

CFA Archaeology Ltd

archaeological consultants

Advice on Archaeology & Planning

Environmental Impact Assessment

Interpretation, Design & Display

Finds/ Environmental Analysis

Field Evaluation & Excavation

Historic Building Recording

Site & Landscape Survey

Geophysical Survey

Talladh a Bheithe Wind Farm

Cultural Heritage

 0131 273 4380

 0131 273 4381

 info@cfa-archaeology.co.uk

 www.cfa-archaeology.co.uk

CFA ARCHAEOLOGY LTD

The Old Engine House
Eskmills Business Park
Musselburgh
East Lothian
EH21 7PQ

Tel: 0131 273 4380

Fax: 0131 273 4381

email: info@cfa-archaeology.co.uk

web: www.cfa-archaeology.co.uk

Author	Hélène Gray MA (hons) ACIfA
Illustrator	Shelly Werner BA MPhil PhD MCIfA
Editor	George Mudie FSA Scot, MCIfA
Commissioned by	Jones Lang La Salle
Date issued	September 2013
OASIS Reference	cfaarcha1-264574
Grid Ref	NN 532 632

This document has been prepared in accordance with CFA Archaeology Ltd
standard operating procedures.

Talladh a Bheithe Wind Farm

Cultural Heritage

10 Historic Environment

10.1 Introduction

10.1.1 This chapter considers the potential impacts of the proposed wind farm on the historic environment (archaeology and built heritage, referred to hereafter in the main text as heritage assets). It details the results of a desk-based assessment and reconnaissance field survey carried out for the site (Figure 10.1). The assessment was undertaken by CFA Archaeology Ltd, using information provided by Historic Scotland (HS), and by Perth and Kinross Council (PKC) and Perth and Kinross Heritage Trust (PKHT).

10.1.2 This assessment was conducted in accordance with the Institute for Archaeologists Code of Conduct (2013¹), and Standard and Guidance for Historic Environment Desk-based Assessment (2012²) and Field Evaluations (2013³).

10.1.3 The specific objectives of the study were to:

- identify the historic environment baseline within and in the vicinity of the site;
- assess the site in terms of its archaeological potential;
- consider the potential and predicted impacts of the construction, operation and decommissioning of the proposed wind farm on the baseline historic environment, within the context of relevant legislation and planning guidance;
- propose measures, where appropriate, to mitigate any significant adverse impacts; and
- consider potential for cumulative impacts of the proposed wind farm in combination with other existing or proposed wind farms, upon the historic environment.

10.1.4 In order to achieve these objectives the following approach was used to reflect the varying nature of possible effects on heritage assets which could result from the proposed wind farm.

- The potential for direct impacts upon heritage assets has been considered within the site, as illustrated on Figure 10.1. This figure also shows the layout of the proposed wind farm. A gazetteer of the heritage assets identified within the site is provided in Appendix 10.1; and
- The consideration of potential indirect impacts upon the setting of cultural heritage assets (including cumulative impacts) uses a 10km radius study area (extending from the outermost turbines of the proposed wind farm). Figure 10.2 shows the proposed wind farm, together with its zone of theoretical visibility (ZTV), and the location of heritage assets within the 10km radius which have a theoretical view of the turbines (three heritage assets from which there is no theoretical visibility are included on Figure 10.2 as they were specifically identified by Historic Scotland and PKHT as requiring assessment for impacts on their settings). A list of these heritage assets is provided in Appendix 10.2. Consideration of Category C Listed Buildings was restricted to those within a 5km study radius, as these buildings are generally minor vernacular building types of the local historic environment, with localised settings that would not be affected by the presence of the proposed wind farm in distant views.

10.2 Planning and Legislation Background

¹ IfA (2013) 'By-Laws: Code of Conduct', Institute for Archaeologists

² IfA (2012) 'Standard and guidance for historic environment desk-based assessment', Institute for Archaeologists.

³ IfA (2013) 'Standard and guidance for archaeological field evaluation', Institute for Archaeologists.

10.2.1 Chapter 6: Planning and Policy Context sets out the planning policy framework that is relevant to the EIA. The policies set out include those from the TAYplan (the Strategic Development Plan), the Highland Area Local Development Plan, Scottish Planning Policy (SPP), Planning Advice Notes and other relevant guidance. Of relevance to the historic environment assessment presented within this chapter, regard has been had to the following policies:

- National Planning Framework 2 (NPF2)
- Scottish Historic Environment Policy (SHEP)
- Scottish Planning Policy (SPP)
- Planning Advice Note 2/2011
- TAYplan Strategic Development Plan 2012-2032
- The Highland Area Local Plan 2000

10.3 Issues Identified During Consultation

10.3.1 A formal request for a Scoping Opinion, identifying the key aspects to be taken into account in the Environmental Statement was submitted to the Scottish Government in 2011. The Scoping Opinion contained (in Section 8.5 - Archaeology and Cultural Heritage) advice relating to the historic environment.

10.3.2 Subsequent to receipt of the formal Scoping Opinion from the Scottish Government, a provisional list of heritage assets that would be assessed using visualisations was sent to Historic Scotland and to Perth and Kinross Heritage Trust (PKHT) on 04/07/2013 for their consideration and agreement.

Consultation identified several heritage assets which required particular consideration; these are shown on Figure 10.2 and visualisations were used to aid in the assessment of the potential indirect impacts upon the settings of these assets. The visualisations are presented as Viewpoints 2, 4, 16 and 17 (Figures 7.26, 7.28, 7.40 and 7.41 in the LVIA Assessment).

Table 10.1: Issues identified during consultation

Consultee	Scoping / Other Consultation	Issue Raised	Response / Action Taken
Scottish Government	Formal Scoping (undated)	The EIA should address the predicted impacts on the historic environment and describe the mitigation proposed to avoid or reduce impacts to a level where they are not significant. Historic environment issues should be taken into consideration from the start of the site selection process and as part of the alternatives considered.	Noted. See 'Impact Assessment' section (Section 10.6)
HS	Formal Scoping (undated)	Direct and indirect impacts should be assessed.	Noted. See 'Impact Assessment' section (Section 10.6)
HS	Formal Scoping (undated)	Noted that the scoping exercise has already identified a number of heritage assets, including the category A listed Grampian Hydro Electric Scheme (Rannoch Power Station) (HB Num 51716) which is located within the estate,	Noted. See 'Impact Assessment' section (Section 10.6) and ZTV Figure 10.2

as well as more distant assets including the Corrour Lodge Inventory historic gardens and designed landscape and the scheduled monument termed Clach na Boile, standing stone (Index No. 1516).

HS	Formal Scoping (undated)	Requested that wireframes and / or photomontages be provided in the ES to assess indirect impacts. Requested that these present views looking from the asset towards the development proposal, and views looking towards the asset within its landscape setting with development in the background.	Noted. See LVIA Figures 7.26, 7.28, 7.40 and 7.41, VP's 2, 4, 16 and 17)
HS	Formal Scoping (undated)	Requested that the cumulative impact of this development proposal on the historic environment in combination with other proposed and consented schemes be assessed.	Noted. See 'Impact Assessment' section (Section 10.6)
HS	Letter response (29/07/2013): Further consultation by CFA	Content with a 10km search radius to identify heritage assets to be assessed for impacts on their settings.	Noted. See ZTV Figure 10.2.
HS	Letter response (29/07/2013): Further consultation by CFA	Content with the suggested list of visualisation viewpoints.	Noted.
HS	Letter response (29/07/2013): Further consultation by CFA	Requested that the assessment consider the potential for turbines to be visible in views of Rannoch Power Station (HBNUM 51716).	Noted. See 'Impact Assessment' section (Section 10.6) and Figure 7.40 LVIA VP 16.
Perth and Kinross Council (PKC)	Formal Scoping (02/02/2012)	Identified Rannoch Power Station (category A); Rannoch Lodge (category B); Braes of Rannoch Parish Church (category B); and Eilean nam Faoileag, with crannog and 19th Century tower (tower category B listed) as sensitive heritage asset viewpoints.	Noted. See 'Impact Assessment' section (Section 10.6) and ZTV Figure 10.2. Rannoch Power Station and Eilean nam Faoileag are not within ZTV but are included in the assessment.
Perth and Kinross Heritage Trust (PKHT)	Email response (23/07/2013): Further consultation by CFA	Content with a 10km search radius to identify heritage assets to be assessed for impacts on their settings.	Noted. See ZTV Figure 10.2.

10.4 Assessment Methodology

Baseline Characterisation

Desk-based Assessment

10.4.1 Up-to-date information was obtained from appropriate sources on the locations of heritage assets with statutory protection and non-statutory designations both within the site and within 10km of the outermost turbines of the proposed wind farm.

- Details of the locations and extents of Scheduled Monuments, Listed Buildings, Conservation Areas, Inventory Gardens and Designed Landscapes and Inventory Historic Battlefields were downloaded in GIS from the Historic Scotland Spatial Data Warehouse (Historic Scotland 2013⁴). Additional information on known archaeological sites and features within the site was provided by the PKC Historic Environment Record (HER).
- Information on the character and condition of known heritage assets within the site was obtained from Canmore (RCAHMS 2013⁵): the Royal Commission on the Ancient and Historic Monuments of Scotland (RCAHMS) on-line database.
- Ordnance Survey maps (1st and 2nd Edition maps) and other historic maps held by the Map Library of the National Library of Scotland were examined, to provide information on features of potential archaeological significance and on historic land-use development.
- An assessment was made of vertical aerial photograph collections held by RCAHMS. Sorties dating from 1946 and 1948 were examined. In addition, modern aerial photography images (GoogleEarth™; Bing™) were examined.
- The online Historic Land-Use Assessment Data for Scotland (HLAMap) (RCAHMS 2013⁶), maintained by the RCAHMS, was consulted for information on the historic land use character of the site.
- The Scottish Palaeoecological Archive Database (SPAD) (Coles et al 1998⁷) which records the distribution of known raised bog and wetland sites across Scotland was consulted for information on sites with palaeoenvironmental potential within or adjacent to the site. There were no entries relevant to this assessment.

Field Survey

10.4.2 A reconnaissance walk-over field survey of the site was carried out in July 2013, with the following aims:

- to assess the present baseline condition of the known heritage assets identified through the desk-based assessment;
- to locate and record any further features of historic environment interest not identified through the desk-based assessment; and
- to assess ground conditions across the site, and to assess the potential for the survival of currently unrecorded, buried archaeological remains.

10.4.3 The baseline condition of identified heritage assets was recorded on pro-forma monument recording forms and by digital photography, and their positions (and where appropriate their extents) were logged using a Global

⁴ Historic Scotland (2012) GIS downloaded, available at <http://hsewsf.sedsh.gov.uk/gisdl.html> (accessed in Aug 2013).

⁵ RCAHMS (2013) Royal Commission of Ancient and Historic Monuments Database (Canmore) available from: <http://jura.rcahms.gov.uk/PASTMAP/start.jsp> (accessed Aug 2013).

⁶ RCAHMS (2012) Historic Land-use Assessment for Scotland (HLAMap) available from: <http://rcahms.gov.uk> (accessed Aug 2013)

⁷ Coles, G.M., Gittings, B.M., Milburn, P. and Newton, A.J. (1998) Scottish Palaeoecological Archive Database available from: <http://www.geo.ed.ac.uk/spad> (accessed December 2012).

Positioning System (GPS) accurate to around 0.6m-1.2m. Heritage assets were recorded either as point locations (given for individual features such as shieling huts and sheepfolds) or as linear elements (for trackways and field boundaries). No intrusive archaeological interventions have been carried out as part of this assessment.

10.4.4 Site visits to heritage assets within a 10km radius of the proposed wind farm (as shown on Figure 10.2 and listed in Appendix 10.2) were also carried out in July 2013, in order to assess the character and sensitivity of their settings. The site visits focused on those heritage assets most likely to receive significant effects on their settings (i.e. those closest to the proposed wind farm and those considered, on preliminary analysis, to potentially be the most sensitive to changes within their settings). Factors considered in the assessment of setting undertaken during the field visit include:

- the location and orientation of the asset;
- important views of, or from, heritage assets (including of or from the principal façades of Listed Buildings);
- the importance, if applicable, of designed settings; and
- any obvious views or vistas.

Identification of Heritage Assets whose Settings might be Impacted by the Proposed Wind Farm and Characterisation of their Setting

10.4.5 Historic Scotland's guidance document, 'Managing Change in the Historic Environment: Setting' (Historic Scotland 2010⁸), notes that: *"setting should be thought of as the way in which the surroundings of a historic asset or place 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"*. The guidance also suggests that if a proposed development is likely to impact on the setting of a heritage asset, an objective written assessment should be prepared by the applicant to inform the decision-making process. The conclusions drawn should take into account the significance of the heritage asset and its setting and attempt to quantify the extent of any detrimental impact. The methodology and level of information should be tailored to the circumstances of each case.

10.4.6 The baseline setting of each relevant heritage asset or related group of assets is characterised on a case-by-case basis. Characterisation of setting of an asset is based upon its properties and location, and takes into account the factors identified in the guidance issued by Historic Scotland. The baseline setting of each asset is characterised principally in terms of the:

- archaeological / historical context of the asset;
- current landscape and visual surroundings of the asset;
- aesthetic and experiential properties of the asset within its surrounding; and
- social value (actual or potential) of the asset as a recreational / leisure or education resource.

Method of Assessment

10.4.7 The importance of cultural heritage assets (Table 10.2) has been determined from the relative weight given to them in SPP and SHEP.

⁸ Historic Scotland (2010) 'Managing Change in the Historic Environment: Setting', Edinburgh

Table 10.2: Importance of Historic Environment Assets

Heritage Importance	Definition / Criteria
National / International	Heritage assets of national or international importance, including: <ul style="list-style-type: none"> • World Heritage Sites • Scheduled Monuments and sites proposed for scheduling • Category A Listed Buildings • Inventory Gardens and Designed Landscapes • Inventory Historic Battlefields
Regional	Heritage assets of regional importance, including: <ul style="list-style-type: none"> • Archaeological sites and areas of distinctive regional importance • Category B Listed Buildings • Conservation Areas
Local	Heritage assets of local importance, including: <ul style="list-style-type: none"> • Category C Listed Buildings • Unlisted historic buildings and townscapes with local (vernacular) characteristics
Lesser	Other heritage assets, including: <ul style="list-style-type: none"> • Find spots • Unlisted buildings of minor historic or architectural interest • Poorly preserved examples of particular types of features

Assessment of Direct Impacts (Construction Impacts)

10.4.8 Criteria for assessing magnitude of direct impacts, which measures the degree of change to the baseline condition of a heritage asset that would result from the construction of one or more elements of the proposed wind farm, are presented in Table 10.3.

Table 10.3: Magnitude of Direct Impacts

Level of Magnitude	Definition
High	A fundamental change to the baseline condition of the asset, leading to total or major alteration of character.
Medium	A material, partial alteration of character.
Low	Slight, detectable alteration of the baseline condition of the asset.
Imperceptible	A barely distinguishable change from baseline conditions.

10.4.9 The relative importance of the asset (Table 10.2) and the magnitude of the predicted impact (Table 10.3) are then used along with professional judgement to inform the assessment of the likely significance of the direct impact. Table 10.4 summarises the criteria for assigning significance of a direct impact.

10.4.10 Major and moderate impacts are considered to be 'significant' in the context of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000⁹ and Amendment Regulations 2008¹⁰. Minor and negligible impacts are not significant.

Table 10.4: Significance of Direct Impacts (Construction Impacts)

Magnitude of	Heritage Importance of Asset ►
--------------	--------------------------------

⁹ Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000

¹⁰ Electricity Works (Environmental Impact Assessment) (Scotland) Amendment Regulations 2008

Impact▼	National	Regional	Local	Lesser
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Imperceptible	Minor	Negligible	Negligible	Negligible

Assessment of Impacts on Setting (Operational Impacts)

10.4.11 For each heritage asset where a potential impact on setting has been identified, the assessment of possible impacts adopts a four-stage approach:

- identification of the characteristics of the setting of the asset (see paragraph 10.43);
- assessment of the sensitivity of that setting;
- identification of how the presence of the proposed wind farm would affect that setting (magnitude of impact); and
- assessment of the significance of the impact.

Criteria for Assessing Sensitivity of Setting

10.4.12 Sensitivity of setting has been assessed by considering two factors:

- the relative weight which statute and policy attach to the asset and its setting (Table 10.2); and
- the degree to which the baseline setting contributes to the understanding and / or appreciation, and hence value, of the asset (Table 10.5).

Table 10.5: Contribution of Setting to Understanding and Appreciation of a Heritage Asset

Contribution	Definition
High	A setting which makes a strong positive contribution to the understanding and / or appreciation of the siting and / or historical / archaeological / architectural context of an asset. (E.g. a prominent topographic location; surroundings that include related monuments in close association; surroundings that are believed to be little changed from those when the asset was created).
Moderate	A setting which makes some positive contribution to the understanding and/or appreciation of the siting and/or historical/archaeological/architectural context of an asset. (E.g. surroundings that complement the siting and appearance of an asset, such as the presence of a feature of the rural past within a more recent farming landscape containing little or no urban or industrial development).
Low	A setting which makes little positive contribution to the understanding and/or appreciation of the siting and/or historical/archaeological/architectural context of an asset. (E.g. where surroundings only partially complement the siting and appearance of an asset, such as the presence of a feature of the rural past within a partly urbanised or industrialised landscape).
Negligible	A setting which does not contribute positively to the understanding and/or appreciation of the siting and/or historical/archaeological/architectural context of an asset. (E.g. immediate surroundings of, such as, commercial coniferous single species woodland or an industrial development that is not relevant to understanding the context of the asset).

10.4.13 These two sets of criteria (Tables 10.2 and 10.5) are combined to assess the overall sensitivity of a setting, as set out in Table 10.6.

Table 10.6: Sensitivity of Setting of a Heritage Asset

Heritage Importance ▼	Contribution of Setting to Value of Heritage Asset ►			
	High	Moderate	Low	Negligible
National / International	High	Medium	Medium	Low
Regional	Medium	Medium	Low	Low
Local	Medium	Low	Low	Low

Identification of Magnitude of Impact on Setting

10.4.14 Where it has been determined that the setting of an asset is such that there is no potential for it to be affected by the presence of the proposed wind farm (including all assets of lesser cultural heritage importance) the asset is not considered further in the assessment. For the remaining assets, the magnitude of impact on setting was assessed according to the thresholds set out in Table 10.7.

Table 10.7: Magnitude of Impact on Setting

Level of Magnitude	Definition
High	Fundamental effects obviously changing the surroundings of an asset, such that its baseline setting is substantially or totally altered.
Medium	Effects discernibly changing the surroundings of an asset, such that its baseline setting is partly altered.
Low	Slight, but detectable effects that do not alter the baseline setting of the asset materially.
Imperceptible	A very slight and barely distinguishable change from baseline conditions.

Assessment of Impact Significance

10.4.15 The significance of an impact on setting depends on both the magnitude of impact and the sensitivity of the setting of the asset. Table 10.8 presents the matrix that has been used to inform the determination of the significance of impacts on setting.

Table 10.8: Significance of Impacts on Setting

Magnitude of Impact ▼	Sensitivity of Setting ►		
	High	Medium	Low
High	Major	Moderate	Moderate
Medium	Moderate	Moderate	Minor
Low	Minor ¹¹	Minor	Negligible
Imperceptible	Negligible	Negligible	Negligible

¹¹ A non-material change to baseline conditions cannot by its nature lead to a significant effect. A significant effect arises from a material change to baseline conditions. This distinction explains why this particular assessment finding is 'minor' significance and not 'moderate'.

10.4.16 Major and moderate impacts are considered to be 'significant' in the context of the Electricity Works Regulations. Minor and negligible impacts are not significant.

Cumulative Assessment

10.4.17 The assessment of cumulative effects on the historic environment is based upon consideration of the effects of the proposed wind farm on the settings of heritage assets with statutory and non-statutory designations within 10km of the proposed wind farm in addition to the likely effects of other operational, consented and proposed wind farm (at the application stage). The assessment takes into account the relative scales (i.e. size and number of turbines), of the various developments, their distances from the affected assets, and the potential degree of visibility from the assets of the various developments. The criteria adopted above in respect of effects on setting were employed to determine the magnitude and significance of the predicted cumulative effects.

10.4.18 LVIA Figure 7.2 shows the s wind farm, and the location of other wind energy developments that are within 70km of the proposed wind farm. There are no other wind farms either operational or consented within 35km of the proposed wind farm. The closest operational or consented wind farms are those at Calliachar in Perth and Kinross, 40km to the southeast, and Stronelairg, 40km to the north. The closest proposed wind farms, North Calliachar (at the application stage), Crossburns (at the scoping stage) and Dell (at the scoping stage), also all lie at 35km or beyond, to the north and southeast respectively. There would be no cumulative impact on historic environment interest from the proposed wind farm in combination with other wind farms (operational, consented or proposed) and cumulative assessment is therefore Scoped Out of the assessment.

Micrositing Allowance

10.4.19 It should be noted that the layout of the turbines, and hence tracks and cables, would be subject to 50m micrositing allowance in all directions. The assessment of impacts presented within this chapter has been based upon the layout defined in Chapter 4: Description of Development, and shown along with identified heritage assets on Figure 10.2. Any micrositing changes would respect the exclusion zones defined within this chapter (shown on Figure 10.2) such that no infrastructure would be moved to the extent that impacts would be any greater than those reported in this chapter.

10.5 Baseline Conditions

10.5.1 The locations and extents of heritage assets identified within the site are shown on Figure 10.1, and detailed information on their character and baseline condition is provided in Appendix 10.1. Numbers in brackets in the following text refer to asset numbers shown on Figure 10.1 and described in Appendix 10.1.

General

10.5.2 The site lies on high ground to the north of Loch Rannoch, taking in the summits of Meall Garbh, Sron Bheag and Meall Ban. The proposed site access road follows an existing made road that runs from Bridge of Ericht to the dam at the south end of Loch Ericht. The site is predominantly maintained as unimproved heather moorland in use as a sports shooting estate, and a large swathe of commercial forestry plantation (Dalanese Wood) borders the west side of the site access route.

10.5.3 There are no Scheduled Monuments and no Listed Buildings within the site, and no part of the site lies within a Conservation Area or Inventory Garden and Designed Landscape. There are no historic battlefields within the site.

Settlement Remains

10.5.4 The PKC HER and Canmore record two groups of former shieling huts (1 and 2) present on the higher slopes of Meall Garbh and these locations (annotated 'ruins'), are depicted on the Ordnance Survey 1st Edition map¹² next to the main watercourses, Allt a' Choire Odhair Bhig and the Allt Caochan an t-Seilich. At least 44 structures, in varying conditions, were identified by the present study around or close to these watercourses and at around 450m AOD (Above Ordnance Datum). Each of the two main groups (1 and 2) is separated into two sub groups (1a & 1b and 2a & 2b). The majority of the structures identified (35 in total) survive along or close to the Allt a' Choire Odhair Bhig (1a-b).

10.5.5 Many of the structures surviving at Allt a' Choire Odhair Bhig (1a-b) are small sub-rectangular or sub-oval structures, ranging in size from 3m to 4m wide and 4m to 5m long (Plate 10.1). They are either situated on small knolls or on higher dry slopes overlooking the burns; the majority defined by well-preserved footings or lower courses of drystone walls, ranging in height from 0.2m to 0.8m high. A small number of structures are defined by fragmentary and vestigial remains of turf banks enclosing small terraces. In addition to these, the upstanding remains of at least three, larger drystone walled rectangular buildings (Plate 10.2) were identified. These range in size from 6m to 7m long by 4m to 6.5m wide; the walls preserved to a height of 0.4m to 0.6m.

10.5.6 Alongside these buildings are several smaller structures, including small circular dry-stone walled buildings, no more than 2.5m in diameter (Plate 10.3), the best-preserved standing to a height of 0.8m; and the poorly preserved remains of two possible sunken floored buildings (Plate 10.4), measuring 3m to 4m long and 3m to 3.5m wide.

10.5.7 One of the largest buildings recorded in the area is an unusual 'boat-shaped' structure (Plate 10.5) comprising at least two compartments and standing adjacent to an old trackway (3).

10.5.8 The well-preserved remains of a large, dry-stone building (1c) (Plate 10.6) were found set slightly apart from the main group of structures (1b) in this area. This more substantial building comprises a sub-rectangular building standing in a sheltered spot at the base of a natural bedrock outcrop. The remains of a later, small circular structure were recorded overlying the remains of the rectangular building, apparently representing two building phases. It may be that the later, circular structure is a shooting butt built into and from the convenient stone of the earlier building.

10.5.9 A little over 1km to the southeast of Site 1 there is a second group of at least eight structures spread along a tributary stream feeding into the Allt Caochan an t-Seilich (2a-b). In most cases the buildings here survive only as low-relief turf banks (Plate 10.7); although the poorly preserved footings of three dry-stone built buildings also survive. One of these dry-stone built structures was recorded as having a slightly sunken floor dug into a terrace.

10.5.10 A short distance to the north of the structures at Allt Caocahn an t-Seilich (2a-b) the poorly preserved remains of at least one additional building (4) (Plate 10.8) lie adjacent to an unnamed tributary of the Allt Caochan an t-Seilich and alongside an old trackway (3). This structure is depicted on the Ordnance Survey 2nd Edition map¹³

¹² Ordnance Survey 1st Edition map (1867) Perthshire, Sheet XXVII, 6 inches to 1 mile.

¹³ Ordnance Survey 2nd Edition map (1900) Perthshire, Sheet XXVII.NE, 6 inches to 1 mile.

as unroofed, suggesting that it had been abandoned by this date. The building was rectangular in plan and is now defined by the remains of a turf and stone bank covered in dense heather. What may be the remnants of another structure (possibly an enclosure attached to the south of the building), defined by the vestigial remains of a turf bank were noted in dense heather on the opposite side of the trackway.

- 10.5.11 The Ordnance Survey 1st Edition (1867¹⁴) map shows the groups of shielings (1 and 2) linked by a trackway (3), which runs from the former townships at 'Baile na Creige' and 'Learan' on the Loch Rannoch shoreline northwards, past the shielings, and ending abruptly at Allt an Luib Bhain. Some intermittent traces of this trackway, visible as a slight variation in vegetation cover (Plate 10.9) still survive today crossing the moorland.
- 10.5.12 Shielings, such as those recorded here, were occupied during the summer months when the animals were taken from the in-fields beside the townships to upland grazing pastures. They are usually considered to be of medieval or later date, although some excavated examples have been demonstrated to have prehistoric origins (Gilmour & Church 2002¹⁵, Carter et al 2005¹⁶). Improved farming practices in the 18th and 19th century effectively ended the customary use of the shielings.
- 10.5.13 The varied state of preservation of the buildings, the presence of many different building types and construction methods, and some evidence to suggest that some of the structures overlie others, is indicative of an extended period of use for these structures and these locations as summer pasturage. Taking this into consideration the two shieling groups recorded here are considered to be of regional heritage importance.
- 10.5.14 The poorly preserved remains, 4m by 3m and up to 0.2m high, of what may be another, isolated, structure (5) were identified on an upper slope of Meall Garbh, comprising a scatter stones covered in dense vegetation. These remains stand in a position that would not be unusual for a shieling hut; however, it would require further investigation to confirm this. On the basis of present knowledge of its baseline character it is considered that this small isolated example is of unknown (but no more than local) importance.
- 10.5.15 An unnamed settlement (8) is depicted on Roy's Military Survey Map (1747-55¹⁷) at the mouth of the River Ericht on the north shore of Loch Rannoch. The same settlement is shown on both Thomson's map, of 1832¹⁸, and the Ordnance Survey 1st Edition map (1867), annotated as 'Cul a' Mhuilinn' (translated as 'behind the mill') and comprising three houses. The houses still stand today within Bridge of Ericht village. They are occupied dwelling houses of local heritage importance.

Miscellaneous

- 10.5.16 The remains of two large concrete platforms (7a-b) were recorded on either side of the existing made road running from Bridge of Ericht to the dam at the south end of Loch Ericht. These are probably remnants associated with the construction of Rannoch Power Station (1931-33). They are of recent date and of lesser heritage importance.

¹⁴ Ordnance Survey 1st Edition map (1867) Perthshire, Sheets XXVII and XXXVI, 6 inches to 1 mile.

¹⁵ Gilmour, S & Church, M (2002) 'On the edge of the earth? Recent research in Uig, Lewis', Scottish Archaeological News 38, 20002, 6-7.

¹⁶ Carter, S Dalland, M Long, D & Barrie, D (2005) 'Early land-use and development in Arisaig', Scottish Archaeological Internet Report (SAIR) Report 15, 2005.

¹⁷ Roy, W (1747-55) Military Survey of Scotland.

¹⁸ Thomson, J (1827) Perthshire and Clackmannan.

10.5.17 Field survey recorded a short length of former trackway (6) running parallel with the modern made road from Bridge of Ericht to the dam at the south end of Loch Ericht. It is probably a remnant of an earlier trackway on the same alignment that is shown on the Ordnance Survey 1st Edition map (1867¹⁹) running from 'Ardlarach' farm, on the north shore of Loch Rannoch, to an area of peat cutting close to Creag an Fhithich, to the east of River Ericht. No other sections of the former trackway survive having probably been replaced by the later road. The surviving section of trackway is of lesser heritage importance.

Archaeological Potential of the site

10.5.18 The site ranges in altitude from 250m AOD, near Bridge of Ericht at the southern end of the site access road, to 500m AOD at the summit of Meall Garbh, at the northern edge of the site. A large swathe of commercial forestry plantation lies to the west side of the proposed site access road and western boundary of the site, and there is a small block of commercial forestry just west of Meall Garbh, within the site. The land-use across the site comprises predominantly unmodified heather moorland, while the proposed site access road follows the route of an existing made road running from Bridge of Ericht to the dam at the southern end of Loch Ericht. Occupation evidence on the site is restricted to the identified remains of shieling huts.

10.5.19 There is no record of any prehistoric remains being found within the site. However, the remains of a probable Iron Age fort have been identified at Creag an Fhithich (RCAHMS no NN56SW 3), on the east banks of River Ericht around 2km to the southeast of the site and alongside the site access road, and a hammerstone (RCAHMS no NN54 NW 6) was found in the 1960s at Killichonan, approximately 3.5km to the south of the site. These occasional finds attest to some later prehistoric activity in the wider area, although settlement and occupation would most likely be restricted to lower altitudes and close proximity to watercourses, such as the River Ericht. It is very unlikely that any significant prehistoric archaeological remains would be found at the altitudes at which the site lies.

10.5.20 Settlement in the wider area is evident from at least the 18th century, with townships depicted on Roy's Military Survey Map (1747-55) on the northern banks of Loch Rannoch and on the eastern shore of Loch Ericht. Two extensive and complex groups of shieling huts are present at around 450 AOD, spread along the dryer slopes and knolls either side of the Allt a' Choire Odhiar Bhig and the Allt Caochan an t-Seilich. Some of these structures are depicted as 'ruins' on the Ordnance Survey 1st Edition map suggesting that they may have been abandoned long before the mid-19th century. The RCAHMS database records several other shieling groups located next to the main water courses in the wider area, including at Allt a' Chaime Dhuibh (RCAHMS no: NN56 SE6) and Ruighe an T-Sithein (RCAHMS no: NN56 SE 3) approximately 2km to the southeast of the site, and Ruighe Na Beinne Boidhich (RCAHMS no: NN56SE 2) approximately 1km east and their presence indicates that the area was widely used for upland grazing from at least the medieval periods.

10.5.21 Taking into consideration the evidence for seasonal, pastoral settlement on the site, and the limited evidence for prehistoric settlement and activity in the wider landscape surrounding the site, it is considered that the potential of as yet undetected buried remains of prehistoric or later date to survive within the site is low to moderate. This potential is considered to be greatest along the watercourses within the site, namely the Allt a' Choire Odhiar Bhig and the Allt Caochan an t-Seilich and on the lower ground closer to the loch shore; the archaeological potential of the higher ground away from watercourses is assessed to be low in recognition of the high altitude of the site (above 400m). However, given the limited land take required by the proposed wind farm and the restricted locations for possible occupation evidence within the site (restricted to locations along watercourses) the

19 Ordnance Survey 1st Edition map (1867) Perthshire, Sheet XXVII, 6 inches to 1 mile.

probability of encountering hitherto undiscovered sites of archaeological importance during the course of construction works is considered to be low to negligible.

Key External Heritage Receptors

- 10.5.22 Within 5km of the centre of the proposed wind farm there is one Category A Listed Building, Rannoch Power Station (51716), and one Category B Listed Building, Rannoch Power Station valve house (51717); both lie approximately 4-5km to the south of the site, on the north shore of Loch Rannoch.
- 10.5.23 Between 5km and 10km of the centre of the proposed wind farm there are five Category B Listed Buildings, Loch Rannoch Tower (12241), approximately 5.5km to the south of the proposed wind farm, Rannoch Lodge (12239) and Rannoch Lodge Sundial (122440) both approximately 6.5km to the southwest, Bridge of Gaur (or Victoria Bridge) (12242) and Braes of Rannoch Parish Church (12243) both approximately 7km to the southwest, and Rannoch School Dall House (12244), approximately 9km to the southeast.
- 10.5.24 The closest scheduled monument with any predicted visibility of the proposed wind farm, Clach na Boile, standing stone (Index No. 1516), lies approximately 13km to the southeast. Corrour Lodge, the closest Inventory historic garden and designed landscape, lies 12km to the northwest and has no predicted visibility of the proposed wind farm.

10.6 Impact Assessment

- 10.6.1 The assessment of impacts is based upon the project description outlined in Chapter 3 : Description of Development, and is structured as follows:

- Construction impacts: direct impact on all heritage assets, either designated or non-designated within the site;
- Operation impacts: impacts on the setting of Scheduled Monuments, Listed Buildings, Conservation Areas, Inventory Gardens and Designed Landscapes that have been identified from the ZTV to have theoretical Intervisibility with the turbines; and
- Cumulative impacts: impacts on the settings of cultural heritage assets by the proposed wind farm in combination with other existing or proposed wind farms.

Construction Impacts

- 10.6.2 Any ground breaking activities with the construction of the proposed wind farm (such as those required for turbine bases and crane hardstandings, access tracks, cable routes, compounds, etc.) have the potential to disturb or destroy features of heritage interest. Other construction activities, such as vehicle movement, soil and overburden storage and landscaping also have the potential to cause direct, permanent and irreversible impacts on the heritage assets.
- 10.6.3 Using the criteria detailed in Tables 10.3 and 10.4, Table 10.9 summarises the predicted direct impacts on the heritage assets within the site. These impacts are discussed in more detail below the table.

Table 10.9: Predicted direct impacts on cultural heritage features within the Wind Farm Site

Site no	Site name/type	Heritage	Predicted impact	Magnitude of	Significance
---------	----------------	----------	------------------	--------------	--------------

		Importance		impact	of impact
3	Trackway	Lesser	Direct: Alignment of trackway crossed in three locations: by proposed access track and turbine base/crane pad for Turbine 10; and by access track to Turbines 24 and 25.	Low	Negligible

10.6.4 Only one heritage asset, a trackway (3), would undergo direct impacts as result of the construction of the proposed wind farm. The alignment of the trackway would be crossed in three locations by the proposed access track to Turbines 10, 24 and 25 and by Turbine 10 itself. This would result in the removal of small sections of the surviving trackway and the predicted direct impact is assessed as being of low magnitude and of negligible significance.

10.6.5 No other currently known heritage assets are predicted to undergo direct impacts as a result of the construction of the proposed wind farm.

10.6.6 There is some, limited, potential for direct impacts on any surviving buried remains in the vicinity of the shielings (1 and 2). The archaeological potential of the site is assessed to be low, on the basis of the high altitude of the site and the low density of identified heritage assets. The possibility of predicted direct impact on buried archaeology (potentially of no more than regional importance) is assessed as being of low magnitude and of minor significance.

Decommissioning Impacts

10.6.7 No significant impacts would occur during the decommissioning of the proposed wind farm assuming that the same road infrastructure is used for the dismantling and removal of the built features of the wind farm. The removal of the turbines would also have a beneficial effect, removing any adverse impacts of the proposed wind farm on the settings of affected heritage assets.

Operational Impacts

10.6.8 The assessment of operational impact on the settings of heritage assets has been based on the analysis of the blade tip and hub height ZTV's, taking into account the distance of the asset from the proposed wind farm, the number of blade tips and hubs theoretically visible and the present baseline setting of each asset. The ZTV models are, however, based on bare-earth surface topography and take no account of obstructions to intervisibility caused by existing forestry and other vegetation or buildings and other man-made features. Therefore, professional judgement, informed by the ZTV and visualisations, has been used to assess the significance of operational impacts on the settings of heritage assets.

- 10.6.9 Analysis of the ZTV indicates that there would be theoretical visibility of the turbines from five Category B Listed Buildings that lie within 10km of the outermost proposed turbines (Figure 10.2; Appendix 10.2). As the statutory consultees (HS and PKHT) have expressed contentment with the 10km search radius (Table 10.1) no heritage asset beyond that distance is assessed for impacts on its setting. Furthermore, no designated heritage asset beyond that distance has been identified from a sifting assessment of the blade tip ZTV to have any visibility of the proposed wind farm such that its setting could be significantly adversely affected.
- 10.6.10 Category A listed Rannoch Power Station (51716), and associated category B listed valve house (51717) have no predicted visibility of the proposed wind farm from their locations, but there is potential for both the Power Station buildings and the proposed wind farm to be seen in the same view from locations along the south shore of Loch Rannoch (Figure 10.2). Similarly, there is potential for category B listed Eilean nam Faoileag tower (12241) and the proposed wind farm to be seen in the same view from locations along the south shore of Loch Rannoch. The potential effects on the settings of these heritage assets have therefore been assessed, and the relationship between the buildings and the proposed wind farm are represented by photomontages from a viewpoint on the south shore of Loch Rannoch (Figure 7.16, LVIA VP 16) at Croiscrag.
- 10.6.11 Appendix 10.2 provides a summary assessment on a site by site basis of the predicted impacts on the settings of assets within a 10km radius and within the ZTV, together with those assets that fall outwith the ZTV but which have been assessed based on identification by the statutory consultees. Assets identified by the statutory consultees as requiring assessment of effects on their settings are discussed individually below.

Grampian Hydro Electric Scheme: Rannoch Power Station (HB Num 51716) and associated valve house (HB Num 51717)

- 10.6.12 Rannoch Power Station and associated valve house combine to constitute a category A group. The Power Station is category A listed; the Valve House is category B listed.
- 10.6.13 The Power Station, prominently sited on the shores of Loch Rannoch, adjacent to the B846 road, is an outstanding example of an early high-head hydroelectric scheme for public supply in Scotland. The design of the power house, in a simple classical style and with a bold outline, is in contrast to the setting against a tree-lined slope and loch. The valve-house, sited prominently on the hillside above the Power Station, exhibits a unified architectural treatment with the powerhouse clearly tying it in both functional and stylistic terms to the powerhouse. The architectural treatment of the Power Station is a fusion between the functional and industrial requirements of power generation with a classical modern design. The uncluttered rooflines give the buildings a stark and dominating profile. The two buildings, individually and as a group, encapsulate the forthright concept of modernity and progress which characterised the development of hydroelectricity in this period (1931-33) (extracted from the Scottish Ministers' Statutory List; HS 2011). The Power Station complex has a high social and experiential value due to its landscape setting, and the historical and architectural properties of the structures which form the Power Station complex. The Power Station is of national heritage importance, and is assessed as having a setting that provides a high contribution to its understanding and appreciation. The setting of the Power Station and valve house is therefore assessed to be of high sensitivity.
- 10.6.14 The Power Station and its associated structures do not have theoretical visibility as demonstrated by Figure 10.2, and as such, there would be no visibility of the proposed wind farm from the location of the Power Station itself. However, the prominent siting of the Power Station, back-dropped by the rising upland topography on which it stands, means the Power Station and valve house form a highly visible element of the local landscape, particularly when viewed from the minor roads following the northern and southern shores of Loch Rannoch.

10.6.15 The ZTV (Figure 10.2) indicates that there would be very little (if any) visibility of the proposed wind farm from the minor road running along the northern shore of the Loch, therefore close-up views of the Power Station with the proposed wind farm in the same view are unlikely from locations along the northern shoreline of the Loch. However, there is theoretical visibility of the proposed wind farm from the southern side of Loch Rannoch; the ZTV indicating that between one and six turbine blade tips would be visible from various locations along the shore line; although any such visibility would be limited. An LVIA viewpoint (Figure 7.16, VP 16), provides a representation of the views afforded of both the Power Station and the location of the proposed wind farm, from the southern side of the Loch (near Croiscrag). The photomontage shows that in this view, all but two of the proposed turbines would be hidden from view behind the rising topography which back-drops the Power Station and valve house; two turbine tips are shown to be theoretically visible but not in conjunction with the Power Station. From other locations along the southern side of Loch Rannoch (e.g. Figures 7.26 and 7.41, LVIA VP's 2 and 17), and from more distant locations (e.g. Figure 7.28, LVIA VP 4), the Power Station is less prominent or visible in the landscape, and views of the proposed wind farm would be partly screened by woodland and forestry, and / or are visible only in distant views, beyond the skyline, and topographically separated from the Power Station.

10.6.16 The introduction of the wind farm would constitute a slight detectable change to the setting of the Power Station and power house, but would have little discernable effect on the ability to appreciate the setting of the Power Station and valve house, particularly the relationship with the high ground which forms the immediate backdrop of the Power Station complex. Similarly, near views of the Power Station and valve house, in which the buildings are more prominent, would be little (if at all) affected. The impact of the development on the setting of Rannoch Power Station is assessed as being of no more than low magnitude and of minor significance (non-significant in EIA terms). The proposed wind farm would not affect an ability to understand and appreciate the character and architectural qualities of the Power Station and associated Valve House and their heritage value would remain undiminished.

Rannoch Lodge (HB Num 12239)

10.6.17 Rannoch Lodge is a two storey house dating originally from the mid 18th century but altered into a shooting lodge for Sir Robert Menzies between 1798 and 1803. The house lies close to the shoreline and the principal views are from the east-facing elevation looking out eastwards along the length of Loch Rannoch. The Lodge occupies a secluded setting being not readily visible from the B846 public road along the north side of the loch. It can be seen in some distant views from locations along the unclassified road along the south side, back-dropped by woodland and hills to the west. The Lodge has a relatively high social and experiential value due to its setting at the west end of Loch Rannoch and the historical and architectural properties of the building. The Lodge is of regional heritage importance, and is assessed as having a setting that provides a high contribution to its understanding and appreciation. The setting of the Lodge is therefore assessed to be of high, but localised, sensitivity.

10.6.18 The ZTV (Figure 10.2) indicates that between one and six turbine tips would theoretically be visible to the northeast of the Lodge from its immediate environs. A wireline representation of the visibility from a location to the southwest of the Lodge at the Bridge of Gaur (LVIA Figure 7.26, VP 2), shows that six turbine hubs would be visible from this location, above the horizon on the rising ground, behind and to the north of the Lodge. The accompanying photomontage shows, however, that the Lodge and the turbines would be largely screened from view by surrounding woodland, which would both inhibit clear views of the turbines from the Lodge itself, and screen the Lodge from more distant views of the turbines visible from the southern side of Loch Rannoch.

10.6.19 The setting of the Lodge is both secluded and localised, focused more towards Loch Rannoch and taking in views across the Loch to the east. The proposed wind farm would not be visible in these main eastwards facing views, or from within the more localised setting of the Lodge along the shores of the Loch. In addition, the Lodge is not a prominent feature of the local landscape, being largely screened from view by the presence of woodland surrounding much of the Lodge. The introduction of the wind farm would have little discernable effect on the ability to appreciate the localised and secluded setting of the Lodge, and would not affect the ability to appreciate the main eastwards facing views afforded from the Lodge itself. The impact of the development on the setting of Rannoch Lodge is assessed as being of imperceptible magnitude and of negligible significance (non-significant in EIA terms). The proposed wind farm would not affect an ability to understand and appreciate the character and architectural qualities of the Lodge and its heritage value would remain undiminished.

Eilean nam Faoileag Tower (HB Num 12241)

10.6.20 Eilean nam Faoileag is an island (former crannog) at the west end of Loch Rannoch, now supporting a small square tower. There are apparent references to occupation of the island from the middle of the 15th century until the middle of the 17th century; the present tower being a 19th-century folly (Canmore site reference NN55NW 3), said to be reconstruction of a small island prison of the Robertsons of Struan, and erected by Baron Grantly (extract from the Scottish Ministers' Statutory List; HS 1971).

10.6.21 The setting of the tower and former crannog is largely formed by Loch Rannoch itself, in particular this eastern end of the loch; although, the higher ground constituting the hinterland surrounding the Loch does contribute a minor element to this setting. The tower can be seen from the loch shore, notably from the B846 public road along the north side of the loch, but it is also visible, glimpsed between trees lining the loch shoreline, from the unclassified road along the south side, back-dropped by Rannoch Power Station and the hills to the north of the loch. The Tower has a high social and experiential value due to its setting within the loch, and its historical and architectural properties. The Tower is of regional heritage importance, and is assessed as having a setting that provides a high contribution to its understanding and appreciation. The setting of the Tower is therefore assessed to be of high sensitivity.

10.6.22 The location of the tower does not fall within the ZTV (Figure 10.2), and as such, there would be no predicted visibility of the proposed wind farm from the tower itself or from the island upon which it stands. Additionally, the proposed wind farm would not be visible in the same views as the tower when viewing the monument from the northern shores of Loch Rannoch. The ZTV (Figure 10.2) does however indicate that there would be theoretical visibility of the proposed wind farm (1-6 turbines) from the southern side of Loch Rannoch. An LVIA viewpoint (Figure 7.40, VP 16) provides a representation of the views afforded of the proposed wind farm, from the southern side of the Loch. The photomontage shows that from this location all of the proposed turbines would be hidden from view behind the rising topography which backdrops the tower, and views of the tower when looking in this direction. Photomontages taken from other locations along the southern side of Loch Rannoch (e.g. Figure 7.41, LVIA VP 17), indicate that where the proposed wind farm would be theoretically visible, it would be partly screened by woodland and forestry, and visible only in distant views, and topographically separated from the tower.

10.6.23 The introduction of the wind farm would constitute a detectable change to the setting of the tower, but would have little discernable effect on the ability to appreciate and understand the setting of the tower, which is largely constituted by Loch Rannoch itself. The impact of the development on the setting of tower is assessed as being of no more than low magnitude and of minor significance (non-significant in EIA terms). The proposed wind farm would not affect an ability to understand and appreciate the character and architectural qualities of the Tower and its heritage value would remain undiminished.

- 10.6.24 The Rannoch Parish Church is of a neo-Norman style designed by Peter McGregor Chalmers, Architect, 1907 to incorporate an apse and retaining the bellcote of an earlier church (presumably that of a church erected c. 1776). It is a small single storey building, continuing in use as a place of worship. The church sits in a slightly secluded setting, set back from the main road that runs along the southern side of Loch Rannoch, and within a small drystone walled churchyard. Views of the loch, from the church, are partly screened by trees and by a nearby croft house; the hills to the north of Loch Rannoch can be glimpsed beyond the croft, but they do not form an important element in the church's setting. The church in its churchyard can be seen from the public road, when approaching from the west, from Bridge of Gaur. The church has some social and experiential value due to its continuing use as a church, its setting close to the shore at the end of Loch Rannoch and the historical and architectural properties of the building. The church is of regional heritage importance, and is assessed as have a setting that provides a high but localised contribution its understanding and appreciation. The setting of the church is therefore assessed to be of high, but localised, sensitivity.
- 10.6.25 The ZTV (Figure 10.2) indicates that between 13 and 18 turbine blade tips would theoretically be visible in views to the northeast from the church, which stands set back from and above the minor road along the south shore of Loch Rannoch at its western end. A wireline visualisation from a location to the west of the church at the Bridge of Gaur (Figure 7.26, LVIA VP 2), shows that turbines would be visible from this location, above and beyond the skyline on rising ground to the north. The accompanying photomontage shows, however, that the turbines would be largely screened from view by woodland on the near horizon on the southern shore of Loch Rannoch. From the location of the church itself, additional screening of views of the development to the north and northeast, is provided by the trees and the croft house near to the church.
- 10.6.26 Should un-screened views of the development be afforded from the church, the proposed wind farm would appear in distant views on the high ground on the northern shores of Loch Rannoch, which does not form part of the more secluded and localised setting of the church. In addition, the proposed wind farm and the church would not be visible in combination when approaching the church from the west. The introduction of the wind farm would have little discernable effect on the ability to appreciate the localised and secluded setting of the church and the impact of the development on the setting of Braes of Rannoch Parish Church is assessed as being of imperceptible magnitude and of negligible significance (non-significant in EIA terms). The proposed wind farm would not affect an ability to understand and appreciate the character and architectural qualities of the Church and its heritage value would remain undiminished.
- ## 10.7 Proposed Mitigation
- 10.7.1 The emphasis in Scottish Government Planning Advice Note (PAN) 2/2011: Planning and Archaeology (PAN 2) is the preservation of important remains in situ, where practicable, and by record where preservation is not possible. The layout of the proposed wind farm has been designed to avoid all identified heritage assets within the site and stand-off buffers of 50m have been respected during the design process. The proposed wind farm layout therefore embeds significant mitigation of direct impacts on identified heritage assets.
- 10.7.2 The mitigation measures presented below take account of the planning guidance in PAN 2 and set out appropriate methods for recording and ensuring that, where practical, surviving assets are preserved intact to retain the present historic elements of the landscape.
- 10.7.3 All mitigation works presented in the following paragraphs would take place prior to or, where appropriate, during, the construction of the proposed wind farm. All works would be conducted by a professional archaeological

organisation, and the scope of works would be detailed in one or more Written Scheme(s) of Investigation (WSI). The WSI(s) would make provision for appropriate post-excavation analysis and dissemination of the results of the mitigation works, as well as for archiving of the project materials and records. The WSI(s) would be developed in consultation with PKHT on behalf of PKC.

Preservation in situ

- 10.7.4 In accordance with the requirements of planning policy, where heritage assets lie in close proximity to one or more construction elements of the proposed wind farm, they would be avoided to ensure their preservation in situ. Where appropriate, surviving heritage assets would be visibly marked-out to signal their presence to construction workers and to prevent accidental damage occurring to the remains during construction activities in the vicinity.
- 10.7.5 Two concrete platforms (7a-b) lie in close proximity to the main access route to the proposed wind farm. As these features are of modern origin, and the main access route to which they lie adjacent is a modern made road, no mitigation in the form of visible demarcation would be required to offset any potential direct impacts incurred on these assets through accidental damage during the construction phase.
- 10.7.6 There are no other heritage assets that lie in close proximity to one or more construction elements of the proposed wind farm that would require mitigation in the form of demarcation.

Watching Briefs

- 10.7.7 Construction of the proposed access track to Turbines 10, 24 and 25, and Turbine 10 itself, would directly affect the remains of a trackway (3), traces of which are visible today as a narrow intermittent turf-covered terrace or holloway. No 'built' elements relating to the trackway were observed during the field survey, however, the trackway dates to at least the mid-19th century, and is clearly shown on historic Ordnance survey mapping linking former townships along the northern shore of Loch Rannoch, with extensive shieling grounds (1 and 2). The variety and extent of the shieling huts recorded within the shieling grounds recorded suggest a complex and potentially long-lived history of use and occupation. It is therefore possible that archaeological remains such as artefacts and features, relating to the repeated use of the shieling grounds may survive below the current ground level.
- 10.7.8 The potential for the site to contain buried remains of archaeological importance is assessed as being low to moderate, but it is assessed that there is a low to negligible potential of encountering features of archaeological importance during construction works. The full scope of any archaeological watching brief would be agreed in advance of the construction of the wind farm with PKHT. The agreed scope would be set out in a WSI in response to, and to take account of, any planning conditions.
- 10.7.9 If important discoveries are made during any watching brief and preservation in situ is not possible, provision would be made for an appropriate level of recording that may include excavation, where necessary, of any archaeological remains encountered. Such provision would also include the consequent production of written reports on the findings, with post-excavation analyses and publications of the results of the works, as appropriate.

Construction Guidelines

- 10.7.10 Written Guidelines would be issued for use by all construction contractors, outlining the need to avoid causing unnecessary damage to known sites. The Guidelines would set out arrangements for calling upon retained

professional support in the event that buried archaeological remains of potential archaeological interest (such as building remains, human remains, artefacts) should be discovered in areas not subject to archaeological monitoring. The Guidelines would make clear the legal responsibilities placed upon those who disturb artefacts or human remains.

10.8 Residual Impacts

10.8.1 The proposed programme of mitigation through preservation in situ of avoidable remains and watching brief (and further potential recording) where direct impacts are unavoidable would be sufficient to reduce (through preservation in situ) or offset (through recording and publication) the predicted direct impacts on heritage assets.

10.8.2 Archaeological remains are a finite and non-renewable resource, and offset mitigation is a compensatory measure, at the lower end of the scale of mitigation options set out in Planning Advice Note 58 (PAN 58). The completion of the programme of archaeological offset mitigation works as set out above would compensate for the loss of the archaeological resource that would occur as a result of the construction of the proposed wind farm, but would not reduce the magnitude, and therefore the significance, of the predicted direct impacts.

10.8.3 A residual direct impact of negligible significance is predicted for the remains of a trackway (3).

10.8.4 Residual indirect effects of no more than minor significance (non-significant) have been predicted for all assets that fall within the ZTV, together with three other assets not within the ZTV (Rannoch Power station and valve house, and Eilean nam Faileag Tower) but whose settings are judged to be of high sensitivity and for which views of these assets and the proposed wind farm together are possible.

10.9 Summary

10.9.1 The Cultural Heritage chapter considers the likely effects on archaeology and built heritage interests of the construction and operation of the proposed windfarm. The assessment has been undertaken by CFA Archaeology Ltd (CFA), informed by comments and information supplied by HS, PKC and PKHT. The assessment was conducted in accordance with the Institute for Archaeologists Code of Conduct (2013), and Standard and Guidance for Historic Environment Desk-based Assessment (2012) and Field Evaluations (2013).

10.9.2 A desk-based assessment and reconnaissance walk-over field survey of the site and the proposed access route was carried out to inform the proposed wind farm design. The study also identified heritage assets within 10km of the proposed wind farm that could have their settings affected.

10.9.3 The assessment has identified eight heritage assets of varying levels of importance, including two concentrations of shieling huts, assessed as being of regional heritage importance, within the site. Assets identified largely relate to medieval / post-medieval settlement, farming and pastoral activity. An assessment of the known historic environment assets of the surrounding area indicates that there is a low to moderate probability of encountering sites or features of archaeological interest within the site; but it is assessed that there is a low to negligible potential of encountering features of archaeological importance during construction works.

10.9.4 The windfarm layout has been designed to avoid all significant archaeological remains; but one feature, a trackway of lesser importance, would receive a residual construction impact of negligible significance (non-significant in EIA terms). It is possible that archaeological remains such as artefacts and features, relating to the repeated use of the shieling grounds identified through the study, may survive below the current ground level.

Mitigation, in the form of a watching brief in the vicinity of those assets, would offset (through archaeological recording and the recovery of archaeological data) any predicted construction impact.

10.9.5 There would be no significant residual operational or cumulative impacts on heritage assets and therefore historic environment interests.

10.10 Glossary/Abbreviations

Table 10.10 Glossary of Technical Terms

Reference	Definition
Apse	Domed or vaulted semicircular or polygonal recess at the east end of a church
Crannog	An island, partly or wholly artificial, often formed by dumping timber, earth and stones and revetted with timber piles or a palisade. Built in a loch, wetland or estuary and dating from prehistory to medieval.
Shielings	Upland pasture to which animals were driven on a seasonal (summer) basis
Shieling hut	A small dwelling of stone or turf, occupied on a seasonal basis by people tending animals on upland pastures

Table 10.11 List of Abbreviations

Abbreviation	Definition
DBA	Desk-based Assessment
HS	Historic Scotland
HER	Historic Environment Record
IfA	Institute for Archaeologists
LDP	Local Development Plan
PKC	Perth & Kinross Council
PKHT	Perth & Kinross Heritage Trust
RCAHMS	Royal Commission on the Ancient and Historical Monuments of Scotland, (the National organisation responsible for maintaining records pertaining to the historic environment across Scotland).
SHEP	Scottish Historic Environment Policy
SPAD	Scottish Palaeoecological Database, (a database containing records of known palaeoecological sites cores across Scotland (i.e. historically recorded raised mires or researched palaeoenvironmental sites)
SPP	Scottish Planning Policy
ZTV	Zone of Theoretical Visibility

10.11 Tables

10.11.1 See example below.

Table Title e.g. 1.1 Guidelines

Heading	Heading	Heading	Heading	Heading
Text	Text	Text	Text	Text
Text	Text	Text	Text	Text
Text	Text	Text	Text	Text
Text	Text	Text	Text	Text

Source

10.11.2 The table heading should be red (188.20.26) with white text.

10.11.3 Table text should be – Style body text – font size of tables should be 10pt.

10.11.4 Use heading row repeat where necessary.

10.11.5 Figures will also be numbered manually, by chapter, eg. Figures 1.1 to figure 1.99, figures 2.1 to 2.5, etc for respective chapters.

10.12 Bullet Points

10.12.1 Stacked bullet points should be like this:-

- Main Bullet point – Arial Narrow 11
 - Sub bullet point
 - Sub bullet point

10.13 Quotes

10.13.1 "Quotes should be like this, as a separate paragraph with no paragraph number and in italics".

10.14 Sub Sub Headings

10.14.1 e.g XXX

10.14.2 These should not be numbered – Style type Arial Narrow 11 and bold

10.15 Technical Annexes

10.15.1 Please note that all Technical Annexes should continue to be numbered in accordance with the specific chapter to which they refer. Where more than one technical annex exists these should be numbered as X.1, X.2 etc.

10.15.3 Tables

10.15.4

10.15.5 Plates

10.15.6 Figures

10.15.7 Technical Appendices

Appendix 10.1: Historic Environment Assets identified within the Site (Figure 10.1)

Site no.	Site name and type	HER no. / RCAHMS no.	Easting	Northing	Source	Site description	Heritage Importance
1	Glac A' Chaise, Shieling hut(s)	MPK126 / NN56SW 2	254100	763800	HER; RCAHMS; Historic maps; Field Survey	<p>The HER and RCAHMS databases record that eight unroofed shieling huts, annotated as 'Ruins', are depicted on the Ordnance Survey 1st Edition map (Perthshire 1867, Sheet XXVII). The records also note that eight unroofed buildings, annotated as 'Old Shielings', and nine further black dots which may indicate the location of further buildings, are shown on the 1976 1:10,000 Ordnance Survey map.</p> <p>Seven unroofed shieling huts, annotated 'Glac a' Chaise', are shown on the Ordnance Survey 2nd Edition map (Perth and Clackmannanshire 1900, Sheet XXVII.NW).</p> <p>Field survey recorded the surviving remains of at least 35 structures (clustered mostly in two groups 1a and 1b) spread over an extensive area along the Allt a Choire Odhair Bhig at an altitude of around 450m AOD and extending northwards along the trackway (3) that leads north to Allt an Luib Bhain. An additional building (1c) was found, set noticeably apart from the northernmost group (1b).</p> <p>1a: a cluster of at least nine structures spread along the banks of the Allt a Choire Odhair Bhig. The structures include:</p> <p>three large rectangular buildings, ranging in size from 6m to 9m long and 4m to 6.5m wide, defined by the remains of dry-stone walls 0.4m high;</p> <p>two possible dry-stone built sub-rectangular shieling huts, 4.5m x 3.5m and 5.5m x 4m respectively with wall remains surviving to only 0.3m high;</p> <p>a shieling hut 5m long x 4m wide defined by a sub-oval turf and stone bank 0.3m high;</p> <p>two further sub-rectangular shieling huts, defined by turf banks, ranging in size from 4m to 6m long, 2m to 3m wide and 0.2m to 0.3m high; and</p> <p>a small oval structure, possibly a small store, 2m x 1.5m defined by the remains of a wall 0.2m high.</p> <p>1b: a large cluster of at least 23 structures grouped to the north of the Allt a Choire Odhair Bhig. The structures include:</p> <p>11 rectangular or sub-rectangular dry-stone walled buildings ranging in size from 4m to 7m long x 2m to 4.5m wide and generally 0.3m to 0.5m high, although two well-preserved structures stand to a height of 0.80.9m in places. One additional sub-rectangular building was also noted defined by the remnants of a turf and stone bank. Many of these structures stand on small terraces overlooking the burn.</p> <p>In addition, five sub-circular/circular structures were identified, varying in size from 3m to 6m long x 2.5m to 5.5m wide and 0.2m to 0.8m high. A further three small circular structures, possible stores, measuring 1.5m to 2.5m in diameter and 0.2m to 0.8m high, and the remains of what may be two sunken floored structures, cut into slopes, measuring 3m to 4m long x 3m to 3.5m wide and 1m to 1.3m deep were also noted.</p> <p>One of the largest structures identified was the remains of a boat-shaped building, with at least two compartments, standing on a small terrace and defined by a dry-stone wall, 8.5m long x 4m wide and 0.9m (max) high.</p> <p>A possible small quarry (254240, 763977) was also found, cut into a bedrock slope.</p> <p>1c: A large sub-rectangular building 7m long x 3.5m wide standing in a sheltered spot at the base of a natural bedrock outcrop. The remains of a later, small circular structure overlie the more substantial building.</p>	Regional
2	Ruighe Caochan An T-Seilich, Shieling hut(s)	MPK6747 / NN56SE 5	255000	762900	HER; RCAHMS; Historic maps; Field Survey	<p>The HER and RCAHMS databases record that three unroofed buildings, annotated as 'Ruadh Caochan an t-Seilich' (in ruins), are depicted on the Ordnance Survey 1st Edition map (Perthshire 1867, Sheet XXVII) at: 25501 76311; 25507 76293; and 25510 76291. Two unroofed buildings, annotated as 'Old Shielings', are shown on the 1975 1:10,000 Ordnance Survey map.</p> <p>The same shieling huts are depicted on the Ordnance Survey 2nd Edition map (Perth and Clackmannanshire 1900, Sheet XXVII.NW).</p>	Regional

Site no.	Site name and type	HER no. / RCAHMS no.	Easting	Northing	Source	Site description	Heritage Importance
						<p>Field survey recorded the surviving remains of at least eight shieling structures spread along a tributary stream feeding into Allt Caochan an t-Seilich at an altitude of around 450m AOD. The structures vary in size from 4m long by 3m wide to 6m long by 4m wide and are dispersed in two groups:</p> <p>2a: A small group of three turf buildings on the western bank of the Allt Caochan an t-Seilich. Two of the buildings are sub-rectangular in shape, 5m to 6m long x 3m to 3.5m wide and 0.4m to 0.6m high. In addition, the vestigial remains of a possible small square structure, defined by a turf bank, 4m x 4m and 0.2m high, were identified on a slight terrace (or building platform).</p> <p>2b: Vestigial remains of five possible shieling huts, clustered around the confluence of the Allt Caochan an t-Seilich and an un-named tributary. Three structures appear to have originally been of dry-stone construction and some of the wall footings still survive, although generally in poor condition. These structures are sub-rectangular in plan, ranging in size from 4m to 5.5m long x 3m to 3.5m wide and 0.3m to 0.5m (max) high. One of the structures has a slightly sunken floor excavated into a small terrace. Two structures occupy the summits of knolls immediately adjacent to the Allt Caochan an t-Seilich. These sub-rectangular structures are 5m to 6m long x 4m wide and defined by low turf banks, 0.4m to 0.5m high.</p>	
3	Trackway		254444	763657	Historic maps; Field Survey	<p>Trackway depicted on the Ordnance Survey 1st Edition map (Perthshire 1867, Sheet XXVII). The track is shown running from two townships, 'Baile na Creige' and 'Learan' on the Loch Rannoch shoreline, to the shieling grounds described above (1 & 2) and beyond, ending abruptly at the Allt an Luib Bhain (north of Site 1).</p> <p>Field survey recorded intermittent traces of what are probably the surviving remains of this trackway. Where visible, the track is 1m to 1.5m wide and visible as a narrow terrace or holloway on the hill slopes, roughly following the contours.</p>	Lesser
4	Shielings(s) (possible);		254876	763415	Historic maps; Field survey	<p>A two compartment unroofed structure, possibly a shieling hut, is depicted on the Ordnance Survey 2nd Edition map (Perth and Clackmannanshire 1900, Sheet XXVII.NE). It is not shown on the Ordnance Survey 1st Edition map (Perthshire, Sheet XVII 1867).</p> <p>Field survey identified the remains of the building 8m long x 4m wide defined by a turf and stone bank 0.3m high. It stands immediately north of a trackway (3). The remains of a possible second building (or enclosure attached to that described above) lie in dense heather on the opposite side of the trackway. Little of this structure survives apart from the traces of a low-relief turf bank, 1.5m to 2m wide by 0.3m high.</p>	Regional
5	Shieling hut (possible)		254033	764599	Field survey	Field survey recorded a scatter of rectangular stone blocks covering an area measuring approximately 4m by 3m and up to 0.2m high in thick vegetation and partially overgrow. Possibly the surviving remains of an isolated, now demolished, building (possible shieling hut) or other structure.	Unknown
6	Trackway		251326	761784	Field survey	Field survey recorded a short length (100m long) of former trackway running parallel with the modern road from Bridge of Ericht to Loch Ericht. The trackway is slightly cambered, 2m to 3m wide, with a ditch on the upslope side. It is possibly a remnant of an earlier trackway, shown on the Ordnance Survey 2nd Edition map (Perthshire 1900, Sheet XXVII.NE) running from Ardlarach to a small unroofed building named as 'Ruighe Glas' (Green Shieling ground) on the Allt Ghlas..	Lesser
7	Concrete platforms		251710	759963	Field survey	<p>Field survey recorded the remains of two large concrete platforms on either side of the existing road running from Bridge of Ericht to Loch Ericht. These are probably the remains of platforms associated with temporary structures connected with the construction of Rannoch Power Station.</p> <p>7a: (251714, 759993) measures 20m x 10m and 0.4m high.</p> <p>7b: (251713, 759909) 24m x 9m x 0.2m and 0.7m high.</p>	Lesser
8	Settlement; Mill (possible)	MPK11046 / NN55NW 22; MPK11158 / NN55NW 25; MPK11159 /	252174	758242	HER; RCAHMS; Historic maps; Field Survey	An unnamed settlement is depicted on Roy's map (1747-55) immediately east of the River Ericht near the shore of Loch Rannoch. A small settlement and a mill are shown at this same location (on the east bank at the mouth of the Ericht River) on Thomson's map (1832) at a place named as 'Culevulan'. The settlement is named as 'Cul a' Mhuilinn' (translated as - 'behind the mill') on the Ordnance Survey 1st Edition map (Perthshire, Sheet XXXV 1867) and shown as a group of three buildings alongside the road beside the River Ericht.	Local

Site no.	Site name and type	HER no. / RCAHMS no.	Easting	Northing	Source	Site description	Heritage Importance
		NN55NW 26				<p>The HER and RCAHMS database record the presence of a settlement just north of the River Ericht; the HER noting the presence of three buildings but providing little detail:</p> <ul style="list-style-type: none">• House (Bridge of Ericht) at 252180, 758230• House (Bridge of Ericht) at 252130, 758280• House (Tighnabruiaich) at 252210, 758330 <p>All three buildings survive and are occupied dwellings.</p>	

Appendix 10.2: External Receptors within 10km of the Proposed Wind Farm (Figure 10.2)

Site ID.	Site name	Status.	Easting	Northing	Distance to Nearest Turbine (km)	No. Turbine Tips visible	Heritage Importance	Setting	Contribution of Setting	Sensitivity of Setting	Magnitude of Impact	Significance of Impact
51716	Grampian Hydro Electric Scheme: Rannoch Power Station	Category A Listed Building (Group Category A Listed)	252995	758276	3.9	0	National	2-storey, 4-bay, and basement rectangular-plan power station in simple classical style set on piers above tailrace to front (south) with large arcaded arched windows at ground floor. Stands on northern shores of Loch Rannoch. High ground behind Power Station forms a dominant feature of landscape setting. Visible feature in local landscape, from both northern and southern shores of Loch Rannoch. High social and experiential value due to landscape setting, architectural and historical properties.	High	High	Low: no theoretical visibility of development from power station or valve house, but visible in same views as development from southern shores of Loch Rannoch. Limited visibility of turbines, due to screening form topography, woodland/forestry, and only visible in distant views. Turbines not present in views of high ground on which Power Station located.	Minor
51717	Grampian Hydro Electric Scheme: valve house	Category B Listed Building (Group Category A Listed)	252939	759109	3.1	0	Regional	4-bay, single storey and attic rectangular-plan valve-house in simple classical style with large arcaded arched windows at ground floor. Stands on hillside above Power Station on northern shores of Loch Rannoch. High ground behind forms a dominant feature of landscape setting. Visible feature in local landscape, from both northern and southern shores of Loch Rannoch. High social and experiential value due to landscape setting, architectural and historical properties.	High	High	Low: no theoretical visibility of development from valve house, but visible in same views as development from southern shores of Loch Rannoch. Limited visibility of turbines, due to screening form topography, woodland/forestry, and only visible in distant views. Turbines not present in views of high ground on which valve house located.	Minor
12239	Rannoch Lodge	Category B Listed Building	250688	757335	5.2	1-6	Regional	2-storey 18th century house, adjacent to Loch Rannoch shoreline. Largely surrounded by mixed woodland, back-dropped by woodland and hills. Mixed improved and unimproved rural/upland landscape. Main views out to east along Loch Rannoch. Some views of house visible from southern side of Loch, but not obvious feature in local landscape. Secluded localised setting to Loch Rannoch shoreline. High social and experiential value due to historical/architectural properties and landscape setting.	High (Localised)	High (Localised)	Imperceptible: views of development from Lodge screened by surrounding woodland and rising topography to north. Main views and setting focused east along Loch Rannoch. LVIA VP 2 shows limited visibility of lodge and development in same view from south side of Loch. No effect on architectural/historical properties.	Negligible
12240	Rannoch Lodge, Sundial	Category B Listed	250600	757300	5.3	7-12	Regional	Sundial within Rannoch Lodge grounds. Very	High (Localised)	High	Imperceptible: views of	Negligible

Site ID.	Site name	Status.	Easting	Northing	Distance to Nearest Turbine (km)	No. Turbine Tips visible	Heritage Importance	Setting	Contribution of Setting	Sensitivity of Setting	Magnitude of Impact	Significance of Impact
		Building						localised setting to Lodge grounds. Screened by surrounding woodland.		(Localised)	development from sundial screened by woodland surrounding Lodge. Very localised setting to Lodge grounds.	
12241	Eilean nam Faoileag Tower	Category B Listed Building	253049	757694	4.5	0	Regional	Former crannog now a 19 th century tower located on an island in Loch Rannoch. Historical references to occupation from 15 th -17 th centuries. Loch Rannoch forms main landscape setting of tower. Tower forms element of local landscape, visible from northern and southern shores of Loch. High social and experiential value due to landscape setting, historical and architectural properties.	High	High	Low: no theoretical visibility of development from tower, but visible in same views as development from southern shores of Loch Rannoch. Limited visibility of turbines, due to screening from topography, woodland/forestry, and only visible in distant views. Turbines not present in main landscape setting of Loch. No effect on architectural/historical properties.	Minor
12242	Bridge Of Gaur, or Victoria Bridge	Category B Listed Building	250120	756690	6	1-6	Regional	3 segmental arched bridge dating to 1838, built by Sir Niel Menzies Bart and the Trustees of the Estate of Strowan. Localised setting to Rannoch Loch and the River Gaur. Some experiential and social value due to historical/architectural properties and landscape setting.	High (Localised)	High (Localised)	Imperceptible: LVIA VP 2 shows that views of development from bridge largely screened by woodland on near horizon. No effect on architectural/historical properties.	Negligible
12243	Braes of Rannoch Church	Category B Listed Building	250730	756632	5.9	13-18	Regional	Early 20 th century church with 18 th century elements, located on slightly rising ground, visible when approaching from west, but largely secluded setting set back from road. Screening of views to north and north-east towards Loch Rannoch from trees and croft house. Localised setting within wider mixed improved rural/upland landscape. Some social and experiential value due to historical/architectural properties, continuing use as a church and landscape setting.	High (Localised)	High (Localised)	Imperceptible: Development would theoretically be in views from church on high ground on far horizon, but church has localised setting, and views in this direction also screened by trees and croft near church. LVIA VP 2, taken from location near to church shows that views of development largely screened by woodland on northern shore of Loch Rannoch. Development not visible in views of	Negligible

Site ID.	Site name	Status.	Easting	Northing	Distance to Nearest Turbine (km)	No. Turbine Tips visible	Heritage Importance	Setting	Contribution of Setting	Sensitivity of Setting	Magnitude of Impact	Significance of Impact
12244	Dall House	Category B Listed Building	259384	756536	7.5	1-6	Regional	Mid-19th century 2-3 storey Scots baronial building with 4 storey entrance tower, set within grounds of improved grassland and mixed woodland and set back from the southern shores of Loch Rannoch. Surrounding mixed woodland and forestry of Tay Forest park and Rannoch Forest. Semi-secluded setting. High social and experiential value due to historical/architectural properties and landscape setting.	High (Localised)	High (Localised)	church when approaching from west. No effect on architectural/historical properties. Imperceptible: LVIA VP 17 shows that development visible only in distant views from location near Dall House. Views of development from shore of southern side of Loch Rannoch largely screened by topography and commercial forestry plantation and woodland on far horizon. Views of development from house partly screened by woodland around house on near horizon. No effect on architectural/historical properties.	Negligible



Plate 10.1: Example of sub-rectangular shieling hut (1a)



Plate 10.2: Example of larger rectangular building (1a)



Plate 10.3: Example of sub-rectangular shieling hut with small circular structure behind (1b)



Plate 10.4: Example of possible sunken floor structure (1b)



Plate 10.5: Boat-shaped structure (1b)



Plate 10.6: Earlier rectangular building underlying later circular structure (1c)



Plate 10.7: Shieling hut defined by turf bank (2b)



Plate 10.8: Possible shieling hut (4)





Plate 10.9: Trackway (3)


 Turbine locations

	Crane pads/ Hardstandings
--	------------------------------

—— Proposed access track

 Indicative construction compound area

 Indicative substation location


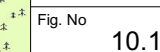
 Indicative borrow pit location

Access Route


Stand-off Buffer (50m)

Cultural Heritage Site (point)

 Cultural Heritage Site (linear)

 Cultural Heritage Site (area)

Title	
Historic Environment:	
Constraints	

	Project
	Talladh-a-bheithe Wind Farm

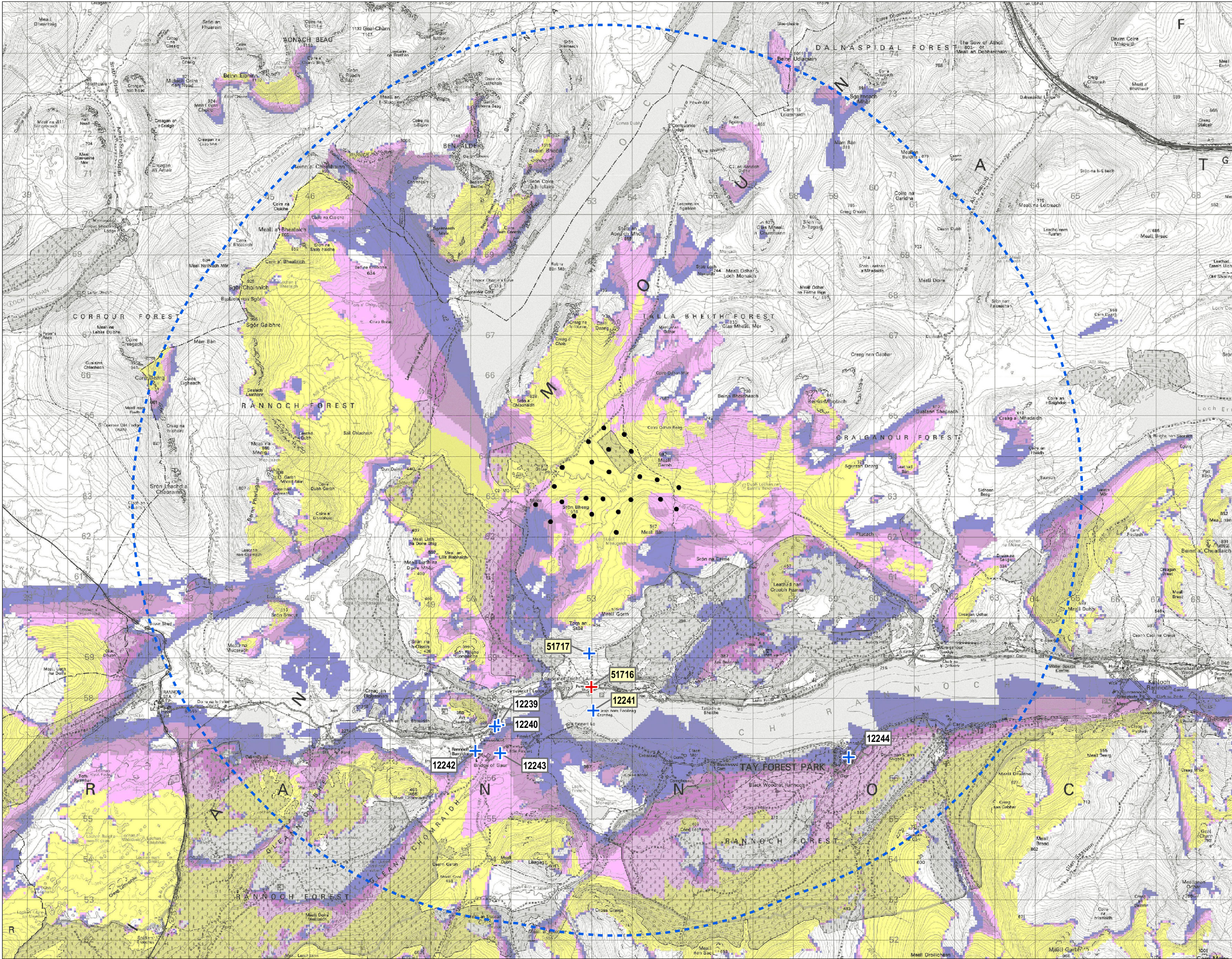
Scale at A3
1:26,000

Client
Eventus

Drawn by:	Checked by:	Report No:
SW	GM	

The copyright in this document (including its electronic form) shall remain vested in CFA Archaeology Ltd (CFA) but the Client shall have a licence to copy and use the document for the purpose for which it was provided. CFA shall not be liable for the use by any person of this document for any purpose other than that for which the same was provided by CFA. This document shall not be reproduced in whole or in part or relied upon by third parties for any use whatsoever without the express written authority of CFA.

Reproduced with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office,
© Crown copyright. CFA Archaeology Ltd, Old Engine House, Eskmills Park, Musselburgh EH21 7PQ AL100034785



Key

- Turbine Location
- 10km Buffer
- + Listed Building Category A
- + Listed Building Category B

12241 Assets with no predicted visibility, but discussed in the text

Number of Turbines Visible (Blade Tip)

- 1 - 6 Turbines
- 7 - 12 Turbines
- 13 - 18 Turbines
- 19 - 24 Turbines



Fig. No	Revision
10.2	

Title
Cultural Heritage: External Receptors and ZTV

Project
Talladh-a-Bheithe Wind Farm

Scale at A3
1:85,000

Client
Eventus

Drawn by: SW
Checked by: GM
Report No: -