, or in combination with other impacts, have a significant adverse effect; and
- assessment of the level of *significance of all residual effects* (direct and indirect, adverse and beneficial, short-term and long-term, permanent and temporary) taking account of committed mitigation measures.

Potential impacts have been taken into account in the iterative development of the proposals. Where the potential for a significant adverse effect either by itself or in combination (i.e. cumulatively) with other impacts has been identified, the environmental team has fed back concerns to the design teams who have taken account of the issues in refining the design for the project and the construction methodology.

All mitigation measures have only been taken into account in assessments after SHETL has given a commitment to their delivery. A collated list of mitigation measures is included in Annex II.

The assessment takes account of:

- **Routine and planned activities** – where it is likely or certain that such activities will take place or occur

[31] Impact is specific and applies to a particular element of the environment (i.e. air, water, etc). In order to assess the impact of a proposed development on a particular aspect of the environment, it is firstly necessary to measure the degree of change caused to that element by the proposal. A description of the change to an element of the environment caused by a proposed development can be made factually. Effect is a broader based view of the effect of a cumulation of the consequence of one or more impacts on a specific aspect of the environment (often referred to as the receptor). Assessment of effect involves not only a degree of professional judgement but also some extrapolation and generalisation, both of which also involve judgement (IEMA, 2004).

- **Accidental and unplanned events** – where it is uncertain whether the event will ever take place

Within each of these classes there are then subdivisions relating to the stage of the project that is being undertaken. This will therefore take account of the following stages:

- **Construction** – Impacts may arise from the construction activities themselves, or from the temporary occupation of land. The effects are often temporary and of limited duration, it is also the case that construction activities create permanent change and in this ES are reported in relation to the construction activities;
- **Operation** – Effects are typically permanent, subject to any future decommissioning, though may also be related to operational emissions or effects that will stop if the operation stops; and
- **Decommissioning** - Effects may arise from the decommissioning activities themselves or from the temporary occupation of land during this process. The effects would often be temporary and of limited duration and additional permanent change (unless associated with restoration) would normally be unlikely.

Definitions for temporal aspects of possible impacts used in this assessment are shown in Table 2.3 below.

Table 2.3 Definitions of the temporal aspects of possible impacts arising from the project

Duration	Description
Temporary	Likely to be related to a particular activity and will cease as soon as the activity ceases
Short term	Normally considered to be between a period of a few weeks or months or occasionally a few years depending on the topic and effect being discussed and its recoverability from an impact
Long term	Typically a period lasting past the end of construction up to the life of the development
Permanent	Typically an unrecoverable change

Permanent effects have been considered associated with permanent development and use of land for the project such as visual changes or loss of habitat.

The EIA Regulations require significant effects to be described (see Schedule 4). Significance is not defined in the Regulations. The definition of a significant effect which has been adopted in this assessment is one which the project team considers, in isolation or in combination with others, is material[32] to the environment and should be taken into account in the decision-making process.

The significance of an effect results from the interaction between its magnitude (which is related to the extent of the physical change, its spatial extent, duration and frequency) and the value of the resource or the number and sensitivity of those people who might be affected.

[32] i.e. important or having an important effect and of sufficient importance to take into account in development decisions

The process of assessing significance includes:

- selecting criteria (for each discipline) from recognised sources (including legal standards, policy and best practice guidance and accepted practice) against which effects have been assessed (assessment criteria);
- establishing significance thresholds[33] drawing on the above sources, consultations, experience etc; and
- comparing the predicted impacts with the significance thresholds and defining the nature of residual effect taking account of the reversibility of the effect, its probability of occurring and confidence in prediction including any uncertainty.

In this ES, where relevant, effects have been categorised into:

- neutral: no detectable change to the environment;
- negligible: a change within existing variability, difficult to measure or observe;
- minor: a detectable but non-material change to the environment;
- moderate: a material but non-fundamental change to the environment;
- major: a fundamental change to the environment.

Effects categorised as being moderate or major (adverse or beneficial) are considered in this ES to be significant.

Cumulative effects are also considered in terms of the overall importance of effects of a different nature occurring at the same location.

Cumulative effects may arise from a combination of effects upon one receptor from:

- the different parts of the converter station project;
- combinations of effects with other parts of the overall Caithness HVDC Connection project such as the onshore cable; and
- the potential for effects from this project to occur at the same time as those from other developments which have been approved and those in the planning system.

2.7 Limitations of the EIA and dealing with uncertainty

Any limitations to the EIA are summarised in each technical chapter, where relevant, together with the means proposed to mitigate these.

Where details of the project have still to be finalised (such as detailed construction methods that depend on the contractor chosen for the job etc.), assumptions have been made in the ES to allow potential impacts to be considered and appropriate mitigation to be identified. Figures for land take and habitat loss should be considered as approximate and could vary slightly once the detailed design is

[33] For some environmental aspects such as noise or air quality it is possible to use measurable, quantifiable criteria from legislation or guidance to establish at what level an effect becomes significant. For other areas this may not be possible and it may be necessary to rely on more qualitative criteria and this necessarily involves the use of professional judgement. Choosing the relevant criteria also depends in part on the particular characteristics of the project which is being assessed.

developed, although all changes would be within the red and blue line planning application boundaries.

If as the detailed proposals are developed, changes are made to the proposals that have potential to cause any significant effects which are considered greater than those reported in this ES, then an addendum to the ES would be published for public consultation and comment and further consideration by The Highland Council.

2.8 Copies of the ES

The Environmental Statement can be viewed during the consultation period during normal working hours at the council offices:

The Highland Council
Glenurquhart Road
Inverness IV3 5NX

and at the following locations:

Highland Council Planning Office
Market Square
Wick KW1 4AB

Thurso Service Point
Council Offices
Rotterdam Street
Thurso KW14 8AB

Copies of the ES can be purchased on request to the following address:

Scottish Hydro Electric Transmission Limited
Major Projects Support Group
Inveralmond House
200 Dunkeld Road
Perth. PH1 3AQ

The cost, including postage, is £200 for a hard copy of the ES and £20 for a copy of ES on CD-ROM. Please note that VAT will be charged on the supplied CD ROMs. Alternatively the Non-Technical Summary of the Converter Station ES, can be viewed at (and downloaded from) the Scottish & Southern Energy website at: http://www.scottish-southern.co.uk/ and follow the links to Media Centre and Project Portfolio. A copy of the NTS can be requested from the above address free of charge. The NTS can also be viewed on The Highland Council website: www.highland.gov.uk.

2.9 References

The Highland Council, 2010a. *Pre-Application Advice Pack*. Reference No.: 10/03711/PREAPP. September 2010.

11 Archaeology and Cultural Heritage

11.1 What is covered in this chapter?

This chapter considers the potential impacts of the proposed converter station on archaeological and cultural heritage resources. Such resources include[96]:

- World Heritage Sites
- Scheduled Ancient Monuments (SAMs)
- Listed Buildings
- Gardens and Designed Landscapes
- Conservation Areas
- Other archaeological sites and monuments
- Other non-designated historic environment assets

Archaeological and cultural heritage resources of potential relevance to this project are identified individually (see Figures 11.1 to 11.3 and Appendix 11-A) and the possible impact(s) of the proposed development on them is assessed.

The potential impacts include:

- direct physical impacts that may be caused by the construction of the converter station, including ancillary works, access routes and temporary compounds and laydown areas; and
- indirect impacts that may be caused by the construction of the converter station on the historic landscape and setting of the identified sites and resources. Information on impacts on the landscape and visual setting of cultural resource sites can also be found in Chapter 10: Landscape and Visual Impacts.

The potential issues and effects of the proposed development are presented, followed by both suggested and agreed mitigation measures, which were developed as the field assessments were carried out. The subsequent impact assessment takes account of specific mitigation commitments.

11.2 Why could this issue be important?

Key heritage assets, such as SAMs and Listed Buildings, have statutory protection from direct physical disturbance and also from unacceptable intrusions into their setting. Therefore any project must be planned and designed around this strong regulatory framework and take into account the requirements contained therein. There is also strong local interest in the history of Caithness, and its cultural heritage forms a growing focus for tourism and amenity purposes. Therefore there could be concerns if the construction of the converter station physically impacts a site, or if it significantly adversely affects (or is perceived to affect) the visual character of the historic landscape, the setting of sites and monuments or even how people enjoy the historic environment amenities of the area (see Chapter 15: Socio-Economic Effects).

[96] See (Historic Scotland, 2010a) for definitions

11.3 Sources of information

The assessment has reviewed information from a variety of sources, including:

- The National Monuments Record for Scotland (via the Pastmap and Canmore on- line facilities: <http://canmore.rcahms.gov.uk/> and <http://jura.rcahms.gov.uk/PASTMAP/>)
- The local Sites and Monuments Record held by The Highland Council, both by a search conducted by the Highland Council Archaeological Unit and via the online Highland Historic Environment Record (<http://her.highland.gov.uk/>)
- Statutory lists, registers and designated areas, including List of Scheduled Ancient Monuments, Listed Buildings, Designed Landscapes and local authority Conservation Areas
- The appropriate Ordnance Survey (OS) maps:
    - OS County Series 1:10560 (6" to 1 mile) 1st edition 1887
    - OS County Series 1:2500 (25" to 1 mile) 1st edition 1887
    - OS County Series 1:2500 (25" to 1 mile) 1st revision 1906
    - OS 1: 25000 1965 edition
    - OS 1:10560 1971 edition
    - OS 1: 25000 2007 Explorer edition
- Historic Land-use Assessment (HLA) maps produced by the Royal Commission on the Ancient and Historical Monuments of Scotland (RCHAMS) and Historic Scotland, accessed online at <http://hla.rcahms.gov.uk>
- Pre-Ordnance Survey maps of the area in the National Library of Scotland's online collection at <http://maps.nls.uk/> were checked, but none depicted the area in sufficient detail for any useful information to be discerned
- The Caithness and Sutherland Landscape Character Assessment, commissioned by Scottish Natural Heritage (Stanton, 1998)
- The Old and New Statistical Accounts of Scotland, and appropriate archaeological and historical journals, monographs and books (e.g. Baines et al., 2003; Barber, 2006; Batey, 1987; Davidson and Henshall, 1991; Heald & Jackson, 2001; MacKie, 2007; Pannett & Baines, 2003) were consulted to inform the understanding of the historic environment and context of the affected sites and monuments but did not result in the identification of any additional sites (a full list of these sources can be found in Section 11.14)
- Reports produced for this project by the Orkney Research Centre for Archaeology (ORCA), which included the results of desk-based assessments and walkover surveys
- Site visit 16-17 September, 2010 by ORCA
- Feedback from consultees (see Section 11.5 and Annex I).

11.4 Survey and analysis work undertaken

A desk-based assessment was conducted reviewing existing databases for the area to identify known sites in the vicinity of the proposed development, known sites within the Zone of Theoretical Visibility (ZTV)[97] and to assess the potential for unidentified sites and landscapes.

In addition, a walkover survey of the converter station site took place between 16 and 17th September 2010, to identify previously unknown sites. Also on these dates, several sites were visited for the consideration of setting issues.

These activities and the ZTV are described in more detail in Section 11.7 below.

11.5 Consultation feedback

Feedback regarding archaeology and cultural heritage issues is summarised below. Consultation was carried out with Historic Scotland and with The Highland Council. For a complete outline of Historic Scotland consultation feedback, including comments in The Highland Council's Pre-Application Advice Pack, see Annex I.

Historic Scotland's first consultation response of 25 June (AMNH/16/H) contained a number of key points.

- A number of assets (individually named in the response, see Annex I) within Historic Scotland's statutory remit are located in the vicinity of the original five proposed converter station sites and should be considered in terms of impact on their setting, as should any others in the wider area which may experience significant impacts. Only those relevant to the proposed site at Spittal Mains and within (or close to the edge of) the ZTV will be discussed in this chapter..
- The ES should contain appropriate visualisations such as photomontages and wireframe views of the development in relation to the sites and their settings, illustrating views both towards and from the proposed development, because the scale of the proposed converter station means that it has the potential to be particularly prominent.
- The ES should assess the potential cumulative and incremental impact of the proposed development in combination with other past, present and reasonably foreseeable developments in the vicinity.
- Historic Scotland recommended that alternative locations to the Spittal Mains site be considered, expressing concern that the Scheduled Monument of "*St Magnus' church, burial ground and hospital (Index no. 5413)* would be c.300m to the south of the compound. The scale and proximity of the compound would be likely to have an adverse impact on the setting of the church….If development was considered here [at West Spittal] impacts on the setting *of St. Magnus' Church and on the SAM Fairy Hillock, a chambered cairn SE of Spittal Mains (Index no. 528)* should be assessed and mitigation proposed."

[97] A visual envelope map giving an indication of the area from which the development theoretically may be visible. Due to shortcomings in computer modelling, there are places shown as having visibility that in reality will have no view, because of local screening by a tree or a wall that cannot reasonably be modelled. There may also be places shown as not having visibility where there is in reality a view – for example, if there are local high spots that are not accurately represented by the digital terrain model.

- Historic Scotland is keen to actively follow and discuss proposals and assessments as they progress, and provided guidance on setting in the documents: http://www.historic-scotland.gov.uk/scoping_of_development_proposals_2009.pdf and http://www.historic-scotland.gov.uk/managing-change-consultation-setting.pdf[98].

At a meeting with Historic Scotland on 27 July 2010 (minutes provided by Natural Capital Ltd for SSE),

- Historic Scotland re-iterated that the proposed location at Spittal Mains was the least preferred because of the effect of such a large development in this open, modified landscape, on the nationally important St Magnus' church, burial ground and hospital and the potential, given the church's attributes, that surrounding archaeology may exist.
- It was understood that due to other considerations the developer favoured the location.
- Mitigation measures discussed included suitable management of the nearby shelterbelts, which provide a high degree of screening, since felling them would increase the visual impact.
- Historic Scotland commented that all mitigation measures discussed for the proposed site at Spittal Mains were positive, even though it remained their least preferred site.

The Highland Council's Pre-Application Advice Pack (The Highland Council 2010) of 14 September points the developer to:

- Highland Structure Plan Policy BC1: "Archaeological sites [and in Strategic Policy G2 their setting] affected by development proposals should be preserved, or, in exceptional circumstances where preservation is impossible, the sites will be recorded at developers' expense to professional standards. Provision will be made in Local Plans for the appropriate protection, preservation and enhancement of archaeological sites."
- Highland Structure Plan Policy BC2, which provides for proposals that bring tourism or education benefits in relation to archaeological sites.
- The September 2010 proposed Highland wide Local Development Plan (HwLDP), which is a material consideration. This includes proposed policy 58 that "All development *proposals* will be assessed taking into account the level of importance and nature of heritage features, the nature and scale of development, and any impact on the feature and its setting. The following criteria will also apply: 1. For features of **local / regional importance** we will allow developments if we believe that they will not have an unacceptable impact on the amenity and heritage resource. 2. For features of **national importance** we will allow developments that can be shown not to compromise the 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."

[98] The consultation document has now been formally adopted, see (Historic Scotland, 2010a).

- The Highland Council's comments and suggested mitigations in terms of the landscape and visual impact are outlined in the relevant chapter (see Section 10.5).

Historic Scotland's response to The Highland Council, contained in the Pre-Application Pack re-iterates the points raised in their previous consultation responses, especially that the preferred site at Spittal Mains raises concerns about impacts on the setting of one scheduled monument (St Magnus' church, burial ground and hospital (Index no. 5413)) because there is likely to be a significant impact on its setting; therefore alternative locations should be considered. Historic Scotland adds that:

- if this location (the least-preferred one for Historic Scotland) is the only one that proves to be feasible, there is potential to mitigate the most adverse aspects of the impact on setting;
- existing woodland shelterbelts should help screen the development and could mitigate some of the potential impact, but ensuring that the trees are not felled (or are suitably managed) during the operational lifetime of the structure would be helpful;
- orienting the main structure to ensure that it presents the smallest possible area facing the monument would also partly mitigate some of the impact on the setting of the church; and
- any other means by which the impact could be mitigated should be explored, including landscaping works or other screening measures.

In e-mail correspondence of 22 December 2010 concerning details of the proposed screening of the converter station[99], Historic Scotland made the following comments.

- The potential impact on the setting of St. Magnus scheduled monument is of particular concern.
- The medieval hospital site is directly beside a track leading to the development. This track is almost certainly the medieval road, and the spittal was located so it could be seen by passers-by. Therefore, views along the track towards and away from the monument are an important element in its setting.
- A large shed which is not screened would constitute a significant visual intrusion on that setting, and we would seek appropriate mitigation for this;
- the lower level screening (as proposed) would be appropriate for the lower-lying elements of the proposed development, but would not mitigate the impact of the converter station itself on the setting of the scheduled monument.
- Historic Scotland is of the opinion that the most appropriate form of mitigative screening would involve the use of conifers, which over time would have the potential to significantly reduce the visual impact of the converter station on this scheduled monument. This screening would also have the potential to blend with the existing shelterbelt to the north / northwest of the development site. Such shelterbelts are quite common in this part of Caithness.

[99] E-mail from Robin Campbell, HS, to project landscape consultant, 22 December 2010, 15:01

In a telephone conference of 19th January 2011 between members of Historic Scotland, Aquatera and ORCA (see Annex I), key points included the following.

- Historic Scotland confirmed that their concern is with the setting of St Magnus' church, burial ground and hospital and that the current setting is not an unobstructed landscape, comprising open grazing in valley with shelterbelts to the north and south with some views to middle and far distance to the north and south.
- Historic Scotland clarified that they do not necessarily believe the farm track follows the precise line of the medieval road, but that there is a medieval road in the vicinity passing the chapel and going onwards to Halkirk.
- Historic Scotland agreed that the converter station will not be skylined in views from the chapel and will not be impeding views that exist, and are only concerned with views from the chapel towards to the converter station, and not any views from the A9(T).
- Historic Scotland expressed no other concerns except for this one visual issue; no other concerns about any other sites of national importance were expressed.
- Historic Scotland clarified that they believe the converter station is bigger and more prominent than nearby farm sheds and will present a hard surface which will show up prominently against the shelterbelt, creating a harsh view from the St Magnus' church, burial ground and hospital that could be mitigated by planting along the south side of the converter station of sufficient bulk and height to break up and soften the views to the converter station. The mix of trees doesn't matter, but Historic Scotland would like to see the screening as high as possible – up to the eaves level as an absolute minimum, preferably to the roofline, following a reasonable amount of time for the trees to grow. They clarified that it doesn't have to be a total screening, but that at least half of the screening should cover the ridgeline of the building after some 15-20 years.

Visualisations of the proposed development with the proposed mitigation screening were presented to Historic Scotland in February (see Appendix 11-D), and in a follow up email on 14 February 2011, they stated:

- this appears to be along the lines of what we discussed and had in mind. Ideally when fully grown the planting shall have the effect of significantly screening the shed and certainly softening the hard edges of it.

11.6 Guidance and regulations

11.6.1 Legislative Context

There are two main international legally binding conventions concerning cultural heritage. These are: the *European Convention on the Protection of the Archaeological Heritage* (revised), known as the Valletta Convention, which was ratified by the UK government in 2000. This contains provisions for the identification and protection of archaeological heritage both under water and on land, preferably *in situ*, but with provisions for appropriate recording and recovery if disturbance is unavoidable; and *The European Landscape Convention*, ratified by the UK government in 2006, which promotes the protection management and planning of landscapes in Europe, including the historical and cultural aspects of landscapes. Various European Directives on environmental impact assessment

have been incorporated into UK legislation including the *Environmental Impact Assessment (Scotland) Regulations* 2011 (see Section 1.4.3). This includes the requirement that the historic environment is included in the process to identify the environmental effects of development proposals to prevent, reduce and offset any adverse impacts.

The main piece of UK legislation is The *Ancient Monuments and Archaeological Areas Act* 1979 (AMAAA). It concerns sites that warrant protection due to being of national importance and are scheduled under the Act. Such sites or areas can be any "monument which in the opinion of the Secretary of State is of public interest by reason of the historic, architectural, traditional, artistic or archaeological interest attaching to it". A monument is defined as

> "any building, structure or work above or below the surface of the land, any cave or excavation; any site comprising the remains of any such building, structure or work or any cave or excavation; and any site comprising or comprising the remains of any vehicle, vessel or aircraft or other movable structure or part thereof" (Section 61 (7))."

The *Planning (Listed Buildings and Conservation Areas) (Scotland) Act* 1997 and amendments governs the listing and protection of buildings and areas of special architectural or historic interest. None was affected by the proposed converter station, so the implications of the Act will not be discussed further.

The criteria for the determination of national importance are contained in Historic Scotland's *Scottish Historic Environment Policy* (SHEP) 2009. The Act is administered in Scotland by Historic Scotland. Under the provisions of the AMAAA, it becomes an offence to carry out, without the prior written consent of the Scottish Ministers (scheduled monument consent), any works which would have the effect of demolishing, destroying, damaging, removing, repairing, altering, adding to, flooding or covering up the monument.

Article 15 of the *Town and Country Planning (General Development Procedure) (Scotland) Order* Statutory Instrument 1992 and amendments to it in Section 5 of the *Town and Country Planning (General Development Procedure) (Scotland) Amendment (No. 2) Order* 1994 and *The Town and Country Planning (Notification of Applications) (Scotland) Direction* 2007 requires planning authorities, prior to granting planning permission, to consult Scottish Ministers (through Historic Scotland) on any development proposals that may affect the site or setting of a Scheduled Monument, an A-Listed building or an Inventoried Garden or Designed Landscape. This means that the presence of such sites within the area of a proposed development and the protection of its setting are material considerations in the planning process and any planning proposal that would affect a site must be referred to Scottish Ministers (through Historic Scotland).

The *Town and Country Planning (Scotland) Act* 1997 and amendments, is the primary legislation which governs both development planning and development management in Scotland. The *Planning etc (Scotland) Act* 2006 amends in part the 1997 Act and makes further provision relating to town and country planning in Scotland. In essence these state that the historic environment (both statutory and non-statutory designations) are of interest in planning procedures and are of material consideration in the planning process.

11.6.2 Policy and guidance

Scottish Ministers' vision and strategic policies for the historic environment are set out in Historic Scotland's *Scottish Historic Environment Policy* (SHEP) 2009. Further, more detailed guidance is provided by Historic Scotland's *Managing Change in the Historic Environment* guidance series, to be found at their website (see Planning Advice Note (PAN) 9, 2009). The Scottish Ministers' key policy principles include 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"* (para 1.14)

and that there should be

> *"provision for recording where continued preservation is no longer possible or where loss is taking place through change or ongoing decay, and ensure that all records are retained in readily accessible archives"* (para 1.15).

Scottish Planning Policy (SPP 2010), with the companion Planning Advice Note (PAN 42): *Archaeology – the Planning Process and Scheduled Monument Procedures* 1994, sets out the government's planning policy on how the historic environment should be handled under the development plan and development control systems. The historic environment includes "ancient monuments, archaeological sites and landscape, historic buildings, townscapes, parks, gardens and designed landscapes and other features. It comprises both statutory and non-statutory designations. The location of historic features in the landscape and the patterns of past use are part of the historic environment." (SPP 2010, para 111).

It recognises that "archaeological sites and monuments are an important, finite and non-renewable resource and should be protected and preserved in situ wherever feasible" (SPP 2010, para 123), but also that "in most cases the historic environment can accommodate change which is informed and sensitively managed", with the proviso that "in some cases the importance of the heritage asset is such that change may be difficult or not possible" (SPP 2010, para 111). Where preservation is not possible, planning authorities should ensure that procedures are in place in order that appropriate excavation, recording, analysis, publication and archiving is undertaken before and/or during development and that the developer has made appropriate provision for this (SPP 2010, para 123).

The Highland Council's *Caithness Local Plan* (2002) and The Highland Council's *Structure Plan* (2001) set out the strategic framework for development of land in Caithness and the Highlands. These will shortly be supplemented and partly superseded by the Highland wide Local Development Plan (HwLDP), the proposed version of which was produced in September 2010 and which is a material consideration. These plans encourage appropriate developments while at the same time protecting *inter alia* archaeology and built heritage (Structure Plan policies BC1-5, HwLDP policy 58 – see Section 11.4 above).

Setting is an important consideration in legislation and in planning guidance on changes to the historic environment. In SPP 2010:

> *"Setting is more than the immediate surroundings of a site or building, and may be related to the function or use of a place, or how it was intended to fit into the landscape or townscape, the view from it or how it is seen from around, or areas that are important to the protection of the place, site or building. When…considering development proposals with a potentially*

> *significant impact on historic character, planning authorities should consider the capacity of settlements and the surrounding areas to accommodate development without damage to their historic value"* (para 113).

SPP 2010 (para 118) also states that a scheduled monument is of national importance and that part of the purpose of scheduling is to secure the monument "in-situ and as far as possible in its existing state and within an appropriate setting" and that

> *"Where works requiring planning permission affect a scheduled monument, the protection of the monument and its setting are important considerations. Development which will have an adverse effect on a scheduled monument or the integrity of its setting should not be permitted unless there are exceptional circumstances"* (para 118).

Scottish Ministers key principles as stated in SHEP 2009 include that the conservation of the historic environment should:

> *"have regard to retaining, or where appropriate enhancing, the setting of the site, monument, building or landscape; ensure that, where change is proposed, it is appropriate, carefully considered, authoritatively based, properly planned and executed, and (if appropriate) reversible;"* (para 1.15).

General guidance on setting is contained in Historic Scotland's 2009 *Scoping of Development Proposals: Assessment of Impact on the Setting of the Historic Environment Resource – Some General Considerations*, but its most recent and detailed guidance on setting is contained in its *Managing Change in the Historic Environment* series (Historic Scotland 2010a), dated October 2010. In the latter, setting is defined as how monuments were:

> *"deliberately positioned with reference to the surrounding topography, resources, landscape and other monuments or buildings. These relationships will often have changed through the life of a historic structure. Setting can be thought of as the way in which a historic structure's surroundings contribute to how it is experienced, understood and appreciated. Setting often extends beyond the immediate property boundary of a historic structure into the broader landscape"* (paras 2.2 & 2.3).

SSE's Substation Site Selection Guidelines (SSE, 2009), which were developed from the Holford Rules (National Grid undated), state that "close proximity" to environmental designations, including Scheduled Ancient Monuments, Battlefields, Listed Buildings, Conservation Areas, Historic Gardens and Designed Landscapes, should be avoided where possible. However, "close proximity" is not specifically defined in these guidelines.

Professional and industry standards and guidance on best practice are covered by The Landscape Institute and the Institute of Environmental Management and Assessment's *Guidelines for Landscape and Visual Impact Assessment* (Wilson, 2002) and the Institute for Archaeologists (IfA) Working Group on the Setting of Cultural Heritage Features' *Setting Standards: A Review* (Lambrick, 2008).

11.7 Methodology

This assessment involved the following activities:

- reviewing existing databases for the area to identify known sites in the area and known sites within the Zone of Theoretical Visibility (ZTV) and the potential for unidentified sites and landscapes;
- conducting a walkover survey of the converter station site and its immediate environs to identify previously unknown sites;
- categorising sites within the vicinity and within the ZTV in terms of local, regional, national or international significance;
- identifying any known or likely sensitive sites or areas within the vicinity or within the ZTV, predicting impacts and proposing mitigation or management strategies; and
- identifying the significance of residual effects.

These activities are described in more detail in the sections that follow. They follow standard practice and guidelines (referred to in each section) and have been approved by Historic Scotland[100].

11.7.1 Desk-based assessment

The desk-based assessment (DBA) was executed in accordance with the Institute for Archaeologists (IfA) *Standard and Guidance for archaeological desk-based assessment* (revised 2008, accessed 2nd June 2010 at www.archaeologists.net) and the relevant parts of The Highland Council's *Guidance for Archaeological Contractors* (available at www.highland.gov.uk).

The DBA covered the footprint of the converter station itself and anything within 1km (1km radius) of this. This was to identify any sites that might be affected by the proposed development, either directly (physically) or indirectly. Beyond this, in order to assess any setting issues, the DBA area of study was the area from which the proposed development may be seen, the visual envelope or ZTV, and the cultural heritage assets within. Guidance indicates that if a historic asset is not within the visual envelope of a development then most factors contributing to the setting of the asset will not be affected (Historic Scotland, 2010). The area of the ZTV has been established by a process described in Chapter 10: Landscape and Visual Impact, Section 10.7.4 and is shown on Figures 11.2 and 11.3. The distance from which a development is seen is important in considering the impact (see Section 10.7.4 for a detailed analysis). This has resulted in the potential impact of the development on the setting of heritage assets being assessed in zones: within 2km of the converter station, 2-5km away and 5-10km away. Beyond this it is most unlikely that the development will have an impact.

Within the ZTV in a 2km radius of the proposed converter station location, all sites were recorded and assessed in terms of the potential historic landscape and setting impact. For the ZTV between 2 and 5km from the converter station, sites of moderate to very high importance were assessed i.e. of regional, national or international significance), whilst 5 to 10km away only sites of high or very high importance, were assessed for the purposes of this report. Sites outwith the 10km ZTV were not assessed, because the level of impact is considered to be minor or none, even on sites of high or national importance. These bands are based on

[100] Phone conversation with Robin Campbell of HS EIA team, 28.1.11 and e-mail from John Malcolm, Inspector of Ancient Monuments in HS northwest team, 26.1.11

how prominent the development would be at increasing distances from the site (see Section 10.7.4) and concepts in national guidance (Scottish Government, 2002).

Each archaeological or historical site, monument and building identified within the assessment area was assigned an individual site number. All sites identified by the DBA, and the importance and significance of each individual site, are presented in tables appended to this chapter (Appendix 11-A and 11-B).

11.7.2 Walkover survey and site visits

The walkover of the converter station site took place between 16 and 17th September 2010. Also on these dates, several sites were visited for the consideration of setting issues. Although during the survey the weather was often wet with poor visibility, photographs were taken during clearer intervals.

The walkover survey of the converter station site was undertaken in a systematic manner, with transect width appropriate to the conditions (pasture field). The area fieldwalked included the field on the south side of the current location, the farm track on the east side of it, the shelterbelt and track to the north and visual inspections of a 30m wide corridor of the field on the east side of this and the fields flanking the track from Spittal Mains Farm. Any features or sites identified were assigned a unique site number, briefly recorded (see ORCA 2010b for details) and evaluated. Any sites identified by the DBA within the immediate vicinity were also visited to evaluate their nature, condition and potential impacts of the proposed works.

For the assessment of setting issues, SAM sites 62, 65 and 309 (see Figure 11.2) and a sample selection of non-designated sites were visited within the 2km ZTV. The photographic register detailing the record shots taken during the walkover survey can be found in ORCA 2010c.

11.7.3 Assessment of importance

The importance (or sensitivity) attributed to each identified area, site or feature will be determined using the criteria in Table 11.1, which incorporate general guidelines used by statutory agencies such as Historic Scotland, outlined in *Scottish Historic Environment Policy* (SHEP) 2009, *Scottish Planning Policy* (February 2010), with the companion Planning Advice Note (PAN 42): *Archaeology – the Planning Process and Scheduled Monument Procedures* 1994. It should be noted that a site that has not been statutorily designated can still be of high importance. Features that would require considerable further work to interpret them will be recorded as of uncertain importance and significance.

Table 11.1 Definitions of importance (or sensitivity) of cultural heritage sites

Level of importance	Criteria[101]
Very High	Archaeological and historical sites or areas of international importance, such as World Heritage Sites, and may also include some Category A Listed Buildings, Scheduled Ancient Monuments, Designed Gardens & Landscapes that are not only of national but of international importance
High	Archaeological and historical sites or areas of national importance, Category A Listed Buildings, Scheduled Ancient Monuments, Designed Gardens & Landscapes
Medium	Sites and areas of regional importance, Category B Listed Buildings
Low	Locally important sites or areas, other sites (e.g. findspots), Category C Listed Buildings
Negligible	Features that have been recorded but assessed as of no archaeological or historical interest, such as modern clearance cairns
Uncertain	Features that cannot be identified without detailed work, but potentially may be of some interest

The level of significance or sensitivity of a site usual correlates directly to its importance. However, some professional judgement may be needed when a site has more (or even less) significance than its importance would suggest. For example, a traditional croft house may be of only low importance as a structure, but may be associated with a person of high significance (even if of high local rather than national significance), such as a champion of crofter's rights, or an author, and thus the croft would be of higher significance than the structure on its own would merit. Where the significance of a site does not directly correlate with its importance, an explanation is given.

11.7.4 Assessment of magnitude and significance of direct physical impact

The magnitude of any potential adverse direct physical effect on a cultural heritage asset caused by the development proposals will be determined using the criteria shown in Table 11.2.

Table 11.2 Definitions of magnitude of direct physical effect

Magnitude or Level of effect	Criteria
Very High	Works would result in the complete loss of a site.
High	Works would result in the loss of an area, features or evidence fundamental to the historic character and integrity of the site. Severance would result in the complete loss of physical integrity.
Medium	Works would result in the loss of an important part of the site or some important features and evidence, but not areas or features fundamental to its historic character and integrity. Severance would affect the integrity of the site, but key physical relationships would not be lost.
Low	Works or the severance of the site would not affect the main features of the site. The historic integrity of the site would not be significantly affected.
Negligible	Works or the severance of the site would be confined to a relatively small, peripheral and/or unimportant part of the site. The integrity of the site, or the quality of the surviving evidence would not be affected.

[101]For definitions see (Scottish Government, 2010, para. 110-124; Historic Scotland, undated)

Magnitude or Level of effect	Criteria
Unknown	Groundbreaking works over features that have not been fully interpreted would reduce the chance of interpretation in the future. In the event of significant features this would constitute impact of high magnitude; for sites of lesser importance it is less problematical. Nevertheless, it remains a problem where features have not been or could not be interpreted.

The significance of any potential adverse direct physical impacts from the development proposal on any archaeological and historic sites, prior to the application of any management or mitigation strategies, will be determined by comparing the significance of the impact with the archaeological importance of each site or monument. The level of impact significance is defined as Major, Moderate, Minor, Negligible or Uncertain, as shown in Table 11.3.

Table 11.3 Determination of the significance of direct physical impact

Site Importance / Sensitivity	Magnitude of effect					
	Very High	High	Medium	Low	Negligible	Unknown
Very High	Major	Major	Major	Moderate	Minor	Uncertain/ Major
High	Major	Major	Moderate	Minor	Negligible	Uncertain/ Major
Medium	Major	Moderate	Moderate	Minor	Negligible	Uncertain/ Moderate
Low	Moderate	Minor	Minor	Negligible	Negligible	Uncertain/ Minor
Negligible	Minor	Negligible	Negligible	Negligible	Negligible	Uncertain/ Negligible
Uncertain	Uncertain/ Major	Uncertain/ Major	Uncertain/ Moderate	Uncertain/ Minor	Uncertain/ Negligible	Uncertain/ Negligible

11.7.5 Assessment of magnitude and significance of impact on setting

Introduction

> *"The setting of a heritage structure, site or area is defined as the immediate and extended environment that is part of, or contributes to, its significance and distinctive character*" (ICOMOS, 2005).

It can be seen from the above and the definitions of Setting in SPP2010 and Historic Scotland guidance (see Section 11.6.2 above) that Setting can be a fluid concept, open to interpretation and difficult to quantify and tabulate, considering the range of factors that may contribute to the setting of a site. There is no statutory definition of setting. Historic Scotland's 2010 guidance note on setting lists ten factors and indicates this is not exhaustive (Historic Scotland 2010a).

- *"current landscape or townscape context;*
- *visual envelope, incorporating views to, from and across the historic structure;*
- *key vistas, framed by rows of trees, buildings or natural features that give a structure a context, whether or not intentional;*
- *the historic structure's prominence in views throughout the surrounding area;*
- *character of the surrounding landscape;*

- *general and specific views including foregrounds and backdrops;*
- *relationships between both built and natural features;*
- *aesthetic qualities;*
- *other non-visual factors such as historical, artistic, literary, linguistic, or scenic associations, intellectual relationships (e.g. to a theory, plan or design), or sensory factors;*
- *a 'Sense of Place': the overall effect formed by the above factors.*

Defining the setting of a historic structure will ultimately rely on professional judgement based on a range of considerations, including those set out in this section. The assessment of cultural significance must be rooted in a wider understanding of the historic environment. Both the definition of setting and the assessment of the impact of new development will be case specific."

All but the last three of the bullet points are visual- or landscape-related and, in order to keep the assessment clear, concise and robust, are addressed in separate landscape and visual sections below. This approach and the terminology used will also allow for a certain amount of standardisation with Chapter 10: Landscape and Visual Impacts. However, it is factors of setting that are addressed in this chapter, not landscape and visual impacts as defined in Chapter 10.

In this case, addressing visual- and landscape-related factors is enough to identify and evaluate all but the most serious setting concerns. These will be addressed individually, site by site and include, where relevant, the non-visual and – landscape factors outlined above.

In summary:
The **Landscape** assessment considers the changes likely to result from the proposed development to the character of the landscape in how it relates to cultural heritage assets. This may include physical changes to the fabric of the landscape, effects on significant individual elements of the landscape, and effects on characteristic combinations or patterns of elements, all in relation to archaeology and cultural heritage. It includes the factors identified by Historic Scotland concerning the current landscape or townscape context, character of the surrounding landscape and relationships between both built and natural features.

The **Visual** assessment considers changes caused by the proposed development in the composition and character of the views to and from the cultural heritage asset, with the asset itself considered as the main receptor and visitors to it or viewing it considered as secondary receptors[102]. It includes the factors identified by Historic Scotland concerning the visual envelope, incorporating views to, from and across the historic structure; key vistas, framed by rows of trees, buildings or natural features that give a structure a context, whether or not intentional; the historic structure's prominence in views throughout the surrounding area; general and specific views including foregrounds and backdrops.

[102] See (Historic Scotland, 2010a) setting guidance note para 4.10 for this distinction

Landscape

The level of **sensitivity** of a landscape to change in relation to the setting of cultural heritage assets can be broadly defined as in Table 11.4.

Table 11.4 Levels of landscape sensitivity in relation to setting

Landscape Sensitivity	Description of example factors
Highly sensitive	Areas of landscape that are highly valued in their contribution to a site's appreciation or understanding, particularly rare or distinctive historic landscapes, or considered susceptible to small changes because a heritage site is a key part of it
Moderately sensitive	Areas of landscape that are moderately valued in their contribution to a site's appreciation or understanding, are considered of historic value locally, are tolerant of moderate levels of change because heritage sites are not key to the landscape
Slightly sensitive	Areas of landscape that are generally more commonplace and/or contribute little to a site's appreciation or understanding, are considered potentially tolerant of noticeable change, or undergoing substantial development such that their character is one of change and heritage sites within it have therefore experienced much change to their surroundings
Unknown	Areas of landscape where it is uncertain how they contribute to a site's appreciation or understanding, because the feature or asset itself could not or has not been understood or interpreted

The **magnitude** of change to how a landscape relates to the setting of cultural heritage assets can be broadly categorised as:

Table 11.5 Magnitude of change to landscape setting

Landscape Setting Magnitude	Description of example guidelines
Very High	The removal of, or a fundamental and irreversible change to, the relationship between a heritage asset and a historically relevant landscape
High	A noticeable change to the relationship between a heritage asset and a historically relevant landscape over a wide area or an intensive change over a limited area
Medium	Small changes to the relationship between a heritage asset and a historically relevant landscape over a wide area or noticeable change over a limited area
Low	Very minor changes to the relationship between a heritage asset and a historically relevant landscape over a wide area or minor changes over a limited area
Negligible	Changes to a historically relevant landscape cannot be discerned or perceived in relation to the heritage asset

Visual

The level of visual sensitivity of the setting of a cultural heritage asset can be broadly defined as in Table 11.6. Sensitivity is not directly equivalent to the importance of the asset. The receptor is the asset itself, but can also include visitors to it.

Table 11.6 Level of visual sensitivity

Visual sensitivity	Description of example factors
Highly sensitive	Receptors for whom or from/to which the view is important and where changes would be particularly noticed. For example: • the setting of nationally important sites such as SAMs, where the view in question is of historic or heritage importance and relevant to it • highly visited sites • sites that have or are a clearly visible part of highly valued or key views • sites that are a major element of an Inventoried designed landscape
Moderately sensitive	Receptors for whom or from/to which the change in the view is a small element in the overall view, not critical to the visual setting, or where the nature of the view is of secondary importance. For example: • sites that have or are part of little valued, secondary or minor views • sites that are little visited or usually only seen from moving vehicles (except tourist attractions or feature on tourist routes) • sites that are a secondary element of a designed landscape, or hardly visible in highly valued or key views
Slightly sensitive	• Receptors for whom or from/to which the change is unimportant or irrelevant

The **magnitude** of change is a function of the scale and type of change to the view of, to or from the heritage receptor under consideration. This includes the distance to the change, whether the change blends in or stands out, the location of the development within the view and the extent of the view affected.

The magnitude of visual change for the setting of cultural heritage assets can be broadly categorised as in Table 11.7.

Table 11.7 Magnitude of visual change

Visual Magnitude	Description of example guidelines
Very High	The proposed development overpowers and radically alters or removes the view and completely changes its character and quality. For example: o the development is the only view in the near-ground; o lies directly in the foreground removing a line of view to which the site has been deliberately oriented or designed; o overpowers and dominates the horizon and skyline in the near, middle or distant ground.
High	The proposed development dominates the view and substantially changes its character and quality. This is more likely to be the case for the setting of sites in the ZTV within 2km. For example: o the development in full view in the near-ground; o lies directly in the near-ground of the line of view to which the site has been deliberately oriented or designed; o projects well above the horizon or skyline in the near- or middle-ground.
Medium	The proposed development is clearly noticeable in the view and affects its character or quality. This is more likely to be the case for the setting of sites in the ZTV within 2-5km. For example: o the development in full view in the middle-ground of an otherwise open view; o lies in the middle ground of a designed view, but does not block or completely dominate or badly break the skyline.

Visual Magnitude	Description of example guidelines
Low	The proposed development does not affect the character and quality of the view, or it is a minor element likely to be overlooked by the casual observer. This is more likely to be the case for the setting of sites in the ZTV within 5-10km. For example: ○ the development visible in the background or part of a wide view; ○ temporary loss of an element of the view, such as vegetation, or stone field dykes, which are only partially visible.
Negligible	The proposed development cannot be discerned in views relevant to the setting of heritage assets.

Significance of impacts on setting

The significance of the various effects of the proposed development on the setting of cultural heritage assets derives from the combination of the **magnitude** of change and the **sensitivity** of the heritage asset's setting, of the associated landscape or of those human receptors who value a particular view to or from it. This is shown in Table 11.8 below. It should be noted that the categories are guideline levels only, since assessments of magnitude and sensitivity, as well as the choice of significance category into which an impact is placed, are matters of professional judgement. The level of impact significance is defined as Very Major, Major, Moderate, Minor or None.

Table 11.8 Determination of significance of impact on setting

Impact Significance on Setting	Definition	Guideline landscape setting impact levels	Guideline visual setting impact levels
Very Major	An irreversible and radical change to the setting, removing or preventing appreciation of key characteristics of the asset	Major change to a highly sensitive or valued landscape, which removes or prevents appreciation of characteristics key to a heritage asset, or permanent change to or removal of less sensitive or valued landscape	The changes caused by the development overpower and completely alter views and vistas key to a highly sensitive heritage receptor
Major	A fundamental or key change to the setting	Noticeable change to a highly sensitive or valued landscape key to a heritage asset, or intensive change to less sensitive or valued landscape	The changes caused by the development dominate and substantially alter the character of a key or important view in relation to a highly sensitive heritage receptor
Moderate	A material but non-fundamental change to the setting	Noticeable change to a landscape not key to a heritage asset, tolerant of moderate levels of change	The changes caused by the development are clearly noticeable and affect the quality of a view, but are not critical to the receptor, or the view itself is of secondary importance

Impact Significance on Setting	Definition	Guideline landscape setting impact levels	Guideline visual setting impact levels
Minor	A detectable but non-material change to the setting	Minor changes to a landscape considered tolerant of change in relation to heritage asset	The changes caused by the development are a minor element in a view and/or the view is incidental or of minor or no importance to the receptor
None	No detectable change to the setting	No discernible change to the landscape	The proposed development cannot normally be perceived

Importance of setting impacts

In order to evaluate how important the impact on the setting really is, the importance of the site that the setting is associated with must be related to the impact, otherwise a major impact on the setting of a site of low or negligible importance would take on more significance than it merits. Impacts of **Moderate** and **Major** importance are significant effects that may require consideration by the competent authorities (The Scottish Government, 2007).

Table 11.9 Determination of the Importance of Setting Impacts

Site Importance / Sensitivity	Significance of Impact on Setting					
	Very Major	**Major**	**Moderate**	**Minor**	**None**	**Unknown**
Very High	Major	Major	Major	Moderate	Minor	Uncertain/ Major
High	Major	Major	Moderate	Minor	Negligible	Uncertain/ Major
Medium	Major	Moderate	Moderate	Minor	Negligible	Uncertain/ Moderate
Low	Moderate	Minor	Minor	Negligible	Negligible	Uncertain/ Minor
Negligible	Minor	Negligible	Negligible	Negligible	Negligible	Uncertain/ Negligible
Uncertain	Uncertain/ Major	Uncertain/ Major	Uncertain/ Moderate	Uncertain/ Minor	Uncertain/ Negligible	Uncertain/ Negligible

11.7.6 Study limitations and assumptions

The DBA conducted for this report was extensive but not exhaustive. The walkover survey of the proposed location identified that these particular fields have been intensively cultivated, which will have removed or masked archaeology that showed on the surface. However, potential for undetected subsurface archaeology is likely to be limited, because the landowner advised that the soils were thin (0.3-0.4m) and lay directly on bedrock and that during ploughing, no concentrations of stone indicative of buildings or any artefacts of any age had been found.

It was not possible to visit Site 67, close to the development (see Figure 11.1), due to aggressive livestock.

The potential margin of error in the handheld GPS used during the walkover survey and the OS mapping (both old and current) used in the DBA has to be taken into account when identifying sites and determining impact. This error may be up to 10m in places.

The factors affecting the identification of the ZTV and its limits are discussed in Section 10.7.4. The ZTV has expanded since the time of fieldwork, but these changes have been incorporated in the DBA, the impact assessment and the maps in this chapter. There were a number of sites in the visual envelope beyond 2km (see Figure 11.3). The effect of the development on visual- and landscape-related setting issues was considered similar to the landscape and visual impacts looked at in Chapter 10. Therefore there was no added value by visiting each of these sites, since the issues are well-represented by the depictions of views and visualisations in Appendix 10-A.

It is assumed that any direct physical impact on a site from any ground-breaking works at any stage in the life of the project is adverse and, by the very nature of archaeological sites permanent and irreversible. No operational effects have been identified that are different from the impact of the construction of the station. The decommissioning of the converter station site is expected to essentially reverse any adverse setting impacts associated with its construction, and is not addressed further in this assessment.

This assessment is the product of the work of more than one professional, although there has been a final review by a single person in order to remove inconsistencies and anomalies.

11.8 Established baseline conditions

11.8.1 Historic environment potential

Caithness lies within one of the richest archaeological landscapes in Europe (Barber 2006) and possesses physical evidence for human occupation and activity dating from the Mesolithic right up to WWII. Although much of the area could be described as consisting of poor and marginal land, this has resulted in an exceptionally good level of archaeological preservation as it has consequently not been exposed to modern industrial farming to any great extent. Furthermore, the use of the local flagstone in construction means that a variety of upstanding and well preserved monuments survive. Despite this potential, there has been relatively little archaeological work conducted in the area in the past.

More recently, however, there has been an upsurge of interest and a number of new studies and surveys have highlighted the wider archaeological significance of the area and have demonstrated the potential for the discovery of previously unknown sites (e.g. Pannett and Baines, 2002; Heald and Jackson, 2001; Baines, Brophy and Pannett, 2003; MacKie, 2007; and Batey, 1987). As a result, our understanding of the prehistoric landscape of the region should be regarded as partial rather than exhaustive and there is a strong likelihood that further prehistoric sites may lie undiscovered.

Surviving archaeology of later periods such as traditional post-medieval stone farm buildings and sites associated with WWII also remain a valuable resource and an important part of the vernacular built heritage and character of the area. The potential for further significant discoveries to be made concerning sites of these periods is limited. This is reflected in the ‘Historic Land-Use Assessment’ maps

(RCAHMS, 2010) of the immediate area that show that the vast majority of the current landscape in the vicinity of the development relates to the post-medieval period.

11.8.2 Sites and monuments within the development footprint

No known sites were identified by the DBA in the fields containing the footprint of the proposed converter station, nor the shelterbelt and track on the north side of it. Only one site was identified (Site 290) during the walkover survey of this area (see Figure 11.1). The site comprised a modern (20th-21st century) heap of clearance stone of negligible importance. The fields have been intensively cultivated, which will have removed or masked archaeology. The landowner advised that the soils were thin (0.3-0.4m) and lay directly on bedrock and that no concentrations of stone indicative of buildings or any artefacts of any age had been discovered during ploughing.

11.8.3 Sites and monuments within 1km of the converter station

A total of 35 cultural heritage sites (including Site 290, the only site within the development footprint) were identified within 1km of the proposed location of this converter station by the DBA and walkover survey (Figure 11.1). These are presented in detail in Appendix 11-A (Gazetteer of Sites) in tabular form by site number for ease of use. The importance and significance of each individual site is then assessed in Appendix 11-B and the key findings summarised below.

Most (23) of these are of **low importance**, comprising sites such 18th-19th century quarries and ruined or upstanding farm buildings. There is one site that may be of low but could be of medium importance (Site 295). The importance of the site is uncertain because the nature of this small mound (possibly farm-related or possibly prehistoric) is not known. There are six sites likely to be of **medium importance**, including a lead mine, a broch that may be buried below a stackyard, Bronze Age hut circles and prehistoric mounds (sites 69, 72, 306, 308, 310, 315). There are five sites of **high (national) importance**, all of them SAMs (sites 65, 309, 311, 312, 314), comprising three Neolithic cairns, a Bronze Age hut circle and the remains of a medieval church, burial ground and hospital (Site 65).

These sites all lie outwith the development footprint and will not be subject to direct physical impact by the proposed development. However, the **scheduled monument of St Magnus' church, burial ground and hospital** lies only 450m south-southeast of the converter station site. This monument (and the other four SAMs listed above) carry statutory protection preventing intrusive works without consent and this protection also means that the setting of the SAMs is a material consideration in the planning process.

The Scheduled Monument of St Magnus' church, burial ground and hospital

The following information is derived from field notes, the RCAHMS Canmore web database (RCAHMS, 2010) and from Historic Scotland's online database via the Scheduled Monument Search engine (Historic Scotland, 2010).

The scheduled area of Site 65 measures a maximum of 100m east-west by 70m north-south, being within a recent boundary fence surrounding the monument. The SAM consists of the remains of St Magnus' church, hospital and graveyard, first recorded in a Royal charter of 1476. The upstanding remains belong to the chapel, which sits within a raised stony bank, containing a burial ground used by the Clan Gunn. This chapel of the hospital served as the parish church of Spittal until the 16th century. ('Hospital' indicates a place of hospitality, including a

charitable foundation giving shelter to wayfarers and the poor, or care for the sick, Myatt, 1975.) The complex is surrounded by the remains of a turf-covered stone enclosure wall (see Plate 11.1).

The **chapel** itself is a plain, rectangular, east-west oriented flagstone building 21m x 7m with no visible decorative features or windows, and a doorway in the south wall. The east gable stands to a height of 2.7m, while the other walls survive to a height of 1.0 to 1.7m. A gravestone dated 1819 lies in the church, which contains rubble from the collapsing walls and is overgrown with nettles. The chapel was ruinous by 1910 and is still in a state of active decay.

The **hospital** remains comprise a sunken rectangular area 31m x 4m to the south of the church. Between the sunken area and the chapel are the remains of amorphous turf-covered footings, presumably a range associated with the hospital, the south wall of which can be seen in the stony bank to the south of the chapel. The last remains of the hospital were demolished in the first half of the 19th century.

The adjoining **graveyard** to the south of the church contains unmarked stones and three stones with inscriptions. Burials partly overlie the footings of the hospital buildings. The burial ground was used by the Clan Gunn and still in occasional use in 1872, with the most recent gravestone dated to 1911. It is now disused and overgrown with nettles and thistles.

The monument is considered to be of **national importance**

> *"because it contains upstanding medieval ecclesiastical remains that can be documented… from 1476. The monument's importance is enhanced because it is the site of a hospital that was an important stage on two pilgrimage routes: the route north to St Magnus' in Orkney and that south to St Gilbert's at Dornoch…. The monument is a valuable resource as it provides evidence, and has the potential to provide further evidence, through excavation and analysis, which may increase our understanding of secular and religious architecture, monastic settlement, the range of international contacts brought about through the important medieval pilgrimage trade, parish evolution, medical history, burial practices, and material culture during the medieval and early modern period*[103]*."*

The setting of the monument, which is not referred to by Historic Scotland as one of the factors that make the site nationally important, is described in Section 11.8.4 below.

11.8.4 Landscape setting, sites and monuments within the 2km ZTV

Landscape Setting within 2km ZTV

The **modern landscape** in the locality of the converter station is described and characterised in Chapter 10: Landscape and Visual Impacts (see Section 10.11). As this states, the converter station is located in a small dip in the landscape, in open fields that are mostly bounded to the north and south by shelterbelts (with gaps at the west end of both shelterbelts allowing views out to the northwest and to the south, see Figure 11.2), and bounded to the west by the ridge of Achanarras Hill and to east by Spittal Hill, along the slopes of which runs the A9(T) trunk road.

[103] Quoted from Historic Scotland's assessment of the site's national importance (see Historic Scotland, 2010b)

It should be noted that in the last decade blocks of mixed woodland have been planted on the east slope of Achanarras Hill and at the north end of the Achanarras ridge that are not yet depicted on Ordnance Survey maps (but see Figure 6.2). A line of electricity towers carrying overhead power cables runs north-northwest to south-southeast along the west side of the fields in which the development would be set, beside the Achanarras Burn (see Appendix 11-D, Plate 11.5). Also within the open fields in the immediate locality of the development are two farmsteads, Achanarras and Spittal Mains. The outbuildings of Spittal Mains, 850m south of the converter station platform, includes large agricultural sheds (see Plate 11.1 and Appendix 11-D, Plate 11.5), which are quite common in the wider agricultural landscape of Caithness.

The **historic landscape** here[104] is one of 18th- to 19th-century rectilinear fields and farming in the shallow valley, with 19th- and 20th-century managed woodland, including the shelterbelts to the north and south and larger areas of trees on the slopes of Spittal Hill and Achanarras Hill to the east and west. Some of the more recent plantations on Achanarras ridge are contained within the 18th-19th century rectilinear field patterns and around Achomchairle to the northeast within 18th-19th century crofting land use patterns. The route of the current A9(T) trunk road appears to be at least late 18th- or early 19th-century in date (Thomson 1832, Calder 1887 appendix 2; Watson 1985). There is evidence for a roadway to the south of Spittal from at least c1600 AD, probably a causeway built of turf, named as "The Myre Causay" (now Causeymire) on Pont's map of the period, published by Blaeu (Blaeu, 1654; Watson, 1985)

It is a reasonable assumption from historical records that there were even earlier routeways across the area (Watson, 1986a), with the pilgrimage route running roughly south north across Causeymire towards Halkirk and a route from Wick and Watten across to Westerdale, Strathmore and beyond (Watson 1986a & b). Although the precise line of these is unknown and no physical evidence is visible, it is very likely that St Magnus' church, burial ground and hospital was located beside these routes.

The very top of Spittal Hill where an annual market was held (Site 340), and the Achanarras hill ridge and the moss to the northwest of the development location, beyond the plantations, are moorland and rough grazing, sometimes drained. These are the areas (apart from the modern drainage ditches and the large spoil heaps of Achanarras Quarry, Site 302) most likely to resemble how they appeared in the medieval period when St Magnus Chapel and Hospital were in use. It is even possible that they may have changed little from the prehistoric period, indicated by the concentration of Neolithic cairns and Bronze Age hut circles identified here, (Sites 308, 309, 310, 311, 312, 314 and 315) although when they were built, the climate was slightly warmer and drier.

Sites and Monuments with settings that may be affected within the 2km ZTV

Within the 2km radius ZTV, a total of 38 sites were noted, ranging from small post-medieval farmsteads to Neolithic chambered cairns (see Figure 11.2; Appendix 11-A). Five of the sites are of high importance (all of them SAMs, see Table 11.10), six of moderate, two low-moderate and 24 of low importance (see Appendix 11-B). There are no listed buildings or other sites with statutory designations within the 2km ZTV. The historic and current landscape setting of these is summarised above.

[104] as defined on Historic Land-use Assessment maps, produced by HS and RCAHMS <http://hla.rcahms.gov.uk>

Table 11.10 Sites of high or very high importance within the 2km ZTV

Site No.	Site Name and Type	SAM No	Minimum distance from proposed converter station platform
65	St Magnus church, burial ground and hospital	5413	450m south-southeast
309	The Shean, Neolithic Cairn	475	800m west
311	Achanarras B, Neolithic Cairn	2400	800m west-northwest
314	Achanarras Hut Circle	2402	500m west-northwest
330	Achies East Broch	2235	1200m west

The sites of moderate and low-moderate importance (Sites 64, 69, 72, 295, 306, 308, 310 and 340) comprise a prehistoric cairn, two sets of Bronze Age hut circles, two brochs, a lead mine, the site of a medieval market and a possible prehistoric mound. Sites of low importance are mostly post-medieval buildings, farmsteads and associated features, usually completely ruinous if they survive at all. Of these sites, specific mention should be made of Site 64, a turf-covered probable Neolithic chambered cairn known as Torr an Fhidlier, or Fiddler's Mound. This lies approximately 1km to the southeast of the proposed converter station site in the open fields of Spittal Mains Farm. The proposed converter station site lies in full view of the mound. The mound is considerably denuded and robbed, and is compromised by the modern feeding station and concrete water tank on top (see Plate 11.2). The setting of the mound has also been subject to change, with the A9(T) trunk road 70m to the west, a large shelterbelt a similar distance to the south and a working farmstead (Spittal Mains) with large sheds 250m to the west. As such, the site's setting is one of change and no longer seems to be sensitive or a significant factor in the site's importance.

Details of all the sites can be found in the Site Gazetteer (Appendix 11-A, Table 2).

It should be noted that the Fairy Hillock, a Scheduled Neolithic chambered cairn 1.3km to the southeast (Site 62: the location though not the site number can be seen on Figure 11.1), and Achanarras A, a Scheduled Neolithic cairn 0.8km to the west-northwest (Site 312, see Figure 11.1) were both shown not to be in the visual envelope. The former is screened off from the development by the shelterbelt southeast of Spittal Mains Farm and the latter, which lies in a small fold in the land, by landform.

The Scheduled Monument of St Magnus' church, burial ground and hospital

Most concern has been expressed about the impact of the converter station on the setting of the Scheduled Ancient Monument of St Magnus' church, burial ground and hospital some 450m to the south-southeast of the converter station platform.

The immediate setting of the monument, within its modern perimeter fence, is overgrown with nettles and thistles, which have deep taproots that will be damaging the archaeology. The church ruins are in a state of active decay.

The monument lies on a slightly terraced slope in the shallow valley and is now so ruinous and low-lying that it is difficult to spot at a distance and has no prominence in views or the landscape, even from the A9(T) or the slopes of Achanarras Hill for example (see Appendix 11-D, Plate 11.5).

Very locally, the medieval SAM is set in a landscape of open fields bounded by higher ground to the east and west and shelterbelts to the north and south. Although open, the rectilinear field and ditch pattern and intensively cultivated land in which the site is set dates to the 19th century and is later than the date of the monument. The exact proximity of St Magnus church, burial ground and hospital to the medieval pilgrimage route and the precise route of the roadway at this location is unknown and no physical evidence is visible. The farm track that currently runs north-northwest south-southeast on the east side of the SAM was clearly laid out as part of the 19th-century improvement field pattern imposed on the landscape. It forms a strong focal line, leading north beside the converter station to a gap in the shelterbelt (see Appendix 11-D, Plate 11.3) and south to Spittal Mains Farm.

There are views from the site of the northern end of the Achanarras Hill ridge line to the northwest and of Spittal Hill to the east, which form the least changed aspects of what would have been near ground views contemporary with the medieval monument. The SAM also has middle and far distance views to the north and northwest over the shelterbelt to the Hill of Lieurary (see Appendix 11-D, Plate 11.3) and to the south to the Causeymire wind farm with the hills of southern Caithness in the far distance (see Appendix 11-D, Plate 11.4).

The landscape setting for St Magnus church, burial ground and hospital is one of change, being that of a working farm, with the SAM dominated by Spittal Mains Farm and its large modern sheds only 150-200m to the south (see Plate 11.1). There are several shelterbelts and plantations in the local area, as well as electricity towers with overhead powerlines running north and south near to the site. Plantations and Achanarras Quarry with its spoil heaps form much of the skyline to the west of the monument. In the middle distance to the south is Causeymire wind farm (Appendix 11-D, Plate 11.4) and in general the middle distance views are of an open improved agricultural landscape, including farm buildings, squared fields and shelterbelts (see Appendix 11-D, Plates 11.3a and 11.3b).

11.8.5 Landscape setting, sites and monuments within the 2-5km ZTV

Landscape setting within 2-5km ZTV

The **modern landscape** of the area is described and characterised in the Chapter 10: Landscape and Visual Impacts, (see Sections 10.8.2 and 10.11). As this states, it is quite an open and sparsely populated landscape, although the converter station is located in a space that is defined at a less open and more local level, see Section 11.8.4 above. Causeymire wind farm (approximately 20 turbines) lies some 5km to the south in open landscape. The turbines thus draw the eye and are moderately prominent in the mid-range of views to the south from many cultural heritage sites, including St Magnus church, burial ground and hospital (see Appendix 11-D, Plate 5). However, almost the entire visual envelope lies in the in the northwest quadrant of a circle centred on the converter station, comprising mostly fields and farming, some peaty mosses and the small town of Halkirk 5km away to the north (Figure 11.3).

The **historic landscape**[105] in the 2-5km ZTV area is essentially a patchwork mixture one of 18th- to 19th-century rectilinear fields and more open rough grazing on the mosses, with some relict crofting patterns, occasional 19th to 20th century plantations and isolated sites surviving within this. The mosses tend to be areas that may span a date range from the prehistoric to the present, although substantial parts of them have undergone peat extraction in the 19th and 20th centuries. Some unimproved medieval and post-medieval rough grazing survives around the fringes of the mosses, but mostly the landscape is one of change, reflecting post-improvement 18th-20th century activities, including rectilinear field patterns, ruined and modern farms, including large agricultural buildings. The 19th century railway and the early 19th-century planned town of Halkirk (created during the clearances on the site of an earlier settlement) are also in this quadrant.

Sites and monuments with settings that may be affected within 2-5km ZTV

Only sites of moderate to very high importance (i.e. of regional, national or international significance) were assessed for the ZTV between 2 and 5km from the converter station (Figure 11.3). There are two sites of **high importance** - Tulloch of Milton Neolithic chambered cairn (Site 331) and the ruins of the medieval Braal Castle at Halkirk (Site 339), both of which are SAMs. Nine sites of **moderate importance** were identified initially, but two of them, B-Listed churches in Halkirk (Sites 357 and 358), proved to be outwith the ZTV because of the effect of the surrounding town. No other sites with statutory designations were identified in the 2-5km ZTV. The other sites of moderate importance comprised a group of hut circles, a possible cairn, a possible broch, three funerary sites and a clan battle site. Further details on these sites can be found in the Site Gazetteer (Appendix 11-A; Table 3).

11.8.6 Landscape setting, sites and monuments within the 5-10km ZTV

Landscape setting within 5-10km ZTV

The **modern landscape** of the wider area is described and characterised in the Chapter 10: Landscape and Visual Impacts (see Section 10.8.2). As this states, it is quite an open landscape, with high ground, moorland, forestry and improved fields (mostly pasture) and although sparsely populated is clearly actively used and affected by people. To west, the ZTV encompasses mostly open moor and moss with frequent blocks of coniferous plantation, rising up to the prominent hills of Ben Dorrery and Beinn Freiceadain. To the northwest and north, the ZTV mostly encompasses more fertile land where fields and farming dominate.

The **historic landscape**[106] in the 5-10km ZTV area essentially falls into two broad types. To the north and northwest, it is a mixture of 18th to 19th century rectilinear fields and more open rough grazing on the mosses, with some relict crofting patterns and occasional 19th to 20th century plantations, similar to that described for the 2-5km ZTV above. The landscape is one of change, mostly reflecting post-improvement 18th to 20th century activities, including the railway, rectilinear field patterns, ruined and modern farms, including large agricultural buildings, with earlier landscapes surviving as patches in the mosses, or as isolated sites within the more recent landscape.

[105] as defined on Historic Land-use Assessment maps, provided by HS and RCAHMS <http://hla.rcahms.gov.uk>
[106] as defined on Historic Land-use Assessment maps, provided by HS and RCAHMS at <http://hla.rcahms.gov.uk>

Westwards, the open high ground, moorland, mosses and forestry appear to reflect a landscape that has changed less, with more prehistoric to medieval cultural heritage surviving. However, the organisation of the landscape is one of 18th to 20th century estate management, and its appearance is often a product of the clearances, sheep grazing and forestry grown for commercial purposes. Changes to the landscape are further evidenced by the telecommunications mast and support building on the summit of Ben Dorrery.

Sites and monuments with settings that may be affected within 5-10km ZTV

Only sites of high to very high importance (i.e. of national or international significance) were assessed for the ZTV between 5 and 10km from the converter station (Figure 11.3). Thirteen sites were identified, all of them SAMs, and no sites with other statutory designations. To the north and northwest the sites comprised two Neolithic chambered cairns and three brochs. Westwards, there is a cluster of eight sites, all on the slopes or summits of Ben Dorrery and Beinn Freiceadain, comprising five Neolithic cairns of various types, two hut circles and a hill fort. Further details on these sites can be found in the Site Gazetteer (Appendix 11-A; Table 4).

11.9 Range of possible impacts

The potential effects on the historic environment that could be caused by the converter station may include:

- direct physical impacts on cultural heritage assets that may be caused by the construction and maintenance of the converter station, including ancillary works, drainage, access routes and temporary compounds and laydown areas as shown on Conceptual Landscape Mitigation Plans (see Figure 10.5);
- direct physical impacts on cultural heritage assets that may be caused by the mitigation strategies such as tree-planting; and
- indirect impacts on the historic landscape and setting of the identified cultural heritage sites and resources caused by the presence of the converter station.

11.9.1 Direct physical impacts

No important sites will be directly impacted by the development.

Only one site has been identified that will be directly impacted by the construction and maintenance of the converter station, including ancillary works. However, Site 290 is a modern clearance cairn of negligible sensitivity. Although the works will result in the loss of this site, the significance is **negligible** and no mitigation strategy is necessary.

No sites will be physically impacted by ground-breaking mitigation strategies such as tree planting, assuming such works are confined to the areas shown on Conceptual Landscape Mitigation Plans (see Figure 10.5).

11.9.2 Impacts on setting

Settings are often individual to each asset or discrete groups of assets and therefore the impact of any development on setting is case-specific and this has been addressed in the impact assessment (see Appendix C). However, it is possible to summarise since there are several common potential impact issues.

Taken as a whole, impacts created during construction will be short-lived (e.g. compounds, temporary spoil heaps), therefore these have not been considered in relation to cultural heritage setting unless they are predicted to have a permanent impact. Permanent impacts will last for the lifetime of the development at least, and some may continue beyond decommissioning and remediation. Permanent impacts on setting may include:

- the introduction of a new large-scale building into the landscape, changing character and focal points;
- introduction of a building that is dominant enough to affect the setting of sites so that the appreciation and understanding of an asset is reduced;
- blocking or alteration of views to, from or between heritage assets;
- removal of trees opening up views of the development to more assets;
- the introduction of new mitigation planting; and
- changes to the immediate surroundings of the converter station, such as the realignment of fence lines, ditches and tracks, as depicted on Conceptual Landscape Mitigation Plans (see Figure 10.5).

11.9.3 Pre-mitigation assessment of likely effects

The area in the immediate vicinity of the development is likely to be significantly affected. However, even with this zone parts of the area within 2km of the development are not affected at all, mostly due to the effect of existing shelterbelts and plantations (see Figure 11.2). Beyond the immediate vicinity, it is the northwest quadrant of the 10km radius study area centred on the converter station that is affected, although several areas within this quadrant are not affected at all (see Figure 11.2). Between west and west-northwest all or part of the full height of the station (walls and roofs) and some of the associated busbars will be theoretically visible, from west-northwest to north-northwest the roofs are visible, whilst from north-northwest to north only the highest part of the roof will be visible. The level of visibility is reflected in the level of impact identified, as is distance from the development (see Appendix 11-C).

The following SAMs, which were highlighted for consideration by Historic Scotland (see The Highland Council 2010 and Annex I) in terms of impact on their setting, are not within the visual envelope of the development and their setting will not be affected:

- Ballone, broch 360m northeast of Spittal (SAM Index no. 521)
- Knockglass, broch east of (SAM Index no. 561)
- Fairy Hillock, chambered cairn southeast of Spittal Mains (SAM Index no. 528); Site 62, see Section 11.8.4 above
- Achies, broch 180m east of (Historic Scotland Index no. 509)
- Achanarras, cairn 800m northwest of (SAM Index no. 2401); Site 312, see Section 11.8.4 above
- Spittal Farm, broch 180m east of (Historic Scotland Index no. 582)
- Dale Farm, broch 800m southeast of (Historic Scotland Index no. 545)
- Cnoc Donn, broch 600m east-southeast of Dale Farm, Halkirk (Historic Scotland Index no.541)
- Halsary, standing stones 450m west-northwest of and 620m northwest of Halsary (Historic Scotland Index no. 5301)

- Gallow Hillock, cairn on Backlass Hill (Historic Scotland Index no. 450)

0-2 km ZTV

The potential impact on all sites of archaeological and historical interest within the 0-2km ZTV were assessed, as at this distance, the converter station could cause a high magnitude of change to the landscape setting within a very limited area, and high magnitude of change to visual aspects of setting. There are no designed views that will be impacted by the development, although there are unintended views between sites of similar dates and a focal line northwards towards the shelterbelt from the east side of the St Magnus church, burial ground and hospital past the east side of the converter station. The landscape is clearly one of change, with unimproved moor on the higher ground to the west and east and moss to the north, significantly changed by quarrying and spoil heaps, the imposition of rectilinear fields, by modern farming practices, such as tree plantations, shelterbelts and the construction of large agricultural buildings, and by modern installations such as the electricity towers with overhead powerlines and the Causeymire wind farm (see Section 11.8.4 above).

Six sites are regarded as **highly sensitive** to changes to their setting (sites 65, 308 to 311 and 314) and a further eight **moderately** so (sites 63, 64, 67, 294, 295, 321, 330 and 340). The other 24 sites are only **slightly** sensitive to changes to their setting.

It is assessed that the setting of seven sites could undergo a **high** or **very high** magnitude of change, 22 a **medium** level of change and 12 could undergo a **low** or **negligible** change to their setting (see Appendix 11-C; Table 1 for full details).

Table 11.11 Summary of magnitude of potential change to setting

Magnitude of Potential Change	Sites with potentially affected settings
Very High	290
High	63, 65, 67, 294, 295, 321,
Medium	64, 72, 296, 299, 301, 302, 303, 304, 305, 307, 308, 309, 310, 311, 314, 330, 340, 341, 344, 346, 347, 348,
Low	68, 69, 306, 342, 343, 345, 349
Negligible (or None)	42, 60, 62, 312, 315,

(see Appendix 11-C; Table 1 for detailed impact assessment).

Sixteen of the 29 sites with potential changes to their setting of medium or higher magnitude are of low importance, such as post-medieval farmsteads and farm buildings, both ruined and active. When the magnitude of change is compared with the site's importance, it can be seen that the actual importance of the potential pre-mitigation impact on the setting of most sites is minor or negligible (see Section 11.7.5).

Table 11.12 Summary of importance of potential impact on setting

Importance of Potential Impact	Sites with potentially affected settings
Very Major	None
Major	65
Moderate	64, 308, 309, 310, 311, 314, 330,
Minor	63, 67, 72, 294, 295, 301, 302, 303, 304, 305, 306, 307, 321, 340, 341, 346,
Negligible	42, 60, 62, 68, 69, 290, 296, 299, 312, 315, 342, 343, 344, 345, 347, 348, 349

(see Appendix 11-C; Table 1 for detailed impact assessment).

Prior to the identification of mitigating measures and application of intervention measures, the potential impact upon St Magnus' church, burial ground and hospital (Site 65) is of major importance and has been raised as a serious concern by Historic Scotland (see Appendix 11-D, Plate 11.6). The potential impacts of moderate importance upon four Scheduled Ancient Monuments (Sites 309, 311, 314 and 330) within this ZTV are potentially of the next most significance prior to mitigation measures and the continued growth of existing plantations. These sites comprise two Neolithic cairns, a probable Bronze Age hut circle and an Iron Age broch respectively. The impact on moderately important prehistoric Sites 64, 308 and 310 (a prehistoric mound and two groups of probable Bronze Age hut circles) could be of moderate significance.

2-5 km ZTV

Only the setting of sites of medium or high importance within this ZTV was assessed, because these were the ones that could be significantly affected. Nine sites were identified and assessed, of which two are SAMs, (Figure 11.3 and Appendices 11-A, 11-B and 11-C). None of them was highly sensitive in terms of setting, often because the town of Halkirk, the railway, forestry or modern farms and farm practices have already changed it.

The setting of one of the SAMs (Site 331) could be moderately affected by the roof of the converter station and four more sites of regional importance (Sites 350, 351, 352 and 356) could be moderately impacted by having part of the station in the background of (but not impeding) views to other sites of a similar period. (See Appendix 10-A, images for viewpoints 5, 6, 11 and 12 for similar examples of views and effects.)

5-10 km ZTV

Only the setting of sites of high importance within the 5-10km ZTV was assessed. These sites were the only ones that could be significantly affected since at this distance from the proposed converter station, the building is only likely to be seen in conditions of clear visibility. Thirteen sites, all of them SAMs, were identified and assessed, eight of them prehistoric sites clustered in a group 8.5-10km to the west (see Figure 11.3 and Appendices 11-A and 11-C). None of the sites are highly sensitive in terms of their wider setting because at such a distance from the station, only high, dominant or extremely visible features are relevant.

The magnitude of change to all of the sites and settings potentially caused by the converter station is low, usually because only the roof would be visible and/or the

station is too small a feature to stand out in such a wide landscape. In reverse, none of the sites are visible to the naked eye from the vicinity of the station and, in terms of the hillfort on the distant skyline (Site 322), the station is set too low to impact the dominance of this feature over the wider landscape (see Appendix 10-A, images for viewpoint 13 for examples of views and effects). Therefore, there will be no more than a **minor** impact on any site or setting within the 5-10km ZTV.

11.10 Mitigation

The continuous adaptation of the site design in response to concerns raised by consultations with organisations such as Historic Scotland has resulted in mitigation of the effects of the initial proposal on cultural heritage setting, separate from specific mitigation proposals and commitments. The building will sit in a slight dip in the landscape, which is surrounded by a combination of shelterbelts and higher ground, so that views of it are as contained and localised as possible (see Section 10.11 for a fuller description). The building will not be higher than the existing shelterbelt to the north of the site and thus will not break the skyline. It will emulate as far as possible the style of the agricultural sheds of the district. The converter station platform is now more contained than in the original proposal and will lie 595m away from cultural heritage site about which most concern has been expressed (Site 65, the Scheduled St Magnus' chapel, hospital and graveyard), not 300m as originally proposed.

In addition, existing shelterbelts and plantations, especially the shelterbelt to the southwest of Spittal Mains Farm, the one on the west slope of Spittal Hill, and the new plantations on Achanarras ridge, remove several sites from the visual envelope of the development, including the Scheduled Ancient Monuments of sites 62, 309 and 311. SAM sites 311, 314 and 330 are partly screened out by the plantations and may be completely screened out as the trees continue to grow.

Intervention measures specific to cultural heritage are listed in Table 11.12 below.

Table 11.13 Catalogue of Cultural Heritage intervention measures

Ref	Title	Measure
CH1	Avoidance of works near sites	The contractor will be made aware of those sites in closest proximity to the site (Sites 65, 67, 294 and 295). If the Ecological Clerk of Works (ECoW) identifies any activity which could impact on these sites directly or indirectly a buffer zone will be marked off to protect the site. The ECoW will make regular checks to ensure that no site is impacted on by the works.
CH2	Reporting historical artefacts	SHETL will instate a reporting protocol as part of the CEMD which will be agreed with The Highland Council Archaeologist for any accidental archaeological discoveries made during the construction works. The protocol will include contact information for the relevant cultural heritage authority (The Highland Council) and the requirement to stop work until an appropriate mitigation strategy is agreed with The Highland Council archaeologists. The content of the protocol will be part of the site induction for all site workers. The contractor and site ECoW will be responsible for ensuring the successful implementation of the measures in the protocol.

Several mitigation measures related to Landscape and Visual issues will also benefit cultural heritage setting issues. These are LV2 through LV5 and LV7 through LV12 (see Chapter 10, Table 10.6), concerning colour schemes, retention

of the focal line of the trackway and associated gap in the shelterbelt, planting, screening and minor landform changes around the edge of the converter station. In particular, in terms of mitigation measures concerning the setting of St Magnus' church, burial ground and hospital, measure LV12 will comprise clumps of planting on the south side of the converter station, which will include a mix of native trees such as oak, alder and Scots pine. The intention is that there will be enough trees so that in 15-20 years, views up to the roofline of the converter station from the monument will be significantly screened or filtered (see Figure 10.5, and Appendix 11-D, Plate 11.7).

11.11 Assessment of residual effects

11.11.1 Sites and settings within 0-2km radius ZTV

The sites and settings have been described above in Section 11.8.4, how they may be impacted in Section 11.9 and committed intervention and mitigation measures in Section 11.10. After implementation of mitigation measures, it is assessed that the setting of only one site, St Magnus' church, burial ground and hospital, will have an adverse effect of **moderate** significance, whilst the other sites will have adverse effects of **minor** or **negligible** significance (see Appendix 11-C; Tables 11.8 and 11.9 for definitions and Table 11.13 below for summary).

The reduction of the significance of impact on sites and their setting is because of factors such as limited visibility, shelterbelts that backdrop the station and prevent it from breaking the current skyline, new screen and filter planting, appropriate colour choice and the continued growth of young plantations. For example, see the photomontage visualisation for Viewpoint 3 in Appendix 10-A, which depicts how the development may look from close to Site 64, the moderately important prehistoric mound of Torr an Fhidlier, described in Section 11.8.4, Plate 11.2.

Site 65: St. Magnus church, burial ground and hospital

The development, which is to the north, will impact St Magnus' by placing a large converter station in one of the remaining open fields (see Appendix 11-D, Plates 11.3 and 11.6). However, the converter station will not block the views to the remaining landscapes that have changed little since the medieval period on Achanarras ridge and Spittal Hill (see Section 11.8.4), nor will it significantly impact views to this rarely visited monument (pers. comm. from the landowner) from the A9(T), because it is low-lying and difficult to spot from here, unless the viewer already knows where to look. Even though the proposed converter station will affect the locality, it will not impact the qualities listed by Historic Scotland that make the SAM of national importance (see Section 11.8.3).

It should be noted that since initial concerns were raised by Historic Scotland (see Section 11.5), the converter station has been sited further from the monument, from 300 to 595m away. Several mitigation strategies have been agreed to further soften the impact (see Section 11.10):

- the converter station will be painted an appropriate colour to help it blend it the shelterbelt backdrop to the north (LV2 and LV3);
- the shelterbelt will be maintained and reinforced during the lifetime of the station (LV7);
- surplus material from the excavations will be used to reshape the valley immediately around the proposed converter station to reduce the extent to which it is visible (LV4);

- clumps of planting on the south side of the converter station, which will include a mix of native trees such as oak, alder and Scots pine, will create a filter of the converter station and busbars in views from the monument (LV12); and
- the gap in the shelterbelt will be retained, as will the associated focal line of the trackway through this gap (LV8).

It should also be noted that through siting and orientation of the building, the roof of the station will be at the same level as the top of the shelterbelt trees, thus maintaining the current skyline (see GEN24 and GEN25).

While these mitigation measures will not eliminate the effect of the development on St Magnus church, burial ground and hospital, they will reduce it to a **moderate adverse** level (see Appendix 11-D, Plate 11.7).

Other sites within the 0-2km radius ZTV

West of the converter station is a group of prehistoric cairns, hut circles and a broch at the north end of Achanarras ridge and the moss north of it, all of moderate or high importance (Sites 308, 309, 310, 311, 314, 330, see Figures 11.1 and 11.2). For these sites, the potential pre-mitigation impacts on their setting of moderate importance identified in Section 11.9.3 (see tables 11.10 and 11.11) have residual post-mitigation adverse effects of **minor** significance. This is because the setting and views between the sites are not impacted by the station because it lies outside the group area. Moreover, only the roof of the station will be visible and this will become more screened off as the existing mixed woodland plantations at the north end of Achanarras ridge continue growing, mixed with effect of the appropriate colour paint used on the roof. This woodland already screens off the scheduled site of The Shean (Site 309) – see Appendix 11-D, Plate 11.8.

Table 11.14 Summary of residual effect on setting

Significance	Sites with affected settings
Very Major	None
Major	None
Moderate	65
Minor	63, 64, 67, 72, 294, 295, 307, 308, 309, 310, 311, 314, 321, 330
Negligible (or None)	42, 60, 62, 68, 69, 290, 296, 299, 301, 302, 303, 304, 305, 306, 307, 312, 315, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349

(see Appendix 11-C; Table 1 for detailed impact assessment).

11.11.2 Sites and settings within 2-5km ZTV

The mitigation commitments (see Section 11.10) include selection of an appropriate colour for the converter station and the maintenance of the shelterbelt north of the converter station. Along with the continued growth of existing shelterbelts and plantations in the vicinity of the station, the effect of the development on the setting of all sites (including those of high importance and those that could have been moderately impacted) will be reduced to **minor adverse** or less, as a small change in the background of the setting of these sites (see Appendix 11-C, Table 2).

11.11.3 Sites and settings within 5-10km ZTV

The mitigation commitments (see Section 11.10) include selection of an appropriate colour for the converter station and the maintenance of the shelterbelt north of the converter station. Along with the continued growth of existing shelterbelts and plantations in the vicinity of the station, the effect of the development on the setting of all sites in the 5-10km ZTV will be reduced to **minor adverse** or **none** (see Appendix 11-C, Table 3). The minor effect is simply at the level of the station perhaps being visible in small part of the background of a site's setting in very clear conditions.

11.12 Potential for cumulative effects

The potential for cumulative impacts appears to be solely in setting effects, since physically the development makes no impact on any sites and will be built on enclosed and improved land rather than uncultivated land that may have survived from prehistoric times.

Because the development is backdropped against an existing shelterbelt, it creates little additional effect itself in combination with changes already made in the landscape. However, some sites may experience a **moderate adverse** effect from angles where the station does not have the backdrop, as viewed from the west when the proposed Spittal wind farm would be in the same view (see Section 10.13). As long as the shelterbelts are maintained and the new plantations at the north end of Achanarras ridge continue to grow, the group of prehistoric sites here (including SAMs) will be screened from this cumulative impact, because they will be screened from the converter station.

The combination of the converter station with other existing modern more 'industrial' structures in the landscape, including the Causeymire wind farm, the electricity towers, as well as with the proposed Spittal wind farm may result in a **moderately adverse** cumulative effect on the setting of the St Magnus church, burial ground and hospital (Site 65). However, only 11 turbine blade tips and two nacelles of the proposed Spittal Wind Farm would be visible from the monument (RPS, 2009). Therefore existing screening such as shelterbelts and walls and committed mitigation measures including the proposed hedge planting along the A9(T), may provide sufficient screening to reduce the potential adverse cumulative impact on the setting to **negligible**. The proposed Halsary wind farm will not be visible from here because of the proximity of the shelterbelt southeast of Spittal Mains Farm.

11.13 Summary of key findings

There is only one recorded site (recorded by the walkover survey) within the proposed footprint of the converter station platform. Although the works will unavoidably result in the loss of this site, it is a modern clearance cairn and the significance of this loss is **negligible**. Therefore, no mitigation is proposed.

The Scheduled Ancient Monument of the medieval St. Magnus' church, burial ground and hospital is some 595m south of the proposed footprint of the converter station platform. It is of national importance and has statutory protection. It is however not regularly maintained and is rarely visited.

The proposed converter station and associated busbars will initially be in full view of St Magnus' church, burial ground and hospital. The assessment of the effects of construction on the setting of this site concludes that the current setting is not one of the factors that make it of national importance, since it is one of change,

including a working farmstead, post improvement squared fields, a disused quarry and spoil heaps to the west and shelterbelts to the north and south. Views that form part of the visual setting of the site are similarly affected and include shelterbelts to the north and south and Causeymire wind farm in the middle distance. Views to and from areas that have not changed from the medieval period will not be affected and the converter station will not break the current skyline or affect middle and long distance views. Mitigation in the form of landscaping works such as landforms and planting, using the height of an existing shelterbelt as backdrop and an appropriate paint colour for the buildings and fencing will help reduce the adverse effect upon the site to one of **moderate** significance.

Residual effects to the four other designated sites within the 2km visual envelope of the proposed development have been assessed as **minor adverse** after consideration of existing screening and committed mitigation measures.

The remaining sites within the 2km radius ZTV are not designated and are of local or regional significance only. Many of the sites are screened by trees that mitigate against much of the potential impact. On all of these, residual effects of the proposed development have been assessed as **minor adverse** or **negligible** after consideration of existing screening and committed mitigation measures.

Out with the 2km ZTV, only a few significant sites will be affected by the development. Some of these are clustered around the Sordale Hill area to the north of the proposed converter station. Further away only SAMs on and around Beinn Freiceadain to the far west of the converter site would be affected visually, but due to the distances involved the significance of the effect would be **minor adverse** or **negligible** and viewed as part of the wider landscape – the town of Halkirk would appear to be much more visually intrusive than the proposed development.

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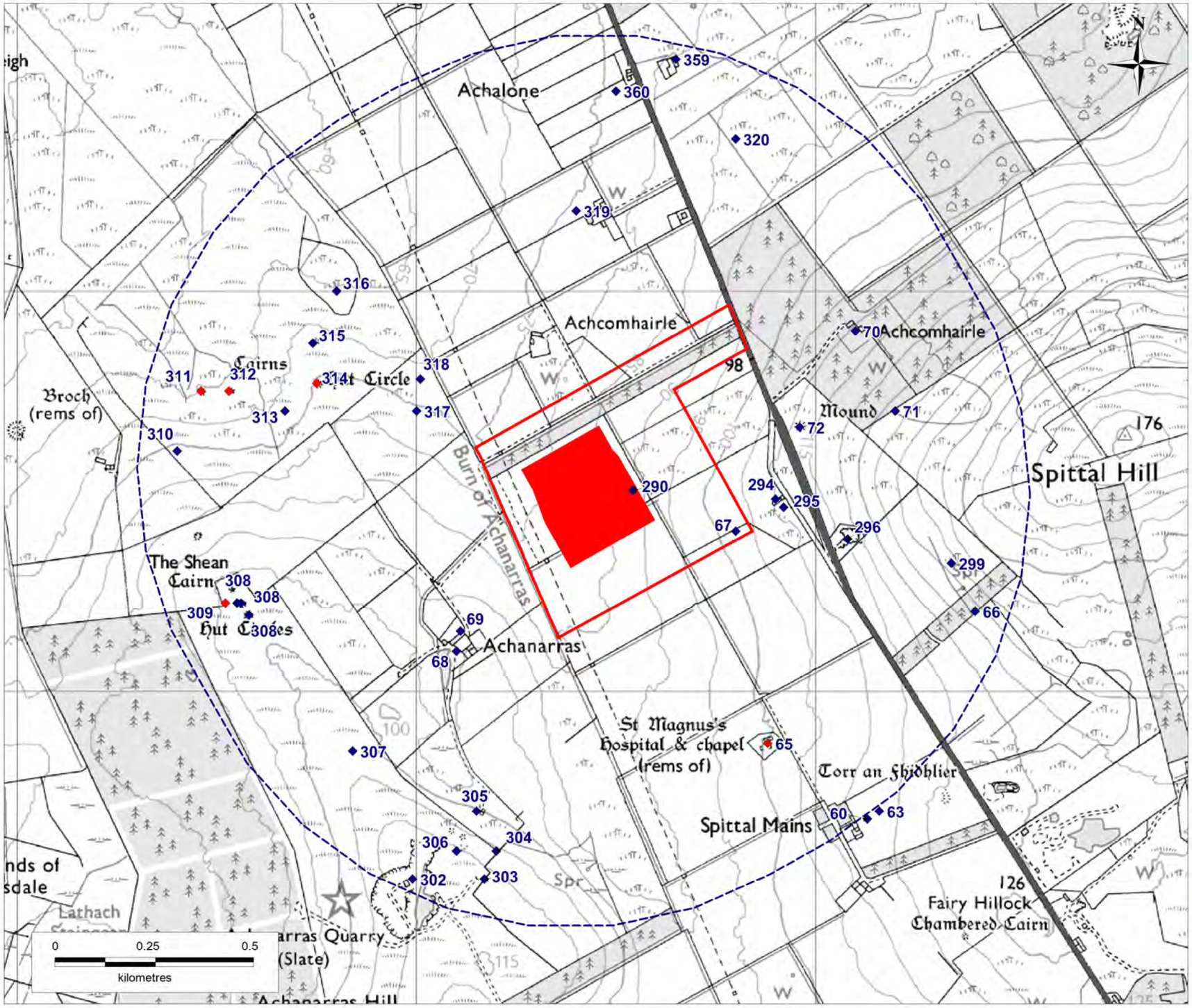
11 Archaeology and cultural heritage

Figure 11.1 Cultural heritage sites within 1km of the proposed converter station



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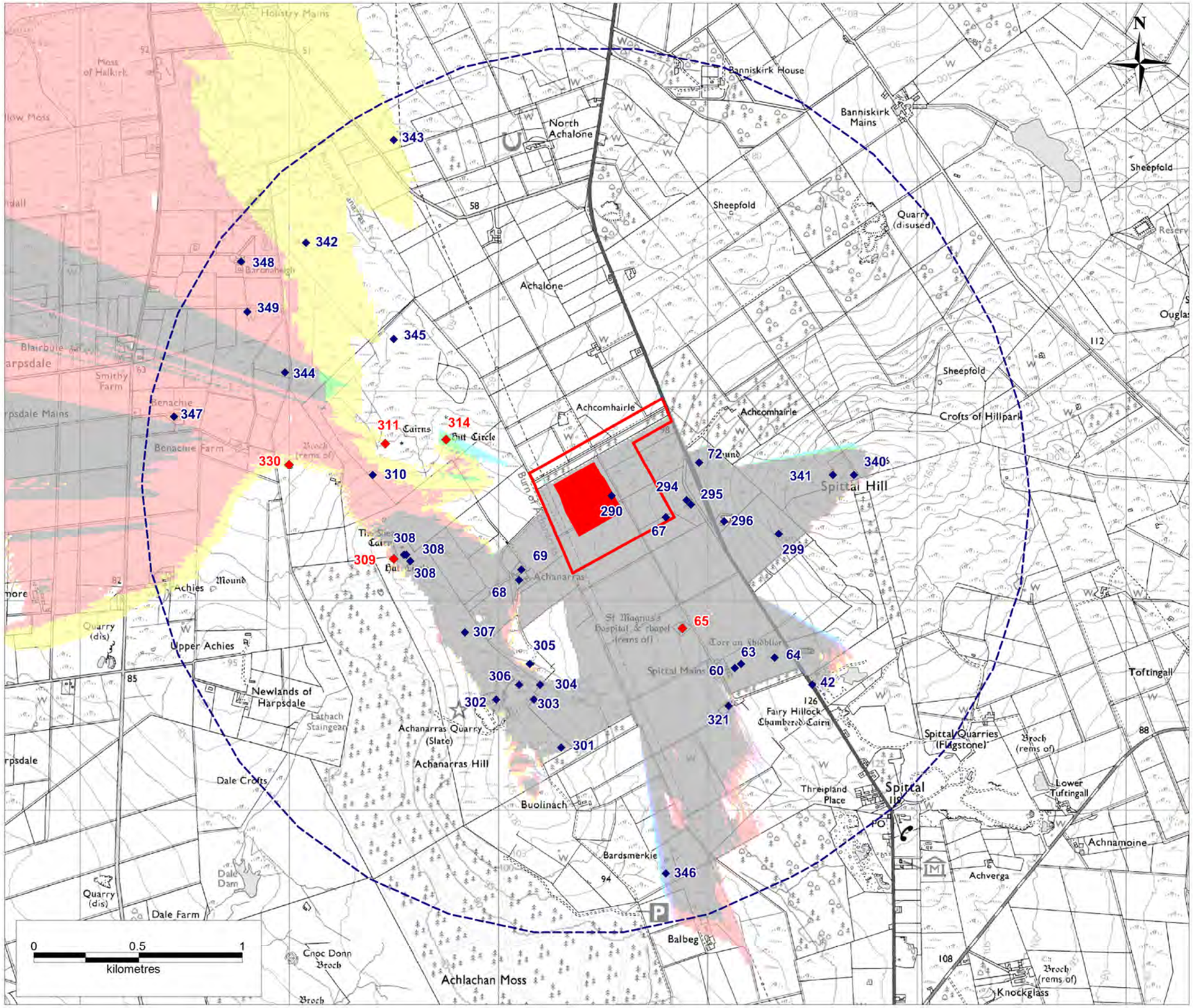
Date: May 2011 Project: P336

Drawn by: DS Checked by: MH

Figure 11.2 All cultural heritage sites within the 2km Zone of Theoretical Visibility (ZTV) for the proposed converter station site



LEGEND

- Converter station platform
- Converter station site boundary
- Archaeologically significant site
- Scheduled Ancient Monument
- 2km buffer

Visibility

(Source: ORCA)

NOTE

64 *Torr an Fhidlier*

65 *St Magnus church, burial ground and hospital*

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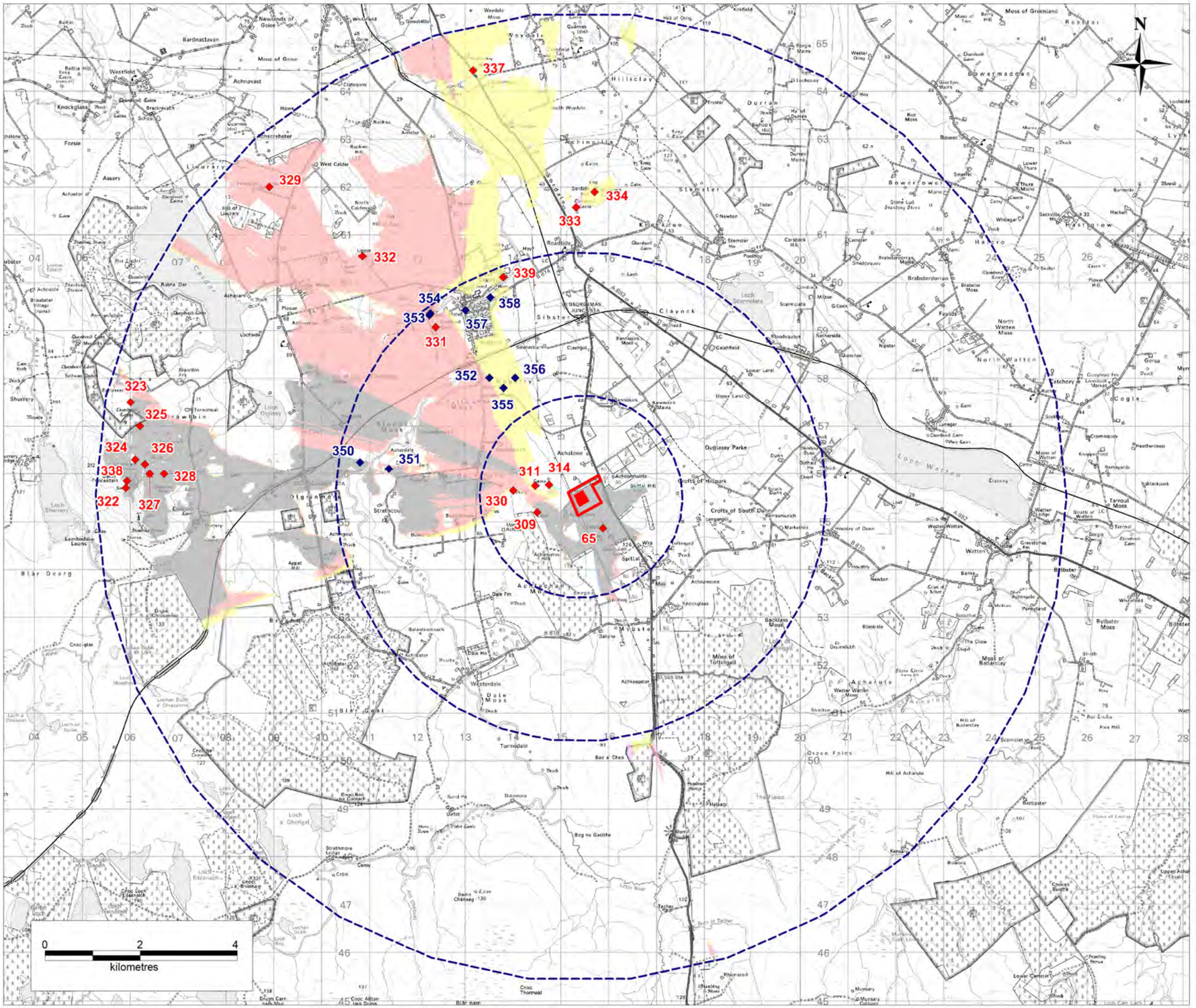
Power Distribution

Date May 2011 Project P336

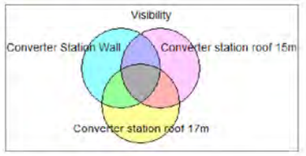
Drawn by DS Checked by MH

Figure 11.3 All cultural heritage sites of high importance in the ZTV, with sites of moderate importance also shown in the 2-5km ZTV



LEGEND

- Converter station platform
- Converter station site boundary
- Scheduled Ancient Monument
- Archaeologically significant site
- 2km, 5km and 10km buffers



(Source: ORCA)

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Date: May 2011 Project: P336

Drawn by: DS Checked by: MH

Plate 11.1: View of St Magnus SAM, site 65, looking south (Taken @ 1.8m high, F50)

Plate 11.2: Torr an Fhidhleir (Fiddler's Mound), site 64, looking southwest (Taken @ 1.8m high, F50)

Appendix 11-A
Gazetteer of Sites of Cultural Heritage Interest

Gazetteer of Sites of Cultural Heritage Interest

Table 1 Identified Sites within 1km of development (see Figure 11.1)

Site No.	NMRS No.	SMR No.	Site Name and Type	Description	NGR
60			Spittal Hill Well	A well is marked to the south of Spittal hill on the 1st edition of the 25-inch map (Caithness 1877, sheet xviii.9) but not on the OS 1:25000 map (2007) (Source: NMRS Canmore database)	ND 1613 5468
63	ND15SE.55	MHG37044	Spittal Mains Farmstead	Post-Medieval Farmstead (Source: NMRS Canmore database)	ND 1616 5470
65	ND15SE.1	MHG1350 MHG42410 MHG42411	St Magnus Hospital, Chapel and Graveyard **Scheduled Ancient Monument**	Little is known of the hospital of St Magnus beyond that it was mentioned in 1476 and was still in existence in 1633. The dedication is to the Norse St Magnus, who was executed in 1116. The chapel is a rectangular structure measuring 21 x 7m and is filled with rubble. An unenclosed graveyard lies to the S containing unmarked stones and three stones with inscriptions. The hospital appears as a sunken rectangular area measuring 31 x 4m. (Source: NMRS Canmore database)	ND 1588 5487
66	ND15NE.16	MHG19150	Spittal Hill Farm Building	An unroofed building is depicted on the 1st edition of the 6-inch map (Caithness 1877, sheet xviii), but it is not shown on the OS 1:10560 map (1971). (Source: NMRS Canmore database)	ND 1640 5520
67	ND15NE.17	MHG19151	Spittal Hill Farmstead	A longhouse farm comprising of a longhouse and outbuilding. A farmstead comprising one roofed long building and one unroofed long building is depicted on the 1st edition of the 6-inch map (Caithness 1877, sheet xviii). An unroofed building is shown on the current edition of the OS 1:10560 map (1971). (Source: NMRS Canmore database)	ND 1580 5540
68	ND15NE.11	MHG1429	Achanarras Chapel (possible)	The Statistical Account (OSA, 1797) refers to ecclesiastical remains 'at a place on a rising ground to the west of the church (ND15SE 1), called Auchinarras, that is, 'the Field of the Altar'. The exact location of this site is unknown. (It would seem more probable that the entry in the Stat.Acct. is a misinterpretation of the broch remains noted on ND15NE 2.) (Source: NMRS Canmore database)	ND 1510 5510
69	ND15NE.2	MHG673	Achanarras Broch (possible)	Abutting the NW side of a farm steading is a level area some 19.0m across delimited by a well-defined scarp 0.4m high on the NW. Within this feature is a semi-circular stony bank slightly set in the ground and measuring 9.0m by 4.5m and 0.3m high which could be the remains of a broch site. (Source: NMRS Canmore database)	ND 1511 5515
70	ND15NE.19	MHG19153	Achcomhairle Farmstead	A longhouse farm comprising of a longhouse and two enclosures. A farmstead comprising one roofed T-shaped building, one partially roofed long building, two unroofed buildings, one of which is a long building, and three enclosures is depicted on the 1st edition of the 6-inch map (Caithness 1877, sheet xviii). One roofed and one unroofed building, what may be another unroofed building and two enclosures are shown on the OS 1:10560 map (1971). (Source: NMRS Canmore database)	ND 1610 5590
71	ND15NE.57	MHG18431	Spittal Hill Farmstead	A longhouse farmstead comprising two longhouses and an enclosure (Source: NMRS Canmore database)	ND 1620 5570
72	ND15NE.5	MHG672	Achcomhairle Broch (probable)	A grass-covered circular wall measuring 24m in diameter and 0.9m high Possible broch site (Source: NMRS Canmore database)	ND 1596 5566

Site No.	NMRS No.	SMR No.	Site Name and Type	Description	NGR
290			Spittal of Mains Fields Clearance Cairn	Long heap of stones (Source: walkover survey)	ND 1554 5550
294			Spittal Hill Farm Building	Barn associated with farmstead Site # 67 Still in use /roofed on 1st OS (Source: walkover survey / DBA)	ND 1590 5548
295			Spittal Hill Mound	Mound circa 5m diameter by 1m high of unknown date (Source: walkover survey)	ND 1592 5546
296			Spittal Hill Quarry	Disused quarry Source: walkover survey)	ND 1608 5538
299			Spittal Hill Clearance Cairn	Clearance rubble (Source: walkover survey)	ND 1634 5532
302		MHG33106	Achanarras Quarry	Disused flagstone quarry (now an SSSI and signposted SNH visitor attraction) (Source: Highland Council HER)	ND 1499 5453
303	ND15SE.31 .-	MHG18435	Achanarras Quarry Farmstead	Longhouse farm, comprising; A) Longhouse. Dimensions: 23 x 5m. Rectangular structure defined by walls 0.5m high, with three compartments. Orientation NE-SW. B) Longhouse. Dimensions: 12 x 4m. Rectangular structure defined by walls 0.5m high, divided into three units parallel to A. Orientation NE-SW. C) Enclosure. Dimensions: 33 x 16m. Associated with A, using its long wall as part of the enclosure. D) Enclosure. Dimensions: 100 x 35m. To the SE of B and partly obscured by modern ploughing. Two roofed buildings are depicted on the first edition of the OS 6-inch map (Caithness 1876, sheet xvii). One unroofed building and one unroofed structure are shown on the current edition of the OS 1:10,000 map (1976). (Source: NMRS Canmore database)	ND 1517 5453
304	ND15SE.34 .-	MHG19904	Black Pool Farmstead	Longhouse farm, comprising; A) Longhouse. Dimensions: 28 x 7m. Rectangular structure with no internal divisions. Orientation NE-SW. B) Longhouse. Dimensions: 22 x 5m. Rectangular structure divided into two compartments, lying 4m SE of and parallel to A. Orientation NE-SW. Two roofed buildings are depicted on the first edition of the OS 6-inch map (Caithness 1877, sheet xviii), but are not shown on the current edition of the OS 1:10,000 map (1976). (Source: NMRS Canmore database)	ND 1520 5460
305	ND15SE.30 .-	MHG18434	Black Pool Farmstead and Mine Shaft	Longhouse of dimensions: 11 x 7m Rectangular structure with one internal division Orientation NE-SW An unroofed structure, marked as a disused mine shaft, is depicted on the current edition of the OS 1:10,000 map (1976). (Source: NMRS Canmore database)	ND 1515 5470
306	ND15SE.60 .-	MHG51712	Achanarras Lead Mine	A Lead mine was still active at Achanarras in 1918 (Source: NMRS Canmore database)	ND 1510 5460

Site No.	NMRS No.	SMR No.	Site Name and Type	Description	NGR
307	ND15SW.60.-	MHG18432	Achanarras Hill Farmstead	Longhouse of dimensions: 14 x 6m Rectangular structure divided into three units and associated with an irregular enclosure 100 x 98 x 62m Orientation NE-SW A roofed building within a triangular enclosure is depicted on the first edition of the OS 6-inch map (Caithness 1876, sheet xvii). The building is unroofed on the OS 1:10,560 map (1963). (Source: NMRS Canmore database)	ND 1484 5485
308	ND15NW.20.-	MHG33101 MHG33102 MHG1333	Achanarras / Benachie Farm Hut Circles (probably Bronze Age)	In the area centred at ND 1456 5520, on a flat hill-top, there are the grass-covered footings of three circular enclosures, of which two are joined. The latter (A and B) measure 12.5m and 13.5m in diameter respectively, and 0.4m in height, with an enclosing bank 3.0m wide. The entrance to 'A' is in the W, and that of 'B' to the SE. 'C' measures 14.0m in diameter and 0.4m in height, with an enclosing bank 3.0m wide and an entrance in the W. (A: ND 1454 5522; B: ND 1456 5522; C: ND 1457 5519) A: Dimensions: 17.5 x 16m. Subcircular structure with internal dimensions of 19 x 8m. It is surrounded by a palisade 19m in diameter. Entrance is on the SE. B: Diameter: 15m. This circular structure underlies A and has an internal diameter of 10m. C: Dimensions: 16 x 18m. Subcircular structure with internal dimensions of 9 x 11m. It has a ditch on the W side and an entrance to the W. (Source: NMRS Canmore database)	ND 1454 5522 ND 1456 5522 ND1457 5519
309	ND15NW.14.-	MHG1327	Achanarras, The Shean Cairn (Neolithic) **Scheduled Ancient Monument**	The Shean (perhaps correctly 'Sithean') is a cairn some 30ft in diameter and 3ft in height. A slight depression on the top suggests that it may have been excavated. Cairn, 'The Shean', Achanarras. Dimensions: 15.5 x 12.5m. Subcircular, grass-covered mound with a central depression 2 x 2.25m. (Source: NMRS Canmore database)	ND 1454 5525
310	ND15NW 79	MHG19896	Achlure Hut Circles (possible)	Structural traces A series of ill-defined circular structure represented by very low turf banks or by circular depressions. They probably represent hut-circles, ranging in diameter from 6-13m. (Source: NMRS Canmore database)	ND 1440 5560
311	ND15NW.17	MHG13619	Achanarras 'B' Cairn **Scheduled Ancient Monument**	A probable cairn, at ND 1446 5575, in a similar topographic position to and 75m W of 'A', is as described by the RCAHMS. It survives to a height of 1.0m. (Source: NMRS Canmore database)	ND 1446 5575
312	ND15NW.17	MHG1330	Achanarras 'A' Cairns **Scheduled Ancient Monument**	This cairn, surrounded by five prostrate stones, as described by the RCAHMS, is situated at ND 1453 5575 at the foot of Achanarras Hill in marshy open moorland. It now measures only 10.0m in diameter and 0.5m in height. (Source: NMRS Canmore database)	ND 1453 5575
313		MHG13617	Benachie Farm Farm Building and Enclosure	Grass covered footings of a small rectangular building 0.3m high with associated enclosure. (Source: Highland Council HER)	ND 1467 5570

Site No.	NMRS No.	SMR No.	Site Name and Type	Description	NGR
314	ND15NW23	MHG1349	Achanarras Hut Circle **Scheduled Ancient Monument**	Hut circle Diameter 13m Circular grass and heather covered structure at centre of which lies a low mound 0.3m high, 3m diameter. (Source: NMRS Canmore database)	ND 1475 5577
315	ND15NW22	MHG1335 MHG39765	Achanarras Hill Cairn and Shooting Stand	Cairn Diameter: 10m Circular grass and heather covered mound 1m high. A small rectangle of stones in its centre is probably the remains of a shooting butt. (Source: NMRS Canmore database)	ND 1474 5587
316	ND15NW45	MHG18890 MHG44533	Benachie Farm Enclosure / Field System	Enclosure/field system (ND 1480 5600) Bank 1m wide and 0.3m high, enclosing an area within which there is a series of striations 6m apart running NE-SW, probably drainage channels. (Source: NMRS Canmore database)	ND 1480 5600
317=318	ND15NE.14 -	MHG18883	Achalone Farm Building	An unroofed building is depicted on the 1st edition of the OS 6-inch map (Caithness 1876, sheet xvii), but it is not shown on the current edition of the OS 1:10560 map (1971). Further research has shown that the 2 sites are the same, with NMRS location (site 317), being slightly off.	ND 1501 5578
319	ND15NE55	MHG19899	Achalone Mill Farm	Mill farm (ND 1545 5620) Mill unit still roofed measures 23 x 5m Attached at right angles to it is a range of barns measuring 31 x 5m Five roofed buildings are depicted on the first edition of the OS 6-inch map (Caithness 1877, sheet xviii). Two roofed buildings are shown on the current edition of the OS 1:10,560 map (1971).	ND 1540 5620
320	ND15NE54	MHG19898	Achalone Farmstead	A: Longhouse. Dimensions: 16 x 4.5m. Rectangular tripartite structure. The SE and central units contain fireplaces. A small annexe 3 x 3m juts from the S long wall. Orientation NW-SE. B: Longhouse. Dimensions: 10 x 4.5m. Rectangular bipartite structure. The entrance has a funnel-shaped arrangement of upright flagstones leading from the entrance 0.9m wide and tapering from there to 0.5m wide. Orientation NE-SW.	ND 1580 5638
359	ND15NE.21	MHG19155 MHG42131	Achalone Longhouse and Corn-Drying Kiln	Longhouse farm (ND 1565 5658) comprising: A: Longhouse. Dimensions: 26 x 5m. Rectangular structure divided into four units with a circular kiln at the S end. It has two annexes attached to the W long wall, measuring 3 x 2m and 3.2 x 2m. Orientation NW-SE. B: Longhouse. Dimensions: 7 x 4m. Rectangular structure defined by grass-covered walls 0.4m high. There is no internal division, but the long wall projects for 4.5m from the SE corner. Orientation NW-SE. A farmstead comprising two unroofed buildings, one of which is a long building with what may be two outshots, and two enclosures is depicted on the 1st edition of the 6-inch map (Caithness 1877, sheet xviii). One unroofed building is shown on the current edition of the OS 1:10560 map (1971). (Source: NMRS Canmore database)	ND 1565 5658
360	ND15NE.20	MHG19170	Achlone Farmstead	A farmstead comprising two roofed buildings, one of which is a long building, one unroofed building and an enclosure is depicted on the 1st edition of the 6-inch map (Caithness 1877, sheet xviii). Four roofed buildings are shown on the current edition of the OS 1:10560 map (1971). Source: NMRS Canmore database.	ND 1550 5650

Table 2 Identified Sites within the 2km ZTV (see Figure 11.2)

Site No.	NMRS No.	SMR No.	Site Name and Type	Description	NGR
42	ND15SE.29	MHG19148	Spittal Mains Farmstead (possible)	What may be a farmstead comprising an unroofed, long building and an enclosure is depicted on the 1st edition of the 6-inch map (Caithness 1877, sheet xviii), but it is not shown on the OS 1976 1:10000 map. (Source: NMRS Canmore database)	ND 1650 5460
60			Spittal Hill Well	A well is marked to the south of Spittal hill on the 1st edition of the 25-inch map (Caithness 1877, sheet xviii.9) but not on the OS 1:25000 map (2007).	ND 1613 5468
63	ND15SE.55	MHG37044	Spittal Mains Farmstead	Post-Medieval Farmstead (Source: NMRS Canmore database)	ND 1616 5470
64	ND15SE.4	MHG189	Torr an Fhidhlier Prehistoric Mound	A sub-oval turf-covered mound, the centre and SW side of which have been removed, Soil erosion has revealed a mass of small non-coursed stone slabs, resembling more cairn than broch material, within the inner face of the NE side, together with three thin slabs, possibly the remains of a small cist-like structure. (Source: NMRS Canmore database)	ND 1632 5473
65	ND15SE.1	MHG1350 MHG42410 MHG42411	St Magnus Hospital, Chapel and Graveyard **Scheduled Ancient Monument**	Little is known of the hospital of St Magnus beyond that it was mentioned in 1476 and was still in existence in 1633. The dedication is to the Norse St Magnus, who was executed in 1116. The chapel is a rectangular structure measuring 21 x 7m and is filled with rubble. An unenclosed graveyard lies to the S containing unmarked stones and three stones with inscriptions. The hospital appears as a sunken rectangular area measuring 31 x 4m. (Source: NMRS Canmore database)	ND 1588 5487
67	ND15NE.17	MHG19151	Spittal Hill Farmstead	A longhouse farm comprising of a longhouse and outbuilding. A farmstead comprising one roofed long building and one unroofed long building is depicted on the 1st edition of the 6-inch map (Caithness 1877, sheet xviii). An unroofed building is shown on the current edition of the OS 1:10560 map (1971). (Source: NMRS Canmore database)	ND 1580 5540
68	ND15NE.11	MHG1429	Achanarras Chapel (possible)	The Statistical Account (OSA, 1797) refers to ecclesiastical remains 'at a place on a rising ground to the west of the church (ND15SE 1), called Auchinarras, that is, 'the Field of the Altar'. The exact location of this site is unknown. (It would seem more probable that the entry in the Stat.Acct. is a misinterpretation of the broch remains noted on ND15NE 2.) (Source: NMRS Canmore database)	ND 1510 5510
69	ND15NE.2	MHG673	Achanarras Broch (possible)	Abutting the NW side of a farm steading is a level area some 19.0m across delimited by a well-defined scarp 0.4m high on the NW. Within this feature is a semi-circular stony bank slightly set in the ground and measuring 9.0m by 4.5m and 0.3m high which could be the remains of a broch site. (Source: NMRS Canmore database)	ND 1511 5515
72	ND15NE.5	MHG672	Achcomhairle Broch (probable)	A grass-covered circular wall measuring 24m in diameter and 0.9m high. Possible broch site. (Source: NMRS Canmore database)	ND 1596 5566
290			Spittal of Mains Fields Clearance Cairn	Long heap of stones (Source: walkover survey)	ND 1554 5550

Site No.	NMRS No.	SMR No.	Site Name and Type	Description	NGR
294			Spittal Hill Farm Building	Barn associated with farmstead Site # 67. Still in use /roofed on 1st OS. (Source: walkover survey / DBA)	ND 1590 5548
295			Spittal Hill Mound	Mound circa 5m diameter by 1m high of unknown date. (Source: walkover survey)	ND 1592 5546
296			Spittal Hill Quarry	Disused quarry (Source: walkover survey)	ND 1608 5538
299			Spittal Hill Clearance Cairn	Clearance rubble (Source: walkover survey)	ND 1634 5532
301	ND15SE.32 .-	MHG18437	Buolinach Farmstead	Longhouse farm (ND 1521 5431), comprising; A: Longhouse. Dimensions: 22 x 5m. Tripartite structure. There are two upright slabs, probably byre slots in the E unit. Orientation E-W. B: Dimensions: 12 x 5m. Bipartite rectangular structure 2m N of and parallel to A. Orientation E-W. C: Enclosure. Dimensions: 19 x 10m. The enclosure lies N of B. D: Well. Diameter: 10m. The well lies 40m W of B. Two roofed buildings are depicted on the first edition of the OS 6-inch map (Caithness 1877, sheet xviii). One unroofed building is shown on the current edition of the OS 1:10,000 map (1976).). (Source: NMRS Canmore database)	ND 1530 5430
302		MHG33106	Achanarras Quarry	Disused flagstone quarry (now an SSSI and signposted SNH visitor attraction (Source: Highland Council HER)	ND 1499 5453
303	ND15SE.31 .-	MHG18435	Achanarras Quarry Farmstead	Longhouse farm, comprising; A: Longhouse. Dimensions: 23 x 5m. Rectangular structure defined by walls 0.5m high, with three compartments. Orientation NE-SW. B: Longhouse. Dimensions: 12 x 4m. Rectangular structure defined by walls 0.5m high, divided into three units parallel to A. Orientation NE-SW. C: Enclosure. Dimensions: 33 x 16m. Associated with A, using its long wall as part of the enclosure. D: Enclosure. Dimensions: 100 x 35m. To the SE of B and partly obscured by modern ploughing. Two roofed buildings are depicted on the first edition of the OS 6-inch map (Caithness 1876, sheet xvii). One unroofed building and one unroofed structure are shown on the current edition of the OS 1:10,000 map (1976). (Source: NMRS Canmore database)	ND 1517 5453
304	ND15SE.34 .-	MHG19904	Black Pool Farmstead	Longhouse farm, comprising; A: Longhouse. Dimensions: 28 x 7m. Rectangular structure with no internal divisions. Orientation NE-SW. B: Longhouse. Dimensions: 22 x 5m. Rectangular structure divided into two compartments, lying 4m SE of and parallel to A. Orientation NE-SW. Two roofed buildings are depicted on the first edition of the OS 6-inch map (Caithness 1877, sheet xviii), but are not shown on the current edition of the OS 1:10,000 map (1976). (Source: NMRS Canmore database)	ND 1520 5460
305	ND15SE.30 .-	MHG18434	Black Pool Farmstead and Mine Shaft	Longhouse. Dimensions: 11 x 7m. Rectangular structure with one internal division. Orientation NE-SW. An unroofed structure, marked as a disused mine shaft, is depicted on the current edition of the OS 1:10,000 map (1976). (Source: NMRS Canmore database)	ND 1515 5470

Site No.	NMRS No.	SMR No.	Site Name and Type	Description	NGR
306	ND15SE.60 .-	MHG51712	Achanarras Lead Mine	A Lead mine was still active at Achanarras in 1918 (Source: NMRS Canmore database)	ND 1510 5460
307	ND15SW.6 0.-	MHG18432	Achanarras Hill Farmstead	Longhouse. Dimensions: 14 x 6m. Rectangular structure divided into three units and associated with an irregular enclosure 100 x 98 x 62m. Orientation NE-SW. A roofed building within a triangular enclosure is depicted on the first edition of the OS 6-inch map (Caithness 1876, sheet xvii). The building is unroofed on the OS 1:10,560 map (1963). (Source: NMRS Canmore database)	ND 1484 5485
308	ND15NW.2 0.-	MHG1333 MHG33101 MHG33102	Achanarras / Benachie Farm Hut Circles (probably Bronze Age)	In the area centred at ND 1456 5520, on a flat hill-top, there are the grass-covered footings of three circular enclosures, of which two are joined. The latter (A and B) measure 12.5m and 13.5m in diameter respectively, and 0.4m in height, with an enclosing bank 3.0m wide. The entrance to 'A' is in the W, and that of 'B' to the SE. 'C' measures 14.0m in diameter and 0.4m in height, with an enclosing bank 3.0m wide and an entrance in the W. (A: ND 1454 5522; B: ND 1456 5522; C: ND 1457 5519) A: Dimensions: 17.5 x 16m. Subcircular structure with internal dimensions of 19 x 8m. It is surrounded by a palisade 19m in diameter. Entrance is on the SE. B: Diameter: 15m. This circular structure underlies A and has an internal diameter of 10m. C: Dimensions: 16 x 18m. Subcircular structure with internal dimensions of 9 x 11m. It has a ditch on the W side and an entrance to the W. (Source: NMRS Canmore database)	ND 1454 5522 ND 1456 5522 ND 1457 5519
309	ND15NW.1 4.-	MHG1327	Achanarras, The Shean Cairn (Neolithic) **Scheduled Ancient Monument**	The Shean (? correctly 'Sithean') is a cairn some 30ft in diameter and 3ft in height. A slight depression on the top suggests that it may have been excavated. Cairn, 'The Shean', Achanarras. Dimensions: 15.5 x 12.5m. Subcircular, grass-covered mound with a central depression 2 x 2.25m. (Source: NMRS Canmore database)	ND 1454 5525
310	ND15NW 79	MHG19896	Achlure Hut Circles (possible)	Structural traces A series of ill-defined circular structure represented by very low turf banks or by circular depressions. They probably represent hut-circles, ranging in diameter from 6-13m.	ND 1440 5560
311	ND15NW.1 7	MHG13619	Achanarras 'B' Cairn **Scheduled Ancient Monument**	A probable cairn, at ND 1446 5575, in a similar topographic position to and 75m W of 'A', is as described by the RCAHMS. It survives to a height of 1.0m. (Source: NMRS Canmore database)	ND 1446 5575
314	ND15NW 23	MHG1349	Achanarras Hut Circle **Scheduled Ancient Monument**	Hut circle. Diameter 13m. Circular grass and heather covered structure at centre of which lies a low mound 0.3m high, 3m diameter.	ND 1475 5577
321	ND15SE23	MHG19144	Spittal Mains Cottages Farmstead	A farmstead comprising three unroofed buildings, two of which are long buildings, is depicted on the 1st edition of the 6-inch map (Caithness 1877, sheet xviii), but it is not shown on the current edition of the OS 1:10000 map (1976).	ND 1610 5450

Site No.	NMRS No.	SMR No.	Site Name and Type	Description	NGR
330	ND15NW 13	MHG1326	Achies East Broch **Scheduled Ancient Monument**	The remains of a broch are evidenced by a large grassy mound measuring c150ft in diameter and 12-14ft high. Above a steep scarp, which is some 6-8ft above field level, a terrace 12-20ft broad encircles mound leaving an elevated area in middle of about 78ft diameter.	ND 1400 5565
340	ND15NE.7	MHG39789 MHG1426	Spittal Hill Market Place	Spittal Hill (Spittal was a parish until combined with Halkirk in the 16th century), the highest point in Halkirk parish, was until about 1827 a traditional meeting place. Here was held an annual market named 'the Jamesmas' according to the New Statistical Account (NSA, 1845) and 'Georgemas Fair' according to the ONB (1872). (Source: NMRS Canmore database)	ND 1670 5560
341	ND15NE.18	MHG19152	Spittal Hill Farmstead	Longhouse. Dimensions: 17.5 x 4m. Rectangular structure defined by grassy walls 0.7m high, comprising four compartments. Orientation WNW-ESE. It is associated with an enclosure 45 x 25m. A farmstead comprising one unroofed long building and an enclosure is depicted on the 1st edition of the 6-inch map (Caithness 1877, sheet xviii). An enclosure is shown on the current edition of the OS 1:10560 map (1971). (Source: NMRS Canmore database)	ND 1660 5560
342	ND15NW.4 1	MHG42130 MHG18881	Bardnahoich Farmstead	Longhouse dimensions: 34 x 5m. Rectangular structure built of drystone masonry, 0.3m high. It was divided into four units with a circular kiln at the NW end. There were also traces of a possible small circular kiln in a central unit. Orientation NW-SE. A farmstead comprising an unroofed, long building within a field is depicted on the 1st edition of the OS 6-inch map (Caithness 1876, sheet xvii). An unroofed, long building of two compartments, which has an unroofed, circular structure attached to it, and a field are shown on the current edition of the OS 1:10560 map (1970). (Source: NMRS Canmore database)	ND 1408 5671
343	ND15NW.4 4	MHG18889	Houstry Farmstead	An unroofed long building with an adjoining enclosed garden plot is depicted on the 1st edition of the OS 6-inch map (Caithness 1876, sheet xvii), but it is not shown on the current edition of the OS 1:10560 map (1970). (Source: NMRS Canmore database)	ND 1450 5720
344	ND15NW.7 7	MHG40802 MHG19901	Marl Loch Farmstead / Enclosure	Longhouse. Dimensions: 10 x 5m. Rectangular structure defined by clay and flagstone walls and a graded slate roof. The E end has collapsed. The W end contains a fireplace and press. Orientation E-W. One roofed building and an enclosure are depicted on the first edition of the OS 6-inch map (Caithness 1876, sheet xvii). A roofed building is shown on the current edition of the OS 1:10,560 map (1970). (Source: NMRS Canmore database)	ND 1398 5609
345	ND15NW.7 8	MHG19902	Achanarras Hill Bank (Earthworks)	Field system (ND 1450 5625 - 1485 5550). Field boundary system composed of large earthen banks 3m wide 0.5m high. (Source: NMRS Canmore database)	ND 1450 5625 ND 1485 5550
346	ND15SE.25	MHG19146	Bardsmerkie Farmstead	A farmstead comprising one roofed long building, one unroofed structure and an enclosure is depicted on the 1st edition of the 6-inch map (Caithness 1877, sheet xviii). An unroofed building of two compartments is shown on the current edition of the OS 1:10000 map (1976). (Source: NMRS Canmore database)	ND 1580 5370

Site No.	NMRS No.	SMR No.	Site Name and Type	Description	NGR
347	ND15NW.102	MHG37534	Benachie Farmstead	Farmstead, still occupied. Record created automatically by NMRS Register Utility. (Source: NMRS Canmore database)	ND 1345 5588
348		MHG33099	Bardnahoich Building	A roofed building is depicted on the OS 1st Edition Map (Source: Highland Council HER)	ND 1377 5662
349		MHG33100	Bardnahoich Well	A 'Well' is depicted on the OS 1st Edition Map. The well is associated with the farm steading nearby at ND 13772 56629. (Source: Highland Council HER)	ND 1380 5638

Table 3 Identified Sites of Moderate & High Importance within the 2-5km ZTV (see Figure 11.3)

Site No.	NMRS No.	SMR No.	Site Name and Type	Description	NGR
331	ND15NW 5	MHG1345 MHG39773	Tulloch of Milton Chambered Cairn **Scheduled Ancient Monument** HS INDEX 499	Tulloch of Milton, a formerly oval Orkney-Cromarty type chambered cairn, is so severely robbed that it now appears as a number of grass-grown hummocks; it measured about 108 by 80ft. The tops of a number of upright slabs are exposed. Seven in the SW have no great difference in their height and may represent the divisions of two chambers but it is uncertain whether they all belong to the same structure. Two other slabs forming the middle group may also represent a chamber and passage. Four other stones are shown but their purpose is not conjectured. However, the Ordnance Survey Name Book (ONB, 1872) records, by a drawing based on descriptions, a six-sided chamber in which were found burnt human bones and red ashes. Only the nine stones in the S half can be identified and these suggest two chambers. (Source NMRS)	ND 1238 5907
339	ND16SW.5	MHG1768	Braal Castle, Halkirk Castle **Scheduled Ancient Monument** HS INDEX 619	The ruins of Braal Castle are situated at the rear of the present mansion, on the N bank of the Thurso River. The tower is a rectangular, rubble-built structure measuring externally some 35 by 37ft and existing to the level of the top of the second storey. The walls are from 8 to 10ft in thickness. The entrance door is on the first floor level through the SW angle and just within it the staircase rises to the right in the thickness of the wall. The castle probably dates from the 14th century. In 1375 or 1376, Robert II granted to his son David Stewart, the Castle of Brathwell and all the lands thereof. In 1547, the castle was in the possession of George, Earl of Caithness. The structure currently conforms to OS description, but not entered as in a dangerous state of dilapidation. (Source: NMRS Canmore database)	ND 1379 6011
350	ND15NW.67	MHG43118 MHG19880	Mill Pool Hut Circles	Structural traces: a very bright green patch of grass within which were traces of rings, some with a central raised area, others with a central depression. Nine circles were evident, with diameters of 4-6m. Hut circle (ND 1090 5623). Dimensions: 11 x 9m. Subcircular structure with an internal diameter of 4.5m. An entrance is located on the E axis. Hut-circle (ND 1095 5620). Dimensions: 12.5 x 11m. Subcircular structure represented by grass-covered walls 0.2m high. The interior is 0.4m deep and has a diameter of 5m. An entrance is visible on the E. Mound (ND 1093 5612). Dimensions: 13 x 8m. Irregularly shaped, subcircular earthen mound. (Source: Highland Council HER)	ND 1080 5624
351	ND15NW.12	MHG1325	Achardale Battle Site	Site of Conflict between the Clans Gunn & Keith and Mackay AD 1426. A battle between clans Gunn, Keith and Mackay, latter supporting the Keiths, was fought here in 1426. Nothing is known about the engagement, but it is believed that Clan Gunn had the worst of it, from the fact that the chief of the Mackays was taken before the king at Inverness, for outrages committed on that clan. Apart from local confirmation of the clan battle site there is no further information. (Source: Highland Council HER)	ND 1140 5610

Site No.	NMRS No.	SMR No.	Site Name and Type	Description	NGR
352	ND15NW.8	MHG13620 MHG1348	Moss of Halkirk Cairn	Mound, Houstry. Dimensions: 47 x 24m. Oval mound 2m high with evidence of stone debris at the base within a drainage ditch that runs along its E side. Orientation SW-NE. Although denoted by a symbol on the published plan, the ONB (1872) describes it as the site of 'Tulloch' or remains of a Pict's House and lists the name to be published on the plan as "Pict's House (Remains of)". There is no trace of any feature at site shown above, but, in an otherwise almost flat arable field, there is an obviously artificial mound at ND 1350 5801, measuring 28m E-W by 20m transversely and about 2m high. It is impossible to ascertain the original purpose of this mound without excavation. The extant mound is as described by previous field investigator; it is judged to be probably a cairn, but no diagnostic features are exposed. Some large stones protrude through the turf and lie beside fence adjacent to location of the "Pict's House". (Source: Highland Council HER)	ND 1350 5801
353	ND15NW.4	MHG39772 MHG1344	Gerston Cist Burials	Three stone long cists, containing human remains, lying parallel to each other, were found in 1852. (Source: Highland Council HER)	ND 1225 5932
354	ND15NW.3	MHG1342	Gerston Burial Ground (possible)	Human Remains found in 1852, when the river, during a flood, washed away a portion of the bank and disclosed several human bones, skulls, etc. (Source: NMRS Canmore database)	ND 1227 5936
355	ND15NW.30	MHG1343	Houstry Farm Cist	Mr. Robert Murray noted a cist burial exposed 'at a field entrance about 50' W of the edge of the mound (ND15NW 8) nearest to the Halkirk Road'. Two large stones (possibly capstones) and stones on edge are exposed. Information contained in letter Trevor Cowie, Royal Museum of Scotland (RMS) to RCAHMS, 19 June 1990. (Source: NMRS Canmore database)	ND 1380 5780
356	ND15NW.9	MHG662	Houstry Mains Prehistoric Mound	A low, definite mound, situated in a nearly level pasture field, measures c22m diameter and 0.8m in height. It is almost completely ploughed-out, defying positive identification. From its situation it is more likely to be a broch rather than a cairn. (Source: Highland HER)	ND 1404 5801
357	ND15NW.80	MHG15165	Church of Scotland, Bridge Street, Halkirk Church **B Listed Building**	Church built by Alexander Ross in 1884. (Source: Highland Council HER)	ND 1300 5942

Site No.	NMRS No.	SMR No.	Site Name and Type	Description	NGR
358	ND15NW.6	MHG1346	Halkirk Village Old Parish Church Church **B Listed Building**	Abbey Church, Halkirk. Georgian T plan church built in 1753, repaired in 1833.The present parish church is built on site of an old chapel, but no information can be had in this neighbourhood in connection with it. Part of the ruins were standing when the church was built. (Source: Highland Council HER)	ND 1352 5969

Table 4 Identified Sites of High Importance within the 5-10km ZTV

Site No.	NMRS No.	SMR No.	Site Name and Type	Description	NGR
322	ND05NE 18	MHG783	Buaile Oscar Hillfort **Scheduled Ancient Monument** HS INDEX 530	'Buaile Oscar' (Oscar's Fold) is a probable Early Iron Age fort, consisting of a single wall generally 12ft thick, but increasing to 15ft in thickness. The entrance, on WNW, is 5ft wide and lined with large slabs. The chambered cairn ND05NE 12 lies on the summit of the hill, within the fort.	ND 0594 5574
323	ND05NE4	MHG807	Sithean Buidhe Chambered Cairn **Scheduled Ancient Monument** HS INDEX 481	A chambered round cairn of the Orkney-Cromarty group, now a conspicuous grass-grown mound, steep-sided and flat-topped and apparently almost intact apart from the chamber roof which has collapsed. It is 55ft in diameter and 6ft high, and the entrance has been from the east, on which side two large passage lintels are exposed about 20ft from the edge, as are the passage walls, 3ft apart, of flat horizontally-laid slabs. To the west of the lintels, a transverse slab projects from the north side; its partner to the south was visible in 1910 (RCAHMS 1911). A short stretch of the south wall of the chamber, consisting of a few slightly oversailing courses, can also be seen.	ND 060 575
324	ND05NE13	MHG39422	Torr Mor Cairn **Scheduled Ancient Monument** HS INDEX 491	A partially heather and turf-covered cairn measuring 7.5m NW-SE by 6.5m, with a maximum height of 0.9m in the N half, situated on top of shelving rock. Slightly E of centre is the cist described by previous OS surveyor. The capstone is now displaced onto the SE side of the cairn. A number of disturbed slabs also lie on the cairn.	ND 0617 5636
325	ND05NE6	MHG1528	Loch a'Mhuilinn (Brawlbin) Cairn **Scheduled Ancient Monument** HS INDEX 464	A cairn, measuring 8m NE-SW by 7.5m transversely and 0.4m high. The 'large slab' previously noted appears more likely to be the remains of a cist than a chamber; it measures 0.8m long, 0.3m high and 0.1m thick.	ND 0627 5706

Site No.	NMRS No.	SMR No.	Site Name and Type	Description	NGR
326	ND05NE14	MHG779	Torr Beag Chambered Cairn **Scheduled Ancient Monument** HS INDEX 490	This chambered cairn is on a rise in flat heather moorland. The cairn is covered with heather and bracken. NW half rises steeply and undisturbed to a height of 2.4m, and the edge on this side is well defined. The diameter NE-SW is 16.5m and the cairn appears to be round. However, it is much less easy to trace the edge round the SE side due to disturbance and the fall in ground level which has encouraged slippage. The passage has evidently run from the SE side. Two stones, one above the other and having the appearance of a rough wall-face, can be seen well within the apparent cairn edge on this side, and, together with the lower ground level to the SE, hint at a straight edge to the cairn on either side of the entrance. About 2.5m S of the centre of the cairn two passage lintels are partly exposed. A pair of slabs set obliquely to each other 0.45m apart can be seen 1.2m to the NW. The whole centre of the cairn is a chaotic collection of stones lying at various angles, mainly flat regular slabs such as would be used as corbel stones. It is probable that the main part of the chamber survives intact except for the loss of the roof.	ND 0631 5622
327	ND05NE15	MHG780	Brawlbin Hut Circle **Scheduled Ancient Monument** HS INDEX 523	A hut circle, overgrown with heather and branches, as described and planned by RCAHMS. N of entrance a section of inner wall-face is exposed. The construction noted by RCAHMS outside the entrance appears to be merely debris. Apart from one or two mounds nearby, which may be clearance heaps, there is no evidence of associated cultivation.	ND 0646 5606
328	ND05NE16	MHG781	Torr Phadruig Hut Circles **Scheduled Ancient Monument** HS INDEX 592	Dilapidated heather and turf-covered mound, thought to be a hut circle, but perhaps a cairn, 13m in diameter by 1m high. It has been extensively disturbed by exploratory trenches, revealing a core content of medium sized slabs; there is no evidence of a chamber or passage.	ND 0671 5603
329	ND06SE5	MHG978	Framside Broch **Scheduled Ancient Monument** HS INDEX 2220	'Broch' Dimensions: 32 x 30m Grass-covered oval mound 5m high, quarried on N side where coursing has been exposed A platform 5m diameter exists at the top of the mound	ND 0890 6199
332	ND16SW 4	MHG1767	Upper Sour Broch **Scheduled Ancient Monument** HS INDEX 2218	The remains of a broch surviving as a mound surmounting a larger mound, all overgrown with rough grass. The broch mound is about 18.0m in diameter and 1.5m high but it is truncated on the N side by ploughing, and mutilated by surface quarrying. A content of slabs is exposed in the N flank. The larger mound is as described by the previous authorities.	ND 1085 6056

Site No.	NMRS No.	SMR No.	Site Name and Type	Description	NGR
333	ND16SE 18	MHG1783	Gallow Hill Cairn **Scheduled Ancient Monument** HS INDEX 483	A very large and relatively undisturbed long cairn measuring about 223ft long excluding the short, stubby horns which protrude from the SSE. In profile the monument is divided into three segments by transverse hollows indicating a multi-period construction. At the SSE end there is a steep-sided circular mound measuring about 90ft in diameter. It stands about 10ft high with a flat top about 45ft in diameter. The horns are low and are visible only as a slight rise in the surface of the field. This could be interpreted as a heel-shaped cairn. The centre mound appears to have slightly concave sides and is square rather than round. It is 4-5ft high linked to the other mounds by cairn material about 2ft deep. The NW cairn, about 4ft high, appears to be circular. The edges of the monument are fairly clear. On the W side the edge forms a fairly regular curve, but on the E side it is less regular and in particular there appears to be a bulge at the SE corner of the centre cairn. The three elements are intact so there is no indication of the nature of the interior structures; but there is some evidence from outside Scotland that small detached chambers might be built in a row; and on an extension of the axis of this cairn, and only 75ft away, there is a small cairn (ND16SE19) with the chamber aligned at right angles to the main axis.	ND 1531 6157
334	ND16SE 3	MHG1775	Sordale Hill, Cnoc na Ciste Cairn **Scheduled Ancient Monument** HS INDEX 442	Cnoc na Ciste is a chambered, round cairn about 8ft high. The tops of four slabs protrude. The irregular peristalith of boulders is now visible only on the E edge. The round chamber was partially excavated in 1895 but yielded no relics. In 1908 a food vessel was recovered 'from a niche in the wall (of the passage) protected in front by a light slab'. It is now in the National Museum of Antiquities of Scotland (NMAS, Accession no: EE 101). The Ordnance Survey Name Book (ONB, 1872) records the finding of several cists on the removal of earth from the summit of the cairn.	ND 1572 6198
337	ND16SW 8	MHG164	Tulloch of Shalmstry Broch **Scheduled Ancient Monument** HS INDEX 594	A green mound containing ruins of a broch. The outer face is exposed towards SE, and diameter overall appears to have been some 72ft, and its height about 7ft. The entrance passage, which has been from E, has been cleared at its outer end, and there measures 2ft 10ins wide. (Source: NMRS Canmore database)	ND 1316 6443
338	ND05NE 12	MHG777	Buaile Oscar Chambered Cairn **Scheduled Ancient Monument** HS INDEX 530	The chambered cairn ND05NE 12 lies on the summit of the hill, within the Buaile Oscar hillfort.	ND 0593 5585

Appendix 11-B
Importance of Cultural Heritage Sites

Importance of Cultural Heritage Sites

Contents

Table 1 Importance of Identified Sites within 1km of development (see Figure 11.1)

Site No.	Site Name and Type	SAM No	HB No	Listed Building Category	Importance[1]	Archaeological / Historical Significance
60	Spittal Hill, Well				Local	Low
63	Spittal Mains Farmstead				Local	Low
65	St Magnus, Hospital, Chapel & Burial Ground **Scheduled Ancient Monument**	5413			**National**	**High**
66	Spittal Hill, Farm Building				Local	Low
67	Spittal Hill, Farmstead				Local	Low
68	Achanarras, Chapel (possible)				Local	Low
69	Achanarras, Broch (possible)				Regional/ uncertain	Moderate/ uncertain. The nature of the site is unclear and it has been damaged however it could represent a prehistoric site and sub-surface archaeological remains may survive below the stack-yard.
70	Achcomhairle, Farmstead				Local	Low
71	Spittal Hill, Farmstead				Local	Low

[1] Definitions for *importance* and *significance* are derived from *Scottish Historic Environment Policy* (SHEP) 2009, *Scottish Planning Policy* (February 2010), with the companion Planning Advice Note (PAN 42): *Archaeology – the Planning Process and Scheduled Monument Procedures* 1994. This can be seen in section 11.7.3 of the ES.

Site No.	Site Name and Type	SAM No	HB No	Listed Building Category	Importance[1]	Archaeological / Historical Significance
72	Achcomhairle, Broch (probable)				Regional/ uncertain	Moderate/ uncertain. The nature of the site is unclear (broch / hut circle) and it has been damaged and reduced; however, it is a prehistoric site and significant remains may still be present.
290	Spittal of Mains Fields, Clearance Cairn				Local/ None	Low/ Negligible
294	Spittal Hill, Farm Building				Local	Low
295	Spittal Hill, Mound				Local/ Regional	Low/ Moderate
296	Spittal Hill, Quarry				Local	Low
299	Spittal Hill, Clearance Cairn				Local	Low
302	Achanarras, Quarry				Local	Low
303	Achanarras Quarry, Farmstead				Local	Low
304	Black Pool, Farmstead				Local	Low
305	Black Pool, Farmstead and Mine Shaft				Local	Low
306	Achanarras, Lead Mine				Regional	Moderate
307	Achanarras Hill, Farmstead				Local	Low
308	Achanarras / Benachie Farm, Hut Circles (probably Bronze Age)				Regional	Moderate
309	Achanarras, The Shean, Cairn (Neolithic) **Scheduled Ancient Monument**	475			**National**	**High**

Site No.	Site Name and Type	SAM No	HB No	Listed Building Category	Importance[1]	Archaeological / Historical Significance
310	Achlure, Hut Circles (possible)				Regional	Moderate
311	Achanarras 'B', Cairn **Scheduled Ancient Monument**	2400			**National**	**High**
312	Achanarras 'A', Cairns **Scheduled Ancient Monument**	2401			**National**	**High**
313	Benachie Farm, Farm Building and Enclosure				Local	Low
314	Achanarras, Hut Circle **Scheduled Ancient Monument**	2402			**National**	**High**
315	Achanarras Hill, Cairn and Shooting Stand				Regional	Moderate
316	Benachie Farm, Enclosure and Field System				Local	Low
317=318	Achalone, Building				Local	Low
319	Achalone, Mill Farm				Local	Low
320	Achalone, Farmstead				Local	Low
359	Achalone, Longhouse and Corn-Drying Kiln				Local	Low
360	Achlone, Farmstead				Local	Low

Table 2 Importance of Identified Sites within the 2km ZTV (see Figure 11.2)

Site No.	Site Name and Type	SAM No	Historic Building No	Listed Building Category	Importance	Archaeological / Historical Significance
42	Spittal Mains, Farmstead (possible)				Local	Low
60	Spittal Hill, Well				Local	Low
64	Torr an Fhidhlier, Prehistoric Mound				Regional/ uncertain	Moderate/ uncertain. The nature of the site is unclear and it has been damaged however it could represent a prehistoric site and some remains may still be present.
65	St Magnus, Hospital, Chapel and Graveyard **Scheduled Ancient Monument**	5413			**National**	**High**
67	Spittal Hill Farmstead				Local	Low
68	Achanarras, Chapel (possible)				Local	Low
69	Achanarras, Broch (possible)				Regional/ uncertain	Moderate/ uncertain. The nature of the site is unclear and it has been damaged however it could represent a prehistoric site and sub-surface archaeological remains may survive below the stackyard.
72	Achcomhairle, Broch (probable)				Regional/ uncertain	Moderate/ uncertain. The nature of the site is unclear (broch / hut circle) and it has been damaged and reduced; however, it is a prehistoric site and significant remains may still be present.
290	Spittal of Mains Fields, Clearance Cairn				Local/ None	Low/ Negligible
294	Spittal Hill, Farm Building				Local	Low
295	Spittal Hill, Mound				Local/ Regional	Low/ Moderate
296	Spittal Hill, Quarry				Local	Low
299	Spittal Hill, Clearance Cairn				Local	Low
301	Buolinach, Farmstead				Local	Low
302	Achanarras, Quarry				Local	Low
303	Achanarras Quarry, Farmstead				Local	Low
304	Black Pool, Farmstead				Local	Low
305	Black Pool, Farmstead and Mine Shaft				Local	Low
306	Achanarras, Lead Mine				Regional	Moderate
307	Achanarras Hill, Farmstead				Local	Low
308	Achanarras / Benachie Farm, Hut Circles (probably Bronze Age)				Regional	Moderate

Site No.	Site Name and Type	SAM No	Historic Building No	Listed Building Category	Importance	Archaeological / Historical Significance
309	Achanarras, The Shean, Cairn (Neolithic) **Scheduled Ancient Monument**	475			**National**	**High**
310	Achlure, Hut Circles (possible)				Regional	Moderate
311	Achanarras 'B', Cairn **Scheduled Ancient Monument**	2400			**National**	**High**
314	Achanarras, Hut Circle **Scheduled Ancient Monument**	2402			**National**	**High**
321	Spittal Mains Cottages, Farmstead				Local	Low
330	Achies East, Broch **Scheduled Ancient Monument**	2235			**National**	**High**
340	Spittal Hill, Market Place				Local/ Regional	Low/ Moderate
341	Spittal Hill, Farmstead				Local	Low
342	Bardnahoich, Farmstead				Local	Low
343	Houstry, Farmstead				Local	Low
344	Marl Loch, Farmstead / Enclosure				Local	Low
345	Achanarras Hill, Bank (Earthworks)				Local	Low
346	Bardsmerkie, Farmstead				Local	Low
347	Benachie, Farmstead				Local	Low
348	Bardnahoich, Building				Local	Low
349	Bardnahoich, Well				Local	Low

Table 3 Importance of Identified Sites within the 2-5km ZTV (see Figure 11.3)

Site No.	Site Name and Type	SAM No	Historic Building No	Listed Building Category	Importance	Archaeological / Historical Significance
331	Tulloch of Milton, Chambered Cairn	499			National	High
339	Braal Castle, Halkirk, Castle	619			National	High
350	Mill Pool, Hut Circles				Regional	Moderate
351	Achardale, Battle Site				Regional	Moderate
352	Moss of Halkirk, Cairn				Regional	Moderate
353	Gerston, Cist Burials				Regional	Moderate
354	Gerston, Burial Ground (possible)				Regional/ Uncertain	Moderate/ Uncertain
355	Houstry Farm, Cist				Regional	Moderate
356	Houstry Mains, Prehistoric Mound				Regional/ Uncertain	Moderate/ Uncertain
357	Church of Scotland, Bridge Street, Halkirk, Church		7799	B	Regional	Moderate
358	Halkirk Village Old Parish Church, Church		7801	B	Regional	Moderate

Appendix 11-C
Impact Assessment for Setting of Cultural Heritage Sites

Impact Assessment for Setting of Cultural Heritage Sites

Contents

Abbreviations: VH=Very High, H=High, M=Medium, L=Low, Maj=Major, Mod=Moderate, S=Slightly, Min=Minor, N=None

Table 1 Impact assessment for setting of cultural heritage sites in 0-2km ZTV

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
42	Spittal Mains Farmstead (possible), 1.4km	Low	None. This farmstead was located where the quarry entrance and showroom of Caithness Stone Industries now is.	None. This farmstead was located where the quarry entrance and showroom of Caithness Stone Industries now is.	None, in terms of change as it relates to the site.	None, in terms of change as it relates to the site.	None	Negligible	None necessary - site destroyed	None
60	Spittal Hill Well, 1km	Low	None. Location of the well has been engulfed by modern buildings of Spittal Mains Farm	None. Location of the well has been engulfed by modern buildings of Spittal Mains Farm	None, in terms of change as it relates to the site.	None, in terms of change as it relates to the site.	None	Negligible	None necessary - site no longer visible, possibly destroyed	None

[1] As Table 11.8 (based on columns B through E)

[2] As Table 11.9 (based on columns A and F)

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
62	Fairy Hillock Chambered Cairn, 1.4km	High	Moderate. The cairn is located in landscape of change, in field beside A9(T), 19th-century farm buildings, shelter belt, Spittal village & Causeymire windfarm	Moderate. The cairn has various items in mid and foreground - with A9(T), 19th-century farm buildings, shelter belt, Spittal village & Causeymire windfarm.	None, in terms of change as it relates to the site. The site is not in the impact envelope due to shelter belt.	None, in terms of change as it relates to the site. The site is completely screened from station by shelter belt.	None	Negligible	None necessary, because of existing shelter belt	None
63	Spittal Mains Farmstead, 1km	Low	Mod. The surrounding farmland & squared fields are part of this farm's landscape including the development site. But, this landscape is one of change, e.g. large modern farm outbuildings.	Mod. The surrounding farmland & squared fields are part of this farm including the development site. But, the views constantly change, e.g. large modern farm outbuildings, shelter belt plantations.	H. This is a major change within the landscape relevant to the farm.	M. Development not visible from farmhouse, no views out to development from 19th-century outbuildings (see L & V chapter 10)	Moderate	Minor	LV2 & 3; LV4; LV12; LV7 & 9	Minor, because development will still be visible.

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
64	Torr an Fhidhlier Prehistoric Mound, 1.1km	Moderate/ uncertain	Mod. The squared fields not key. Tolerant to some change, changes have included farm, shelter belt, A9(T).	Mod / Min. Usually only seen in few seconds on A9(T). Has concrete water tank on top. Farm in foreground.	M. Because of proximity. Unimproved landscape on Achanarras ridge not changed.	M. View to mound not affected. Though view from mound is, with development in full view, roof at level of shelter belt to N, & does not impede view to prehistoric sites on Achanarras ridge	Moderate	Moderate	LV2 & 3; LV4; LV12; LV7 & 9	Minor, because development will still be visible.

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
65	St Magnus Hospital, Chapel and Graveyard, 0.7km	High	H/Mod. Set in very locally open landscape, but bounded by change, including quarry & spoil heaps, shelter belts, farmstead with large modern sheds, windfarm in mid distance. Though open, fields are rectilinear post-improvement. Within its fence, the SAM's setting is being impacted by thistles, nettles etc. Spittal Hill & parts of Achanarras ridge are as historic landscape may have been at time chapel etc in use.	Mod. Little visited. Overgrown and still decaying. Hard to see in views, including from A9(T), because low-lying. No important views from it – already changed by shelter belts, farmstead and windfarm.	H. Because of size & proximity of development in terms of very local area. However, historic aspects of landscape not changed except in the field of the development.	H. Because of size & proximity of development in terms of very local area. However existing views to earlier and contemporary sites, which are on Achanarras ridge and Spittal Hill, not impeded.	Major / Moderate	Major / Moderate	LV2 & 3; LV4; LV12; LV7 & 9	Moderate

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
67	Spittal Hill Farmstead, 0.3km	Low	Mod. Landscape already changed – fields squared & enclosed, though still open.	Mod. Not visited.[2]	H. Because so close.	H. Because so close. However, views to other cleared or pre-improvement farms only impacted at N edge of panorama to W	Moderate / Major	Minor	LV2 & 3; LV4; LV12; LV7 & 9 CH1	Minor. Development will still be visible and very close.
68	Achanarras Chapel (possible), 0.3km	Low	S. It is not certain that this site actually exists. Certainly not visible.	S. It is not certain that this site actually exists. Certainly not visible.	L. It is not certain that this site actually exists. Certainly not visible.	L. It is not certain that this site actually exists. Certainly not visible.	Minor	Negligible	None necessary.	None
69	Achanarras Broch (possible), 0.3km	Moderate/ uncertain	S. Currently this site is not visible, partly ploughed out and buried beneath Achanarras farm outbuildings and farmyard	S. Currently this site is not visible, partly ploughed out and buried beneath Achanarras farm outbuildings and farmyard	L. Relevant landscape is at the farmyard and unimproved land to W, not that to NE	L. Nothing visible to be impacted.	Minor	Negligible	None necessary	None

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
72	Achcomhairle Broch (probable), 0.45km	Moderate/ uncertain	S. Much robbed and reduced to lowest courses. Landscape changed by adjacent forestry and the A9(T).	S. Much robbed and reduced to lowest courses. Site not visited.[2] Well-maintained stone wall and A9(T) in foreground before the converter station	M. Because of proximity.	M. Because of proximity. Views of prehistoric sites on Achanarras ridge will not be blocked.	Minor	Minor	LV2 & 3; LV4; LV12; LV7 & 9 CH1	Minor, because development will still be visible
290	Spittal of Mains Fields, Clearance Cairn, 0km	Low/ negligible	S.	S.	VH.	VH.	Minor. This modern clearance cairn will be removed by the construction of the converter station.	Negligible	Removal by construction. CH2	None

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
294	Spittal Hill, Farm Building, 0.4km	Low	Mod. Landscape already changed – fields squared & enclosed, though still open, & adjacent to old A9(T).	Mod. Not visited[2].	H. Because so close.	H. Because so close. However, views to other cleared or pre-improvement farms only impacted at N edge of panorama to W	Moderate / Major	Minor	LV2 & 3; LV4; LV12; LV7 & 9 CH1	Minor. Development will still be visible and very close.
295	Spittal Hill, Mound, 0.4km	Low/ Moderate	Mod. Landscape already changed – fields squared & enclosed, though still open, & adjacent to old A9(T). Nature of site & therefore setting uncertain	Mod. Not visited[2]. Nature of site & therefore setting uncertain	H. Because so close.	H. Because so close. However, views to other cleared or pre-improvement farms and to prehistoric sites on Achanarras ridge only impacted at N edge of panorama to W	Moderate / Major	Minor / Moderate	LV2 & 3; LV4; LV12; LV7 & 9 CH1	Minor. Development will still be visible and very close.

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
296	Spittal Hill, Quarry, 0.5km	Low	S. The quarry is essentially self-contained.	S. The quarry is not used or visited. Well-maintained stone wall and A9(T) in foreground before the converter station	M. Though close, the relationship is not important.	M. Station to N side of unimpeded views of other quarry (Site 302).	Minor	Negligible	LV2 & 3; LV4; LV12; LV7 & 9 LV10.	None
299	Spittal Hill, Clearance Cairn, 0.8km	Low / Negligible	S.	S.	M.	M.	Minor. This is a modern clearance cairn.	Negligible	None necessary	None.
301	Buolinach Farmstead, 1.4km	Low	S. The landscape relevant to this cleared farm is in its vicinity on the ridge, already changed by quarrying and shelter belts. Converter station area has squared and ploughed fields.	S. Site not visited[2]. Quarry heaps of site 302 in foreground. New mixed woodland to NW which will grow and reduce impact.	M. Despite proximity, converter station is confined to an area no longer historically relevant to farm's landscape setting	M. Though clearly noticeable, does not impede views to earlier or contemporary sites.	Moderate	Minor	LV2 & 3; LV4; LV12; LV7 & 9	Negligible

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
302	Achanarras Quarry, 0.9km	Low	S. The landscape relevant is in its vicinity on the ridge.	S. Site not visited as a cultural heritage attraction. Quarry heaps of in foreground. New mixed woodland to NW which will grow and reduce impact.	M. Despite proximity, converter station is confined to an area no longer historically relevant to farm's landscape setting	M. Though clearly noticeable, does not impede views to earlier or contemporary sites.	Moderate	Minor	LV2 & 3; LV4; LV12; LV7 & 9	Negligible
303	Achanarras Quarry Farmstead, 1.1km	Low	S. The landscape relevant to this cleared farm is in its vicinity on the ridge, already changed by quarrying and shelter belts. Converter station area has squared and ploughed fields.	S. Site not visited[2]. Quarry heaps of site 302 in foreground. New mixed woodland to NW which will grow and reduce impact.	M. Despite proximity, converter station is confined to an area no longer historically relevant to farm's landscape setting	M. Though clearly noticeable, does not impede views to earlier or contemporary sites.	Moderate	Minor	LV2 & 3; LV4; LV12; LV7 & 9	Negligible

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
304	Black Pool Farmstead, 1km	Low	S. The landscape relevant to this cleared farm is in its vicinity on the ridge, already changed by quarrying and shelter belts. Converter station area has squared and ploughed fields.	S. Site not visited[2]. Quarry heaps of site 302 in foreground. New mixed woodland to NW which will grow and reduce impact.	M. Despite proximity, converter station is confined to an area no longer historically relevant to farm's landscape setting	M. Though clearly noticeable, does not impede views to earlier or contemporary sites.	Moderate	Minor	LV2 & 3; LV4; LV12; LV7 & 9	Negligible
305	Black Pool Farmstead and Mine Shaft, 0.7km	Low	S. The landscape relevant to this cleared farm is in its vicinity on the ridge, already changed by quarrying and shelter belts. Converter station area has squared and ploughed fields.	S. Site not visited[2]. Quarry heaps of site 302 in foreground. New mixed woodland planted to NW which will grow and reduce impact.	M. Despite proximity, converter station is confined to an area no longer historically relevant to farm's landscape setting	M. Though clearly noticeable, does not impede views to earlier or contemporary sites.	Moderate	Minor	LV2 & 3; LV4; LV12; LV7 & 9	Negligible

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
306	Achanarras Lead Mine, 07km	Moderate	S. The mine is underground and any surface features (mine shaft) contained within spoil heaps quarry site 302.	S. The mine is underground and any surface features (mine shaft) contained within spoil heaps quarry site 302. Not visited[2].	L. For same reason as sensitivity level.	L. For same reason as sensitivity level.	Minor	Minor	LV2 & 3; LV4; LV12; LV7 & 9	Negligible
307	Achanarras Hill Farmstead, 0.5km	Low	S. The landscape relevant to this cleared farm is in its vicinity on the ridge, already changed by quarrying and shelter belts. Converter station area has squared and ploughed fields.	S. Site not visited[2]. Achanarras farm and outbuildings in foreground.	M. Despite proximity, converter station is confined to an area no longer historically relevant to farm's landscape setting	M. Though clearly noticeable, does not impede views to earlier or contemporary sites.	Moderate	Minor	LV2 & 3; LV4; LV12; LV7 & 9	Negligible

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
308	Achanarras / Benachie Farm Hut Circles (probably Bronze Age), 0.7km	Moderate	H. The hut circles are located at edge of open rough grazing on ridge and associated with sites of similar periods in immediate vicinity. Area surrounded by change from plantations, quarry and spoil heaps to S and post-improvement farming practices.	H. Set on ridge with views to other prehistoric sites, especially to N. However, plantations in foreground and quarry spoil heaps to S.	M. Change in a limited area, in improved rectilinear field landscape rather than on ridge landscape	M. The station site partly hidden by new plantation between it and hut circles. Views to other prehistoric sites not impeded. Brief view from A9(T) not blocked, but may partly be over top of converter station	Major / Moderate	Moderate / Minor	LV2 & 3; LV7 & 9	Minor. Still some visibility

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
309	Achanarras, The Shean Cairn (Neolithic), 0.7km	High	H. The cairn is located at edge of open grazing on ridge and associated with sites of similar periods in immediate vicinity. Area surrounded by change from plantations, quarry and spoil heaps to S and post-improvement farming practices.	H. Set on ridge with views to other prehistoric sites, especially to N. However, plantations in foreground and quarry spoil heaps to S.	M. Change in a limited area, in improved rectilinear field landscape rather than on ridge landscape	M / L. The station site already almost completely hidden by new plantation between it and cairn. Views to other prehistoric sites not impeded. Brief view from A9(T) not blocked, but may partly be over top of converter station	Moderate	Moderate	LV2 & 3; LV7 & 9	Minor

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
310	Achlure Hut Circles (possible), 0.8km	Moderate	H. The hut circle is located in open moss landscape and associated with sites of similar periods in immediate vicinity. Area surrounded by change from plantations and post-improvement farming practices.	H. The hut circle is located in open moss landscape with views of associated with sites of similar period in immediate vicinity	M. Change in limited area, not particularly noticeable, and in improved rectilinear field beyond shelter belt. The open moss not affected	M/L. Only roof visible. Plantation growth may screen more of this out. Views of contemporary sites not affected	Moderate	Moderate	LV2 & 3; LV7 & 9	Minor. May still be a small amount of visibility.
311	Achanarras 'B' Cairn, 0.8km	High	H. The cairn is located in open moss landscape and associated with sites of similar period in immediate vicinity. Area surrounded by change from plantations and post-improvement farming practices.	H. The cairn is located in open moss landscape with views of associated with sites of similar period in immediate vicinity	M. Change in limited area, in improved rectilinear field beyond shelter belt. The open moss not affected.	L. Only top of roof visible. Plantation growth may screen this out altogether. Views of contemporary sites not affected	Moderate	Moderate	LV2 & 3; LV7 & 9	Minor

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
312	Achanarras 'A' Cairns, 0.7km	High	H. The cairn is located in open moss landscape and associated with sites of similar period in immediate vicinity. Area surrounded by change from plantations and post-improvement farming practices.	H. The cairn is located in open moss landscape with views of associated with sites of similar period in immediate vicinity	None, in terms of change as it relates to the site. The site is not in the impact envelope due to fold in land, shelter belt and new plantation.	None, in terms of change as it relates to the site. The site is completely screened from station by fold in land, shelter belt and new plantation.	None	Negligible	LV2 & 3; LV7 & 9	None
314	Achanarras Hut Circle, 0.5km	High	H. The hut circle is located in open moss landscape and associated with sites of similar periods in immediate vicinity. Area surrounded by change from plantations and post-improvement farming practices.	H. The hut circle is located in open moss landscape with views of associated with sites of similar period in immediate vicinity	L / M. Change in limited area, not particularly noticeable, and in improved rectilinear field beyond shelter belt.	L / M. Part of the station will just be visible in a gap between shelter belt and new plantation. Views of associated sites in moss will not be affected.	Moderate / Minor	Moderate / Minor	LV2 & 3; LV7 & 9	Minor

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
315	Achanarras Hill Cairn and Shooting Stand, 0.6km	Moderate	H. The cairn is located in open moss landscape and associated with sites of similar period in immediate vicinity. Area surrounded by change from plantations and post-improvement farming practices.	H. The cairn is located in open moss landscape with views of associated with sites of similar period in immediate vicinity	None, in terms of change as it relates to the site. The site is not in the impact envelope due to shelter belt.	None, in terms of change as it relates to the site. The site is not in the impact envelope due to shelter belt.	None	Negligible	LV2 & 3; LV7 & 9	None

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
321	Spittal Mains Cottages Farmstead, 1.1km	Low	Mod. The surrounding farmland & squared fields are part of the cottages' landscape including the development site. But, this landscape is one of change, e.g. large modern farm outbuildings & Causeymire windfarm to S.	Mod. The cottages are part of the surrounding farmland & squared fields of Spittal Mains Farm including the development site. But, the views constantly change, e.g. large modern farm outbuildings in foreground, between cottages and converter station.	H. This is a major change within the landscape relevant to the cottages.	M. Development visible, but modern farm buildings screen some of the impact. Also doors and windows of the cottages mostly face E & W, not N to development.	Moderate	Minor	LV2 & 3; LV4; LV12; LV7 & 9	Minor, because development will still be visible.
330	Achies East Broch, 1.3km	High	M to S and E (towards station) where have plantations & land improved. H in immediate vicinity & to N.	M. to S & E where shelter belts & plantations very close. H to N & W with open views.	M. Change in limited area	L. Only roof potentially visible, but may already be blocked by plantations	Moderate	Moderate	LV2 & 3; LV7 & 9	Minor

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
340	Spittal Hill Market Place, 1.2km	Low/ Moderate	Mod. The hill is a key landscape feature, but the site itself is not. However, location	Mod. The market place is located to be at a place with views. Not visited[2]. No visible traces of the market place.	M. Despite proximity, converter station is confined to a limited area.	M. Views to contemporary sites such as cleared farmsteads & even St Magnus chapel not impeded by station, which does not break skyline & is a limited change in overall view.	Moderate	Minor	LV2 & 3; LV4; LV12; LV10; LV7 & 9	Negligible
341	Spittal Hill Farmstead, 1km	Low	S. The landscape relevant to this cleared farm is in its vicinity on the hill, already changed by deep drainage cuts, quarrying and shelter belts. Converter station area has post-improvement squared and ploughed fields.	S. Site not visited[2]. Change not important.	M. Despite proximity, converter station is confined to an area no longer historically relevant to farm's landscape setting	M. Though clearly noticeable, station does not impede views to earlier or contemporary sites. Site high enough to look over top of station.	Moderate	Minor	LV2 & 3; LV4; LV12; LV7 & 9	Negligible

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
342	Bardnahoich Farmstead, 1.7km	Low	S. The landscape relevant to this cleared farm is already changed by post-improvement squared and ploughed fields and adjacent modern fish ponds to W. Moss to SE most relevant to setting	S.	L.	L. Only highest part of roof may be visible	Minor	Negligible	LV2 & 3; LV7 & 9	Negligible / None
343	Houstry Farmstead, 1.9km	Low	S. The landscape relevant to this cleared farm is already changed by post-improvement squared and ploughed fields. Open moss to S most relevant to setting	S. Views unimportant.	L.	L. Only highest part of roof may be visible	Minor	Negligible	LV2 & 3; LV7 & 9	Negligible / None

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
344	Marl Loch Farmstead / Enclosure, 1.4km	Low	S. The landscape relevant to this cleared farm is already changed by post-improvement squared and ploughed fields. Open moss to E most relevant to setting	S. Views unimportant.	M. Because part of full height of station visible.	M. Because part of full height of station visible in gap in plantations.	Minor	Negligible	LV2 & 3; LV7 & 9	Negligible / None
345	Achanarras Hill Bank (Earthworks), 0.7km	Low	S. The landscape relevant to this field system is the immediate vicinity of unimproved open moss. Converter station lies beyond this.	S. Views unimportant.	L.	L. Only highest part of roof may be visible	Minor	Negligible	LV2 & 3; LV7 & 9	Negligible / None

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
346	Bardsmerkie Farmstead, 1.7km	Low	S. The landscape relevant to this cleared farm is in its vicinity, already changed by quarrying, plantations, shelter belts and Causeymire windfarm to S.	S. Site not visited[2]. Shelter belt in foreground to N, though buildings faced S in direction of Causeymire windfarm.	M. Converter station is confined to a limited area.	M. Though clearly noticeable, does not impede views to earlier or contemporary sites.	Moderate / Minor	Minor / Negligible	LV2 & 3; LV4; LV12; LV7 & 9	Negligible
347	Benachie Farmstead, 1.8km	Low	S. This is a working farm with the changes to landscape that implies.	S. Working farm, facing S and W.	L/M. Contained in a limited area.	M. The roofs of station will be visible, but views to contemporary sites not impeded.	Minor	Negligible	LV2 & 3; LV7 & 9	Negligible / None
348	Bardnahoich Building, 1.8km	Low	S. This is a working farm with the changes to landscape that implies, including modern fish ponds.	S. Working farm, facing S and W.	L/M. Contained in a limited area.	M. The roofs of station will be visible, but views to contemporary sites not impeded.	Minor	Negligible	LV2 & 3; LV7 & 9	Negligible / None

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[1]**	**Importance of Pre-Mitigation Setting Impacts[2]**	**Mitigation commitments[1]**	**Significance of Residual Impact (Post Mitigation)**
349	Bardnahoich Well, 1.8km	Low	S. Well is on working farm with the changes to landscape that implies, including modern fish ponds.	S. Working farm, facing S and W.	L. Contained in a limited area, not really relevant to well.	L. The roofs of station will be visible, but views unimportant to the site.	Minor	Negligible	LV2 & 3; LV7 & 9	Negligible / None

[1] Wording of relevant mitigation measures repeated below. See also Annex II.

CH1: The contractor will be made aware of those sites in closest proximity to the site (Sites 65, 67, 294 and 295). If the ECoW identifies any activity which could impact on these sites directly or indirectly a buffer zone will be marked off to protect the site. The ECoW will make regular checks to ensure that no site is impacted on by the works.
CH2: SHETL will instate a reporting protocol as part of the CEMD which will be agreed with The Highland Council Archaeologist for any accidental archaeological discoveries made during the construction works. The protocol will include contact information for the relevant cultural heritage authority (The Highland Council) and the requirement to stop work until an appropriate mitigation strategy is agreed with The Highland Council archaeologists. The content of the protocol will be part of the site induction for all site workers. The contractor and site ECoW will be responsible for ensuring the successful implementation of the measures in the protocol.
LV2: The colour scheme for the building will aim to make the development visually recessive and to break up the apparent bulk of the structure, potentially by using varying hues or colours on different building elements.
LV3: The colours selected will be agreed with The Highland Council and be designed to minimise visual contrast with the landscape backdrop. Preliminary consideration of the local landscape suggests that colours are likely to be selected from the range RAL 6003 to 6013, potentially with some detail elements from the range RAL 8000 to 8004.
LV4: Surplus material from the excavations will be used to reshape the valley immediately around the proposed converter station to reduce the extent to which it is visible from the A9, Spittal Mains and St. Magnus church, burial ground and hospital, but avoiding the creation of distinct 'bunds'.
LV7: The existing shelterbelt will be retained and managed as a long-term visual screen to the development.
LV9: The shelterbelt will be reinforced with the planting of a parallel belt of woodland to the north. This will be a mixture of native deciduous and appropriate evergreen species to provide a more natural woodland edge whilst maintaining effective screening.
LV10: Extensive linear clumps of planting will be introduced along the A9(T) between Spittal Mains and the existing shelterbelt to filter views from the road. This will be primarily of native deciduous species with a small proportion of evergreens to enhance screening in winter.
LV12: Clumps of planting will be introduced close to the development on the regraded valley slopes immediately south of the site to filter views from Spittal Mains farmyard and from the site of St. Magnus church, burial ground and hospital.

[2] 'Not visited' used as in Methodology Table 11.6, i.e. not visited by people/human receptors.

Table 2 Impact assessment for setting of cultural heritage sites of moderate to very high importance in 2-5km ZTV

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[3]**	**Importance of Pre-Mitigation Setting Impacts[4]**	**Mitigation commitments**	**Significance of Residual Impact (Post Mitigation)**
331	Tulloch of Milton, Chambered Cairn, 4.6km	High	Mod. Set low in valley, open landscape to S towards site, but with railway in foreground & Halkirk 0.6km to E	Mod. Too low-lying to have clear view to other prehistoric sites to S/SE (sites 352, 356, 311, 312, 314) Used to have some intervisibility with Sites 308 & 309 on Achanarras ridge, but now blocked by mixed woodland plantation.	M/L. Only roof visible in limited area.	M/L. Most of roof visible.	Moderate	Moderate	LV2 & 3; LV7 & 9	Minor, because limited part of station may remain visible

[3] As Table 11.8 (Based on columns B through E)

[4] As Table 11.9 (based on columns A and F)

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[3]**	**Importance of Pre-Mitigation Setting Impacts[4]**	**Mitigation commitments**	**Significance of Residual Impact (Post Mitigation)**
339	Braal Castle, Halkirk, Castle, 4.8km	High	Mod. Only sensitive in immediate 0.5km, area of grounds. Halkirk adjacent and railway 1.6km toS. A9(T) prominent to E.	S. Mod only in immediate area setting of private designed woodland of unlisted modern Braal Castle. Modern Castle in foreground, blocking much of view even if woods felled.	L. Only tip of highest roof might be visible in very limited area.	L. Only tip of highest roof might be visible.	Minor	Minor	LV2 & 3; LV7 & 9	Negligible / None
350	Mill Pool, Hut Circles, 4.6km	Moderate	S/Mod. In open moss, but some relict peat cutting, railway 0.6km to N & modern farms to E towards site.	Mod. In open moss, but modern farms in fore/mid ground.	M. Part of full station visible, but limited area.	M. Present views of prehistoric sites (Sites 308, 309) not blocked, but station is in background of these views. Views of sites may already be blocked by plantations	Moderate	Moderate	LV2 & 3; LV7 & 9;	Minor, because limited part of station may remain visible

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[3]**	**Importance of Pre-Mitigation Setting Impacts[4]**	**Mitigation commitments**	**Significance of Residual Impact (Post Mitigation)**
351	Achardale, Battle Site, 4km	Moderate	S/Mod. At edge of fields & farming, substantial farms to E. Railway to N.	S/Mod. Open landscape, but modern farm buildings & farming & plantations dominate view to E to station	M. Part of full station visible, but limited area.	M. Station in background of views.	Minor/Moderate	Minor/Moderate	LV2 & 3; LV7 & 9;	Minor / Negligible
352	Moss of Halkirk, Cairn, 3.1km	Moderate	Mod. In open squared fields, close to road railway and modern farm.	S/Mod. Open view towards site, but large modern farm in foreground.	L. Only tip of highest roof visible in very limited area.	M. Present views of prehistoric sites (Sites 308, 309, 311, 312, 314) not blocked, but highest top of station roof is in background of these views	Moderate	Moderate	LV2 & 3; LV7 & 9	Minor, because limited part of station may remain visible
353	Gerston, Cist Burials, 4.9km	Moderate	S. 19th-century discovery of long cist (early Christian?) burials. Now located in modern farmyard.	S. Site not visible on surface at modern farm. Not visited.	M/L. Only roof visible in limited area.	L/M. Most of roof visible, but the cist burials are not, for the view to/from them to be impacted.	Minor	Minor	LV2 & 3; LV7 & 9	Negligible

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[3]**	**Importance of Pre-Mitigation Setting Impacts[4]**	**Mitigation commitments**	**Significance of Residual Impact (Post Mitigation)**
354	Gerston, Burial Ground (possible), 4.9km	Moderate / Uncertain	S. 19th-century discovery of human bones washing out of riverbank. Now beside modern farmyard.	S. Site not visible on surface beside modern farm. Not visited.	M/L. Only roof visible in limited area.	L/M. Most of roof visible, but the burial ground is not, for the view to/from it to be impacted.	Minor	Minor	LV2 & 3; LV7 & 9	Negligible
355	Houstry Farm, Cist, 2.7km	Moderate	S. Accidental discovery exposed and eroding at field gate. Surrounding landscape not important to it.	S. Views to/from site appear irrelevant. Not visited, on private land.	L. Only tip of highest roof might be visible in very limited area.	L/M. Present views of prehistoric sites (Sites 308, 309, 311, 312, 314) not blocked, but highest top of station roof is in background of these views	Minor	Minor	LV2 & 3; LV7 & 9	Negligible

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting[3]**	**Importance of Pre-Mitigation Setting Impacts[4]**	**Mitigation commitments**	**Significance of Residual Impact (Post Mitigation)**
356	Houstry Mains, Prehistoric Mound, 2.8km	Moderate / Uncertain	Mod. In open squared fields, close to road railway and modern farm.	S/Mod. Open view towards site, but large modern farm at side of foreground.	L. Only tip of highest roof might be visible in very limited area.	M. Present views of prehistoric sites (Sites 308, 309, 311, 312, 314) not blocked, but highest top of station roof is in background of these views	Moderate	Moderate	LV2 & 3; LV7 & 9	Minor / Negligible

[1] Wording of relevant mitigation measures repeated below. See also Annex II.

LV2: The colour scheme for the building will aim to make the development visually recessive and to break up the apparent bulk of the structure, potentially by using varying hues or colours on different building elements.

LV3: The colours selected will be agreed with The Highland Council and be designed to minimise visual contrast with the landscape backdrop. Preliminary consideration of the local landscape suggests that colours are likely to be selected from the range RAL 6003 to 6013, potentially with some detail elements from the range RAL 8000 to 8004.

LV7: The existing shelterbelt will be retained and managed as a long-term visual screen to the development.

LV9: The shelterbelt will be reinforced with the planting of a parallel belt of woodland to the north. This will be a mixture of native deciduous and appropriate evergreen species to provide a more natural woodland edge whilst maintaining effective screening.

Table 3 Impact assessment for setting of cultural heritage sites of high to very high importance in 5-10km ZTV

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting** As table 11.8 (Based on columns B through E)	**Importance of Pre-Mitigation Setting Impacts** As table 11.9 (based on columns A and F)	**Mitigation commitments**	**Significance of Residual Impact (Post Mitigation)**
322	Buaile Oscar Hillfort, 9.3km	High	Mod. Has Ben Dorrery telecoms mast and maintenance building less than 1km to S. Commanding position in landscape part of nature of the site & setting, in wider landscape as at this distance from station, only dominant or high landmarks & landforms relevant.	Mod. Ben Dorrery telecoms mast and maintenance building less than 1km to S likely to attract eye. Though commanding views from & views to it part of nature of the site & setting, at this wider scale at this distance from station, only dominant or high landmarks & landforms relevant.	L. Change in wider landscape in very limited area. From A9(T) beside station asset still commands landscape because station set in dip.	L. Change in wider view in very limited area. Viewed from asset, station unlikely to be noted. From A9(T) beside station asset still commands view because station set in dip.	Minor	Minor	LV2 & 3; LV7 & 9	Negligible / None

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting** As table 11.8 (Based on columns B through E)	**Importance of Pre-Mitigation Setting Impacts** As table 11.9 (based on columns A and F)	**Mitigation commitments**	**Significance of Residual Impact (Post Mitigation)**
323	Sithean Buidhe Chambered Cairn, 9.4km	High	Mod. Has Ben Dorrery telecoms mast and maintenance building less than 1km to S. Commanding position in landscape part of nature of the site & setting, in wider landscape as at this distance from station, only dominant or high landmarks & landforms relevant.	Mod. Ben Dorrery telecoms mast and maintenance building less than 1km to S likely to attract eye. Though commanding views from & views to it part of nature of the site & setting, at this wider scale at this distance from station, only dominant or high landmarks & landforms relevant.	L. Change in wider landscape in very limited area. From A9(T) beside station asset not a visible part of landscape.	L. Change in wider view in very limited area. Viewed from asset, station unlikely to be noted. From A9(T) beside station asset too small to be visible.	Minor	Minor	LV2 & 3; LV7 & 9	Negligible / None

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting** As table 11.8 (Based on columns B through E)	**Importance of Pre-Mitigation Setting Impacts** As table 11.9 (based on columns A and F)	**Mitigation commitments**	**Significance of Residual Impact (Post Mitigation)**
324	Torr Mor Cairn, 9.1km	High	Mod. High closer to the asset, but though commanding position in landscape part of nature of the site & setting, in wider landscape as at this distance from station, only dominant or high landmarks & landforms relevant.	Mod. Though commanding views from & views to it part of nature of the site & setting, at this wider scale at this distance from station, only dominant or high landmarks & landforms relevant.	L. Change in wider landscape in very limited area. From A9(T) beside station asset not a visible part of landscape.	L. Change in wider view in very limited area. Viewed from asset, station unlikely to be noted. From A9(T) beside station asset too small to be visible.	Minor	Minor	LV2 & 3; LV7 & 9	Negligible / None

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting** As table 11.8 (Based on columns B through E)	**Importance of Pre-Mitigation Setting Impacts** As table 11.9 (based on columns A and F)	**Mitigation commitments**	**Significance of Residual Impact (Post Mitigation)**
325	Loch a'Mhuilinn (Brawlbin) Cairn, 9km	High	Mod. High closer to the asset, but though commanding position in landscape part of nature of the site & setting, in wider landscape as at this distance from station, only dominant or high landmarks & landforms relevant.	Mod. Though commanding views from & views to it part of nature of the site & setting, at this wider scale at this distance from station, only dominant or high landmarks & landforms relevant.	L. Change in wider landscape in very limited area. From A9(T) beside station asset not a visible part of landscape.	L. Change in wider view in very limited area. Viewed from asset, station unlikely to be noted. From A9(T) beside station asset too small to be visible.	Minor	Minor	LV2 & 3; LV7 & 9	Negligible / None

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting** As table 11.8 (Based on columns B through E)	**Importance of Pre-Mitigation Setting Impacts** As table 11.9 (based on columns A and F)	**Mitigation commitments**	**Significance of Residual Impact (Post Mitigation)**
326	Torr Beag Chambered Cairn, 9km	High	Mod. High closer to the asset, but though commanding position in landscape part of nature of the site & setting, in wider landscape as at this distance from station, only dominant or high landmarks & landforms relevant.	Mod. Though commanding views from & views to it part of nature of the site & setting, at this wider scale at this distance from station, only dominant or high landmarks & landforms relevant.	L. Change in wider landscape in very limited area. From A9(T) beside station asset not a visible part of landscape.	L. Change in wider view in very limited area. Viewed from asset, station unlikely to be noted. From A9(T) beside station asset too small to be visible.	Minor	Minor	LV2 & 3; LV7 & 9	Negligible / None

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting** As table 11.8 (Based on columns B through E)	**Importance of Pre-Mitigation Setting Impacts** As table 11.9 (based on columns A and F)	**Mitigation commitments**	**Significance of Residual Impact (Post Mitigation)**
327	Brawlbin Hut Circle, 8.7km	High	Mod. High closer to the asset, but though commanding position in landscape part of nature of the site & setting, in wider landscape as at this distance from station, only dominant or high landmarks & landforms relevant.	Mod. Though commanding views from & views to it part of nature of the site & setting, at this wider scale at this distance from station, only dominant or high landmarks & landforms relevant.	L. Change in wider landscape in very limited area. From A9(T) beside station asset not a visible part of landscape.	L. Change in wider view in very limited area. Viewed from asset, station unlikely to be noted. From A9(T) beside station asset too small to be visible.	Minor	Minor	LV2 & 3; LV7 & 9	Negligible / None

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting** As table 11.8 (Based on columns B through E)	**Importance of Pre-Mitigation Setting Impacts** As table 11.9 (based on columns A and F)	**Mitigation commitments**	**Significance of Residual Impact (Post Mitigation)**
328	Torr Phadruig Hut Circles, 8.5km	High	Mod. High closer to the asset, but though commanding position in landscape part of nature of the site & setting, in wider landscape as at this distance from station, only dominant or high landmarks & landforms relevant.	Mod. Though commanding views from & views to it part of nature of the site & setting, at this wider scale at this distance from station, only dominant or high landmarks & landforms relevant.	L. Change in wider landscape in very limited area. From A9(T) beside station asset not a visible part of landscape.	L. Change in wider view in very limited area. Viewed from asset, station unlikely to be noted. From A9(T) beside station asset too small to be visible.	Minor	Minor	LV2 & 3; LV7 & 9	Negligible / None

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting** As table 11.8 (Based on columns B through E)	**Importance of Pre-Mitigation Setting Impacts** As table 11.9 (based on columns A and F)	**Mitigation commitments**	**Significance of Residual Impact (Post Mitigation)**
329	Framside Broch, 9.1km	High	S. Mod-H in more immediate vicinity, especially in relation to other brochs. At this distance from station, only dominant or high landmarks & landforms relevant.	S. Mod-H in more immediate vicinity, but at this wider scale at this distance from station, only skyline landmarks & landforms relevant.	L. Change in wider landscape in very limited area. From A9(T) beside station asset not a visible part of landscape.	L. Only highest part of roof may be visible. From A9(T) beside station asset not visible.	Minor	Minor	LV2 & 3; LV7 & 9	None
332	Upper Sour Broch, 6.6km	High	S. Mod-H in more immediate vicinity, especially in relation to other brochs. At this distance from station, only dominant or high landmarks & landforms relevant.	S. Mod-H in more immediate vicinity, but at this wider scale at this distance from station, only skyline landmarks & landforms relevant.	L. Change in wider landscape in very limited area. From A9(T) beside station asset not a visible part of landscape.	L. Only roof may be visible. From A9(T) beside station asset not visible.	Minor	Minor	LV2 & 3; LV7 & 9	None

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting** As table 11.8 (Based on columns B through E)	**Importance of Pre-Mitigation Setting Impacts** As table 11.9 (based on columns A and F)	**Mitigation commitments**	**Significance of Residual Impact (Post Mitigation)**
333	Gallow Hill Cairn, 6km	High	Mod. High closer to the asset, but though commanding position in landscape part of nature of the site & setting, in wider landscape as at this distance from station, only dominant or high landmarks & landforms relevant.	Mod. Though commanding views from & views to it part of nature of the site & setting, at this wider scale at this distance from station, only dominant or high landmarks & landforms relevant.	L. Change in wider landscape in very limited area. From A9(T) beside station asset not a visible part of landscape.	L. Only highest part of roof may be visible. From A9(T) beside station asset not visible. Views from/to other cairn sites such as Sites 309, 311, 312, not impeded.	Minor	Minor	LV2 & 3; LV7 & 9	Negligible / None

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting** As table 11.8 (Based on columns B through E)	**Importance of Pre-Mitigation Setting Impacts** As table 11.9 (based on columns A and F)	**Mitigation commitments**	**Significance of Residual Impact (Post Mitigation)**
334	Sordale Hill, Cnoc na Ciste Cairn, 6.4km	High	Mod. High closer to the asset, but though commanding position in landscape part of nature of the site & setting, in wider landscape as at this distance from station, only dominant or high landmarks & landforms relevant.	Mod. Though commanding views from & views to it part of nature of the site & setting, at this wider scale at this distance from station, only dominant or high landmarks & landforms relevant.	L. Change in wider landscape in very limited area. From A9(T) beside station asset not a visible part of landscape.	L. Only highest part of roof may be visible. From A9(T) beside station asset not visible. Views from/to other cairn sites such as Sites 309, 311, 312, not impeded.	Minor	Minor	LV2 & 3; LV7 & 9	Negligible / None

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting** As table 11.8 (Based on columns B through E)	**Importance of Pre-Mitigation Setting Impacts** As table 11.9 (based on columns A and F)	**Mitigation commitments**	**Significance of Residual Impact (Post Mitigation)**
337	Tulloch of Shalmstry Broch, 9.2km	High	S. Mod-H in more immediate vicinity, especially in relation to other brochs. At this distance from station, only dominant or high landmarks & landforms relevant.	S. Mod-H in more immediate vicinity, but at this wider scale at this distance from station, only skyline landmarks & landforms relevant.	L. Change in wider landscape in very limited area. From A9(T) beside station asset not a visible part of landscape.	L. Only highest part of roof may be visible. From A9(T) beside station asset not visible.	Minor	Minor	LV2 & 3; LV7 & 9	None

		A	B	C	D	E	F	G	H	I
Site	**Name** **Type** **Distance from Site**	**Importance of site (per Appendix 11-B)**	**Current Landscape Sensitivity of setting**	**Current Visual Sensitivity of setting**	**Magnitude of landscape change from development**	**Magnitude of visual change from development**	**Significance of Pre-Mitigation Impact on setting** As table 11.8 (Based on columns B through E)	**Importance of Pre-Mitigation Setting Impacts** As table 11.9 (based on columns A and F)	**Mitigation commitments**	**Significance of Residual Impact (Post Mitigation)**
338	Buaile Oscar Chambered Cairn, 9.3km	High	Mod. High closer to the asset, but though commanding position in landscape part of nature of the site & setting, in wider landscape as at this distance from station, only dominant or high landmarks & landforms relevant.	Mod. Though commanding views from & views to it part of nature of the site & setting, at this wider scale at this distance from station, only dominant or high landmarks & landforms relevant.	L. Change in wider landscape in very limited area. From A9(T) beside station asset, only visible as tiny lump to trained eye, still commands landscape because station set in dip.	L. Change in wider view in very limited area. Viewed from asset, station unlikely to be noted. From A9(T) beside station asset too small to be visible.	Minor	Minor	LV2 & 3; LV7 & 9	Negligible / None

[1] Wording of relevant mitigation measures repeated below. See also Annex II.

LV2: The colour scheme for the building will aim to make the development visually recessive and to break up the apparent bulk of the structure, potentially by using varying hues or colours on different building elements.

LV3: The colours selected will be agreed with The Highland Council and be designed to minimise visual contrast with the landscape backdrop. Preliminary consideration of the local landscape suggests that colours are likely to be selected from the range RAL 6003 to 6013, potentially with some detail elements from the range RAL 8000 to 8004.

LV7: The existing shelterbelt will be retained and managed as a long-term visual screen to the development.

LV9: The shelterbelt will be reinforced with the planting of a parallel belt of woodland to the north. This will be a mixture of native deciduous and appropriate evergreen species to provide a more natural woodland edge whilst maintaining effective screening.

Appendix 11-D
Archaeological and Cultural Heritage Visualisations

Archaeological and Cultural Heritage Visualisations

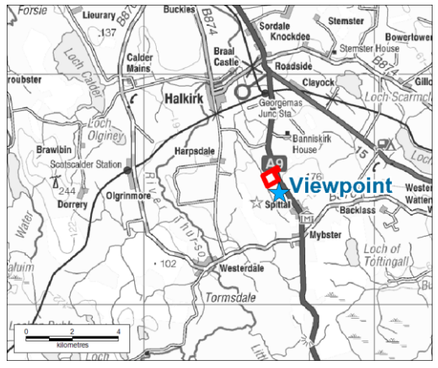

Plate 11.3a Existing view north west from St Magnus' church, burial ground and hospital, Scheduled Ancient Monument (SAM), showing development site

Plate 11.3b Existing view to the north east from St Magnus' church, burial ground and hospital (SAM)

Taken at 1.8m high, F35.

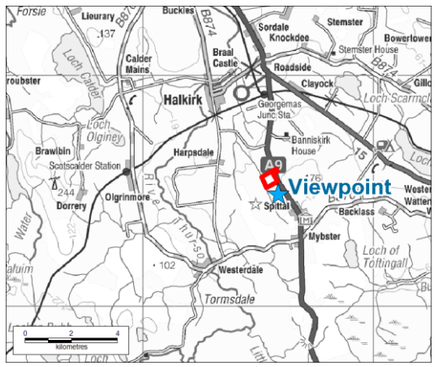

Plate 11.4 View south from St Magnus' church, burial ground and hospital (SAM) with Spittal Mains Farm, Causeymire Wind Farm and 132kV overhead line in view

Taken at 1.8m high, F35.

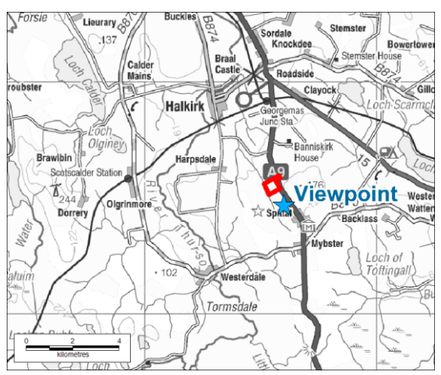

Plate 11.5 Existing view from Spittal Mains Farm with St Magnus' church, burial ground and hospital (SAM) in the foreground

Taken with a Pentax k7 DSLR using a 35mm prime lens (equivalent to 53mm lens on a 35mm film camera). Image width 37 degrees.

16th October 2010. Eye height 1.5m. Approximate distance to development 750m.

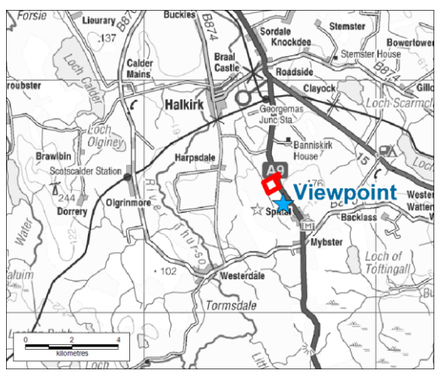

Plate 11.6 Visualisation from Spittal Mains Farm with St Magnus' church, burial ground and hospital (SAM) in the foreground, with development and no mitigation

Taken with a Pentax k7 DSLR using a 35mm prime lens (equivalent to 53mm lens on a 35mm film camera). Image width 37 degrees.

16th October 2010. Eye height 1.5m. Approximate distance to development 750m.

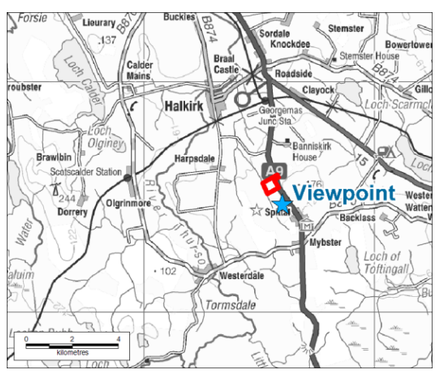

Plate 11.7 Visualisation from Spittal Mains Farm with St Magnus' church, burial ground and hospital (SAM) in the foreground, with development, landscaping and planting mitigation after 15 years

Taken with a Pentax k7 DSLR using a 35mm prime lens (equivalent to 53mm lens on a 35mm film camera). Image width 37 degrees.

16th October 2010. Eye height 1.5m. Approximate distance to development 750m.

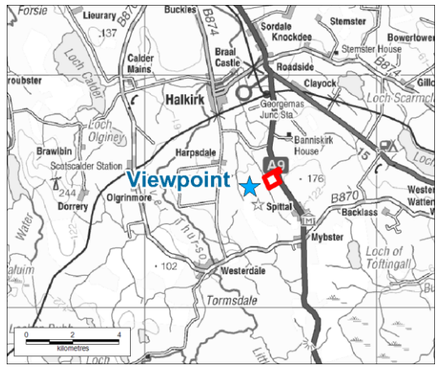

Plate 11.8 View from The Shean (SAM), east to converter station site

Taken at 1.8m high, F50.