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APPENDICES

| Technical Appendix 7.1: Cultural Heritage Gazetteer

Introduction

- 7.1 The 'cultural heritage' of an area comprises archaeological sites, historic buildings, Inventoried Gardens and Designed Landscapes (GDLs), Inventoried Battlefields and other historic environment features. The 'setting' of an asset within the wider landscape may contribute to its cultural heritage significance.
- 7.2 This Chapter assesses the potential effects of the construction and operation of the Proposed Development on heritage assets within the site and surrounding area. A full description of the Proposed Development is provided in **Chapter 1: Introduction and Project Description**.
- 7.3 The assessment has included consideration of all known designated and non-designated heritage assets within the site, all nationally significant heritage assets within 10km of the wind turbines that fall within the Zone of Theoretical Visibility (ZTV) model, and further nationally significant heritage assets beyond 10km of the wind turbines identified in consultation with statutory consultees or by the assessment as having a setting sensitive to change to the distant landscape.
- 7.4 This assessment has been based on a range of data, including heritage assets recorded by regional and national bodies, readily available secondary sources and the results of a walk over survey of the site.
- 7.5 The historic development of the site and study area are discussed in the context of the wider region in order to predict the direct impact on any known or potential unknown archaeological remains within the site and indirect impacts on assets within the site and study area as appropriate. Measures necessary to safeguard or record any assets potentially affected by the Proposed Development are suggested.
- 7.6 For the purposes of this assessment the historic environment and cultural heritage is considered to consist of a variety of historic assets, including the following types of designated assets:
- World Heritage Sites (WHS);
 - Scheduled Monuments (SM);
 - Listed Buildings (LB);
 - Inventoried battlefields;
 - Conservation areas; and
 - Inventoried Gardens and Designed Landscapes (GDLs)
- 7.7 These designations are of national importance, except that conservation areas may be of national or regional importance. Only Category A listed buildings are considered to be of national importance. Category B listed buildings are considered of regional importance, and Category C listed buildings of local importance (SNH Handbook, 2019).
- 7.8 In addition, the following non-designated assets are also included in the assessment:
- nationally/regionally recorded archaeological sites and finds; and
 - other buildings and structures of historic or architectural importance.
- 7.9 This Chapter is supported by:
- **Technical Appendix 7.1: Cultural Heritage Gazetteer**

- **Figures 7.1-7.4** are referenced in the text where relevant.

7.10 The assessment has been carried out by Beth Gray MA (hons) ACIfA of SLR Consulting Ltd. Detail professional qualifications and any relevant codes of practice have been followed and can be found in **Chapter 1: Introduction and Project Description**.

Consultation

7.11 In undertaking the assessment, consideration has been given to the scoping responses and other consultation undertaken as detailed in **Table 7-1**.

Table 7-1: Summary of Scoping and Consultation Responses

Consultee	Response	Comment/Action Taken
Historic Environment Scotland (HES) Scoping/Screening – 30 October 2023	HES do not consider the Proposed Development to have potential for significant impact on assets that fall within its remit.	Assessment on impact through setting change has been scoped out in line with comments from HES and THCHET.
The Highland Council Historic Environment Team (THCHET) Scoping/Screening – 17 November 2023	THCHET request that an updated assessment of both direct and indirect impacts on unrecorded and/or buried archaeology and archaeological deposits.	Assessment of impact through setting change has been scoped out and an assessment of direct and indirect effects has been scoped in and carried out on buried archaeology.

Approach and Methods

Study Areas

7.12 There is no guidance from HES which defines a required study area for the archaeological and cultural heritage assessment of wind farms. The following study area is proposed for the assessment of direct impact:

- the site and a buffer zone of 1km to inform the predictive model of buried archaeology from the site.

Effects Assessed in Full

7.13 The following effects have been assessed in full:

- direct effects on all heritage assets within the site; and
- indirect effects upon all heritage assets within the site.

Effects Scoped Out

7.14 The following have been scoped out:

- Effects upon the setting of designated cultural heritage assets through change, in line with HES consultation on the 30 October 2023.

Data Sources

Table 7-2 sets out the main data sources used in this study.

Table 7-2: Historic Environment Data Sources

Subject	Source	Location
Designated cultural heritage assets (except conservation areas)	The database of Historic Environment Scotland (HES)	HES digital data download
Conservation areas	The Highland Council (THC)	HES digital data download
Non-Designated cultural heritage assets	Data held by The Highland Council (THC) Historic Environment Record (HER)	Digital data supplied as download
Historic maps	National Library of Scotland	Online
Aerial photography	HES	HES database Canmore and National Collection of Aerial Photograph (NCAP) (online)
Historic Land-Use Assessment	HES	On-line
Historic environment	Unpublished reports	Various
	Published works of synthesis	Various
Current Ordnance Survey (OS) maps	Ordnance Survey	Licence acquired for project
Condition of recorded cultural heritage assets within Proposed Development	Field inspection	Utilised information provided in the original Ben Sca Wind Farm and Ben Sca Wind Farm Extension.

Field Survey

7.15 A field survey was not conducted for this assessment. Observations from previous field surveys for Ben Sca Wind Farm, Ben Sca Extension and Balmeanach Wind Farm have been used to inform the assessment.

Approach to Assessment of Effects

Cultural Heritage Significance

7.16 Impacts have the potential to be caused by the Proposed Development where it changes the baseline condition of either the asset either directly or indirectly.

7.17 In accordance with the Environmental Impact Assessment (EIA) Regulations, this assessment will identify impacts/effects as either direct or indirect, adverse or beneficial, and short-term, long-term or permanent. Direct impacts are those which change the cultural heritage significance of an asset through physical alteration; for purposes of this assessment, indirect impacts are those which affect the cultural heritage significance of an asset by causing change within its depositional environment e.g. through alterations to drainage patterns. Both direct and indirect impacts have equal potential for cultural heritage significance to be adversely affected.

7.18 Assessment of direct and in-direct effects on the cultural heritage significance of an asset will take into account the cultural heritage significance of the affected asset, the probability of further assets being located within the affected areas and their likely significance, and the magnitude of impact on those assets that would result from the implementation of the Proposed Development.

Cultural Heritage Significance

7.19 The cultural significance of undesignated cultural heritage assets will be assessed by a consideration of their intrinsic, contextual, and associative characteristics as defined in Annex 1 of HES (2019b). In relation to such assets, this assessment will focus upon an assessment of the assets' inherent potential to contribute to our understanding of the past:

- the character of their structural, decorative and field characteristics as determined from the HER and Canmore records and / or site visits;
- the contribution of an asset to its class of monument, or the diminution of that class should an asset be lost; and
- how a site relates to people, practices, events, and/or historical or social movements.

7.20 Assessments of significance recorded within the HER will be taken into account where available.

7.21 **Table 7-3** shows the potential levels of cultural heritage significance of an asset related to designation, status and grading, and where non-designated, to a scale of highest to lowest importance. This table will act as an aid to consistency in the exercise of professional judgement and provides a degree of transparency for others in evaluating the conclusions reached.

Table 7-3: Cultural Heritage Significance of Cultural Heritage Assets

Cultural Heritage Significance	Explanation
Highest	Designated assets of international importance, including: World Heritage Sites.
High	Designated assets of national importance, including: Scheduled Monuments; Category A Listed Buildings; and Gardens and Designed Landscapes included on the national inventory; Designated Battlefields on the national inventory.
Medium	Designated assets of regional importance, including: Category B Listed Buildings; Some Conservation Areas; and Non-designated assets of equivalent significance.
Low	Assets of local importance, including: Category C Listed Buildings; Some Conservation Areas; and Non-designated assets of equivalent significance.

Cultural Heritage Significance	Explanation
None	Features that do not retain any cultural heritage significance.
Unknown	Assets of indeterminable significance.

Magnitude of Impact

- 7.22 Determining the magnitude of any likely impacts requires consideration of the nature of the activities proposed during the construction and operation of the Proposed Development.
- 7.23 The impacts could potentially include direct change (e.g. ground disturbance), and indirect change (e.g. environmental change). Impacts may be beneficial or adverse, and may be short term, long term or permanent. Magnitude of impact will be assessed with reference to the criteria set out in **Table 7-4**.

Table 7-4: Magnitude of Impacts on Cultural Heritage Assets

Magnitude of Impact	Explanation
High Beneficial	The Proposed Development would considerably enhance the cultural heritage significance of the affected asset, or the ability to understand, appreciate and experience it.
Medium Beneficial	The Proposed Development would enhance to a clearly discernible extent the cultural heritage significance of the affected asset, or the ability to understand, appreciate and experience it.
Low Beneficial	The Proposed Development would enhance to a minor extent the cultural heritage significance of the affected asset, or the ability to understand, appreciate and experience it.
Very Low Beneficial	The Proposed Development would enhance to a very minor extent the cultural heritage significance of the affected asset, or the ability understand, appreciate and experience it.
Neutral/None	The Proposed Development would not affect or would have harmful and enhancing effects of equal magnitude on the cultural heritage significance of the affected asset, or the ability to understand, appreciate and experience it.
Very Low Adverse	The Proposed Development would diminish to a very minor extent the cultural heritage significance of the affected asset, or the ability to understand, appreciate and experience it.
Low Adverse	The Proposed Development would diminish to a minor extent the cultural heritage significance of the affected asset, or the ability to understand, appreciate and experience it.
Medium Adverse	The Proposed Development would diminish to a clearly discernible extent the cultural heritage significance of the affected asset, or the ability to understand, appreciate and experience it.
High Adverse	The Proposed Development would considerably diminish the cultural heritage significance of the affected asset, or the ability to understand, appreciate and experience it.

Significance of Effect

7.24 The significance criteria are presented in **Table 7-5**. **Table 7-6** provides a matrix that relates the cultural heritage significance of the asset to the magnitude of impact on its significance, to establish the likely overall significance of effect. Professional judgement has also been used in the determination of the overall significance of effect. Moderate or substantial effects are considered to be significant for the purposes of the EIA Regulations.

Table 7-5: Significance Criteria

Magnitude of Impact	Explanation
Substantial	Severe harm or enhancement such as total loss of significance or integrity of the setting, or exceptional enhancement by the Proposed Development of the cultural heritage significance of the asset and the ability to understand, appreciate and experience the asset in its setting.
Moderate	Harm or enhancement such as the introduction or removal to the baseline of an element that would affect to a clearly discernible extent the cultural heritage significance of the asset and the ability to understand, appreciate and experience it in its setting.
Slight	To a minor extent the Proposed Development would introduce change to the baseline that would harm or enhance the cultural heritage significance of the asset and the ability to understand, appreciate and experience it in its setting.
Very Slight	To a barely discernible extent the Proposed Development would introduce change from the baseline that would harm or enhance the cultural heritage significance of the asset and the ability to understand, appreciate and experience it in its setting.
Negligible	The Proposed Development would not affect or would have harmful and enhancing effects of equal magnitude, on the cultural heritage significance of the affected asset and the ability to understand, appreciate and experience it in its setting.
Neutral/Nil	The Proposed Development have would no effect on the cultural heritage significance of the affected asset and the ability to understand, appreciate and experience it in its setting.

Table 7-6: Significance of Effects on Cultural Heritage Assets

Magnitude of Impact	Cultural Heritage Significance			
	Highest	High	Medium	Low
High beneficial	Substantial	Substantial	Moderate	Slight
Medium beneficial	Substantial	Moderate	Slight	Very slight
Low beneficial	Moderate	Slight	Very slight	Very slight
Very low beneficial	Slight	Very slight	Negligible	Negligible
Neutral/None	Neutral/nil	Neutral/nil	Neutral/nil	Neutral/nil
Very low adverse	Slight	Very slight	Negligible	Negligible
Low adverse	Moderate	Slight	Very slight	Very slight
Medium adverse	Substantial	Moderate	Slight	Very slight
High adverse	Substantial	Substantial	Moderate	Slight

Mitigation

- 7.25 Where adverse effects on cultural heritage are identified, measures to prevent, reduce, and / or where possible offset these effects, have been proposed. Measures can be broken down into two categories relative to whether the impact is direct or indirect.
- 7.26 Direct impact mitigation may include:
- the micro-siting of Proposed Development infrastructure away from sensitive locations;
 - the fencing off or marking out of cultural heritage assets or features in proximity to construction activity in order to avoid disturbance where possible;
 - a programme of archaeological work where required, such as an archaeological watching brief during construction activities in or in proximity to areas of particular concern, or excavation and recording where damage is unavoidable; or
 - a working protocol to be implemented should unrecorded archaeological features be discovered.

Cumulative Effects

- 7.27 A cumulative effect is considered to occur when there is a combination of:
- a moderate or above significance of effect on an asset or group of assets as a result of the Proposed Development; and
 - an effect on the same asset or group of assets as a result of another development or developments.
- 7.28 Cumulative effects would be addressed in two stages:
- assessment of the combined effect of the developments including the Proposed Development; and
 - assessment of the degree to which the Proposed Development contributes to the combined effects.

The cumulative assessment is presented in **paragraph 7.46**.

Residual Effects

- 7.29 Residual effects are those effects that would persist even following mitigation. A summary of residual effects is presented in the concluding remarks.

Statement of Significance

- 7.30 The predicted significance of the effects arising from the Proposed Development are stated. Effects that are considered significant in EIA terms are those that are assessed to be moderate or substantial, in accordance with the guidance contained in the HES and SNH (NatureScot) (2019) Environmental Impact Assessment Handbook, Section C, Page 75. Professional judgment will be used in relation to any findings of a moderate significance of effect, however, to ensure that such effects are genuinely significant and are not being overestimated due to an overly narrow application of the Handbook guidance.

Limitations to Assessment

- 7.31 The assessment is based on the sources outlined in the References section and, therefore, shares the same range of limitations in terms of the comprehensiveness and completeness of those sources.

Baseline Conditions

Introduction

- 7.32 A full description of the site and environs is given in **Chapter 1**.
- 7.33 The baseline remains unchanged since the surveys undertaken for the consented development comprising the Ben Sca Wind Farm on 01 May 2019 and Ben Sca Wind Farm Extension on 04 August 2021. A summary of the baseline data collected for each of these is outlined below.

Prehistoric, Roman, Medieval.

- 7.34 There are no assets attributed to the prehistoric, roman or medieval period within the Proposed Development area. A full list of assets within 1km of the site boundary can be found in **Technical Appendix 7.1: Cultural Heritage Gazetteer**.

Post-Medieval

- 7.35 There are eight assets within the site boundary which are considered to be of post-medieval in date. Four of these assets are sheiling huts with the others being farmstead remains. The closest assets to the proposed infrastructure are: SLR47 (MHG5047) located 10m from the proposed track accessing proposed borrow pit 1; and SLR46 (MHG5045) located 22m from the proposed track accessing proposed turbine 5 (BS-05).
- 7.36 A full list of assets within 1km of the site boundary can be found in **Technical Appendix 7.1: Cultural Heritage Gazetteer**.

Undated Features

- 7.37 Within the site there are four undated assets (SLR91, SLR92, SLR93 and SLR56) which present as cairns. These may be walker cairns and are located no closer than 30m from the proposed infrastructure (SLR92 is 30m from the temporary hardstanding of proposed turbine 1, SLR93 is 38m from the proposed track). SLR56 and SLR91 are over 100m from the proposed infrastructure).
- 7.38 There a number of undated assets within 1km of the site boundary which are shown in **Technical Appendix 7.1: Cultural Heritage Gazetteer**.

Discussion of the Site

- 7.39 Analysis of the historic environment suggests that the site remained largely unchanged since the later 19th century, and historically used for upland pasture during the summer months. The only evidence of human occupation of the site comes in the form of post-medieval sheiling huts, utilising north facing outcrops of rock to shelter from the prevailing wind.

7.40 Analysis of Historic Mapping, Aerial Photography, Light Detection and Ranging) (LIDAR) and the Historic Land Use Assessment show no changes from that of the original applications on the site as stated in **paragraph 7.38**.

Assessment of Effects

Potential Construction Effects

Layout Considerations

7.41 The assessment of effects is based on the Proposed Development description outlined in **Chapter 1**. The Proposed Development alignment and positioning of infrastructure has taken into consideration all environmental and technical constraints identified as part of the baseline research and field studies. The final proposed layout as shown on **Figure 7.1** therefore embeds design-based mitigation to avoid disturbance of known cultural heritage assets.

Predicted Construction Effects

7.42 Taking account of the embedded design mitigation, and with reference to **Figure 7.1**, it is predicted that the Proposed Development may have a direct impact on two assets: SLR46 and SLR47 (unclassified structures of local importance) without mitigation being implemented. SLR92 and SLR93 (undated cairns) may also be impacted and therefore as a precaution these are included in the mitigation strategy discussed below.

Mitigation

7.43 Mitigation is proposed in the form of fencing off these four assets during construction as outlined in **Table 7.7** to reduce the significance of effect to none.

Table 7.7: Proposed Mitigation

Asset	Infrastructure	Cultural Heritage Significance	Magnitude of Impact	Significance of Effect	Proposed Mitigation
SLR46 (MHG5045)	Track	Local	Nil	None	Due to the proximity to the proposed track, it is proposed that fencing is installed around the asset.
SLR47 (MHG5047)	Track	Local	Nil	None	Due to the proximity to the proposed track, it is proposed that fencing is installed

Asset	Infrastructure	Cultural Heritage Significance	Magnitude of Impact	Significance of Effect	Proposed Mitigation
					around the asset.
SLR92	Temporary Hardstanding accessing T1	Negligible	Nil	None	Due to the proximity to the proposed temporary hardstanding, it is proposed that fencing is installed around the asset.
SLR93	Track	Negligible	Nil	None	Due to the proximity to the proposed track, it is proposed that fencing is installed around the asset.

Residual Effects

7.44 The completion of the archaeological mitigation programme outlined above would prevent direct adverse impact upon known archaeological remains. No residual effects are predicted.

Operational Effects of the Proposed Development

7.45 Impact to assets through setting change have been scoped out of this assessment. This was agreed with HES and THCHET through their scoping responses in October 2023 and November 2023 respectively. These scoping responses were informed by information considered as part of previous applications (**20/00013/FUL & 21/05767/FUL**).

7.46 For information only, a ZTV is presented as **Figure 7.2** and comparative wirelines in respect to assets referenced by consultees in respect to these previous applications are presented to show the comparison between the consented development and Proposed Development in **Figures 7.3** and **7.4¹**. These relate to Barpann Cairns (**SM893**) and Dun Arkaig (**SM13662**). The previous assessment for the consented development (as noted in Chapter 11 of the Ben Sca Wind Farm EIA Report (SLR, 2020a), Ben Sca Wind Farm Supplementary Information (SI) Report (SLR, 2020b) and Technical Appendix F of the Ben Sca Wind Farm Extension (SLR, 2021)) established that there would be no impact to these monuments through setting change, and this remains the case for the Proposed Development.

¹ Note that cumulative wind developments are not shown on these comparative wirelines as no cumulative effects are predicted as noted in paragraph 7.47.

Residual Effects

7.47 No residual effects are predicted.

Cumulative Effects

7.48 No common receptors with other wind farm applications are predicted and since no impacts on monuments is predicted from the Proposed Development, no cumulative effects are predicted.

Summary and Statement of Significance

7.49 This assessment has considered the potential impact to the archaeology and cultural heritage resource through a review of the baseline collected for the Ben Sca Wind Farm and Ben Sca Wind Farm Extension. This has been supplemented by a review of additional sources in order to determine the presence of heritage assets which may be affected by the Proposed Development.

7.50 The assessment has primarily considered the potential for direct impact on heritage assets within the site boundary, indirect impacts through setting change having been scoped out of assessment in agreement with statutory consultees.

7.51 It is predicted that there would be no impact on non-designated assets within the site boundary. This would be achieved through the fencing off of assets that lie within close proximity to the infrastructure as a preventive measure.

7.52 There are no predicted impacts. It is considered that the Proposed Development would be in line with Policy 7 (h) of NPF4 (2023).

References

Legislation

- The Ancient Monuments and Archaeological Areas Act 1979.
- The Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997.
- The Historic Environment (Amendment) (Scotland) Act 2011 (this includes amendments to the above).

Policy

- HES (2019). Historic Environment Policy for Scotland (HEPS).
- HES (2019). Historic Environment Circular 1.
- Scottish Government (2023). National Planning Framework 4 (NPF4).
- Scottish Government (2023). Our Past, Our Future: The Historic Environment Strategy for Scotland.
- Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017

Guidance

- ClfA (2014a). ClfA's Standard and Guidance for Historic Environment Desk Based Assessment (which gives best practice for the execution of desk based assessments).
- (ClfA (2014b). ClfA's Code of Conduct.
- HES (2019). HES's Designation, Policy and Selection Guidance.
- HES (2020). Managing Change in the Historic Environment: Setting.
- Scottish Government (2011). Planning Advice Note Planning and Archaeology PAN 2/2011.
- SNH (Naturescot) and HES (2019). Environmental Impact Assessment Handbook.

Consented Development EIA Reports

- SLR Consulting Ltd (2020a). Ben Sca Wind Farm EIA Report, January 2020
- SLR Consulting Ltd (2020b). Ben Sca Wind Farm Supplementary Information (SI) Report, August 2020.
- SLR Consulting Ltd (2021). Ben Sca Wind Farm Extension EIA Report, November 2021.

Figures

Figure 7.1: Gazetteer Assets

Figure 7.2: ZTV and Designations

Figure 7.3: Barpann Cairns (SM893) Comparative Wirelines

Figure 7.4: Dun Arkaig (SM13662) Comparative Wirelines

Appendices

Technical Appendix 7.1: Cultural Heritage Gazetteer