

Chapter 9

Cultural Heritage

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Glossary

| Term | Definition |
|-----------------------|---|
| Burnt mound | A mound of fire-cracked stone, often set beside a stream and including a trough or pit which may have been lined with clay, wood or stone. Assumed to be a location where heated stones were used to boil water for cooking purposes. |
| Cairn | A monument featuring a bank or mound constructed primarily of stone. |
| Clearance Cairn | An irregularly constructed, generally unstructured, mound of stones. Often, but not necessarily, circular. Normally a by-product of field clearance for agricultural purposes. |
| Cup and ring markings | A stone or rock outcrop bearing roughly hemispherical depressions and/or concentric annular or penannular grooves. Complex designs also occur. |
| Hut circle | A low, circular or oval bank of turf, earth or stone, which represents the remains of a roundhouse of later prehistoric date. |
| Sheep bucht | A sheepfold, especially one in which to keep ewes at milking time. |
| Sheep shelter | A structure or enclosure, usually in a remote or upland location, which provides shelter for sheep in severe weather conditions. |
| Sheepfold | An enclosure for collecting, sorting and controlling sheep. |
| Shepherds cairn | A cairn of no great antiquity, erected to mark a particular spot in the landscape, often used as a marker or directional aid in upland areas. |
| Shieling hut | A small dwelling of stone or turf, occupied on a seasonal basis by people tending animals on upland pastures. |
| Shooting butt | Position often screened by earth, stone or wood from which game is shot. |
| Small cairns | A group of cairns in close proximity to each other, the majority of which are clearance |

cairns.

List of Abbreviations

List and describe your abbreviations here.

| Abbreviation | Description |
|--------------|--|
| CA | Conservation Area |
| CFA | CFA Archaeology Ltd |
| CIfA | Chartered Institute for Archaeologists |
| DGC | Dumfries and Galloway Council |
| DGCAS | Dumfries and Galloway Council Archaeological Service |
| EIA | Environmental Impact Assessment |
| EIAR | Environmental Impact Assessment Report |
| GDL | Garden and Designed Landscape (Inventory) |
| HER | Historic Environment Record |
| HES | Historic Environment Scotland |
| LB | Listed Building |
| SLC | South Lanarkshire Council |
| SM | Scheduled Monument |
| WoSAS | West of Scotland Archaeology Service |
| ZTV | Zone of Theoretical Visibility |

9.1 STATEMENT OF COMPETENCE

9.1.1 The cultural heritage chapter has been prepared by George Mudie MA (Hons) FSA Scot MCIfA, of CFA Archaeology Ltd (CFA) based in Musselburgh, East Lothian, a Registered Organisation (RO) of the Chartered Institute for Archaeologists (CIfA). Mr Mudie is Principal Consultant with CFA and is a Member of the Chartered Institute for Archaeologists (MCIfA). He has over 20 years full-time experience of producing Environmental Impact Assessments (EIAs) for renewable energy developments, and for other industrial and commercial developments across the UK.

9.2 INTRODUCTION

9.2.1 This chapter considers the likely significant effects of the proposed Daer Wind Farm Development (Proposed Development) on cultural heritage (historic environment sites and features, archaeology and built heritage); hereafter referred to as 'heritage assets'. The assessment has been carried out using information provided by Historic Environment Scotland (HES), the West of Scotland Archaeology Service (WoSAS) on behalf of South Lanarkshire Council (SLC) and Dumfries and Galloway Council Archaeology Service (DGCAS) on behalf of Dumfries and Galloway Council (DGC).

9.2.2 The specific objectives of the Chapter are to:

- Describe the cultural heritage baseline.
- Describe the assessment methodology and significance criteria used in completing the impact assessment.
- Describe the potential effects, including direct, indirect and cumulative effects.
- Describe the mitigation and, where appropriate, monitoring measures proposed to address likely significant effects.
- Assess the residual effects remaining following the implementation of mitigation.

9.2.3 This Chapter is supported by the following figures and technical appendices:

- Figure 9.1: Cultural Heritage: Inner Study Area.
- Figure 9.2: Cultural Heritage: Primary Proposed Access Route.
- Figure 9.3: Cultural Heritage: Outer Study Area.
- Figure 9.4: Cultural Heritage: Cumulative Developments.
- Figures 9.5 to 9.15: Cultural Heritage Visualisations.
- Technical Appendix 9.1: Heritage Assets within the Inner Study Area.
- Technical Appendix 9.1: Heritage Assets along the Primary Proposed Access Route.
- Technical Appendix 9.3: Heritage Assets within Outer Study Area and within 5 km of the Proposed Development.
- Technical Appendix 9.4: Heritage Assets within Outer Study Area and between 5 km and 10 km from the Proposed Development.

9.2.4 Where relevant, cross-reference is also made to Landscape and Visual Impact Assessment (LVIA) viewpoints, where these coincide with the locations of heritage assets in the wider landscape.

9.2.5 Figures and technical appendices are referenced in the text where relevant.

9.3 LEGISLATION AND POLICY CONTEXT

Legislation

9.3.1 The scope of the assessment has been informed by the following legislation:

- The Ancient Monuments and Archaeological Areas Act 1979¹.
- Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 (as amended up to 2020)².
- Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013³
- The Electricity Act (1989) Schedule 9 (paragraph 3)⁴.
- Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017⁵.

Planning Policy

9.3.2 Of relevance to the cultural heritage assessment presented within this chapter, regard has been had to the following policies:

- National Planning Framework for Scotland 3 (NPF3) (Scottish Government, 2014)⁶.
- Scottish Planning Policy (SPP) (Paragraphs 135-151). (Scottish Government, 2014)⁷
- Historic Environment Policy for Scotland (HEPS) (HES, 2019)⁸.
- Designation Policy and Selection Guidance (HES, 2019)⁹.
- Planning Advice Note 1/2013 (PAN 1): Environmental Impact Assessment (Scottish Government, 2013)¹⁰.
- Planning Advice Note 2/2011 (PAN 2): Planning and Archaeology (Scottish Government, 2011)¹¹.
- Dumfries and Galloway Council (DGC) Local Development Plan (LDP2) 2019¹².
 1. Policy HE1: Listed Buildings
 2. Policy HE2: Conservation Areas
 3. Policy HE3: Archaeology
 4. Policy HE4: Archaeological Sensitive Areas
 5. Policy HE6: Gardens and Designed Landscapes
- LDP2 Draft Supplementary Guidance (2019): Historic Built Environment¹³

¹ HM Government (1979) Ancient Monuments and Archaeological Areas Act 1979 (reprinted 1996), HMSO, London

² HM Government (1997) Planning (Listed Buildings and Conservation Areas (Scotland) Act 1997 (as amended up to 2020) HMSO London

³ Scottish Government (2013) Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2008, Edinburgh

⁴ HM Government (1989). Electricity Act 1989, HMSO, London

⁵ Scottish Government (2017). Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017, Edinburgh

⁶ Scottish Government (2014) National Planning Framework for Scotland 3, Edinburgh

⁷ Scottish Government (2014). Scottish Planning Policy. Edinburgh

⁸ HES (2019). Historic Environment Policy for Scotland. Edinburgh

⁹ HES (2019). Designation Policy and Selection Guidance, Edinburgh

¹⁰ Scottish Government (2013) Planning Advice Note (PAN) 1/2013: Environmental Impact Assessment, Edinburgh

¹¹ Scottish Government (2011) Planning Advice Note (PAN) 2/2011: Planning and Archaeology, Edinburgh

¹² Dumfries and Galloway Council (2019) Local Development Plan (LDP2), Dumfries

- South Lanarkshire Local Development Plan (LDP) 2015; Policy 15 Natural and historic environment¹⁴;
 - South Lanarkshire Local Development Plan (LDP) 2015; Supplementary Guidance 9: Natural and historic Environment¹⁵;
1. Policy NHE 2 Scheduled monuments and their setting
 2. Policy NHE3 Listed buildings
 3. Policy NHE6 Non-scheduled archaeological sites and monuments

Guidance

9.3.3 Recognition has been taken of the following best practice guidelines/guidance:

- Environmental Impact Assessment Handbook (SNH and HES, 2018)¹⁶.
- Standard and Guidance for Historic Environment Desk-Based Assessment (Chartered Institute for Archaeologists, 2014)¹⁷.
- Managing Change in the Historic Environment: Setting (HES, 2016)¹⁸.

9.4 SCOPING AND CONSULTATION

9.4.1 Table 9.1 summarises the consultation responses received from consultees and provides information on where and how they have been addressed in the assessment, where relevant.

Table 9.1: Consultations

| Consultee | Response | Action |
|-----------------------------------|---|---|
| ECU (March 2019) Scoping Opinion | Provided responses from statutory consultees including HES, SLC and DGC. | See below for individual respondents' comments. |
| HES (30/01/2019) Scoping Response | Content with the proposed treatment of Cultural Heritage outlined in Section 14 of the Scoping Report. | Noted. The assessment has followed a methodology (Section 9.5) that was agreed through post-scoping consultations with HES, DGCAS and WoSAS (see below). |
| | Suggested that the applicant's heritage consultant identify those sites which have potential interrelationships with key elements of the proposed windfarm. | Noted. That assessment has been carried out and effects assessed in Technical Appendices 9.3 and 9.4 and discussed in Section 9.7. |

¹³ Dumfries and Galloway Council (2019) LDP2: Draft Supplementary Guidance, Dumfries

¹⁴ South Lanarkshire Council (2015) South Lanarkshire Local Development Plan (LDP)

¹⁵ South Lanarkshire Council (2015) LDP Supplementary Guidance 9

¹⁶ SNH and Historic Environment Scotland (2018). Environmental Impact Assessment Handbook, Edinburgh

¹⁷ Chartered Institute for Archaeologists (2014) [updated 2017] Standard and guidance for historic environment desk-based assessment, London

¹⁸ HES (2016). Managing Change in the Historic Environment: Setting, Edinburgh

SLC (08/03/2019) Scoping Response

Noted that the proposed methodology is adequate for assessing direct issues.

Noted.

The assessment has followed a methodology (Section 9.5) that was agreed through post-scoping consultations with HES, DGCAS and WoSAS (see below).

Noted that although at high altitude the area concerned has a wealth of recorded archaeology. Previous survey by Biggar Museum and volunteers has demonstrated that this is a rich area for potential buried archaeological remains of prehistoric and medieval date.

Noted.

The results of previous field work and data from the DGC and SLC Historic Environment Records (HER) coupled with additional field survey has further enhanced the archaeological record within the Proposed Development Area.

Suggested that a 1 km inner study area should be used to help assess direct issues and a 10 km outer study area used for assessing setting issues.

Noted.

Data from the HER was obtained from WoSAS and DGC for a 10 km outer study area to inform the assessment of the archaeological potential of the Proposed Development Area and to identify assets that should be included in the setting assessment.

Advised that the methodology for setting assessment should address on effects on setting rather than effects on cultural significance.

Noted.

Follow up post-scoping consultation was undertaken with HES, WoSAS and DGC to agree the scope and methodology for the assessment and to agree visualisation viewpoints (see Table 9.5).

DGC (27/02/2019) DGCAS memo (25/04/2019) Scoping Response

Section F of the SPG contains guidance on Historic Environment and Cultural Heritage and must be considered.

Noted

The advice and policies in Chapter 3 (Historic Environment) Supplementary Guidance 9 (Natural and Historic Environment) have been taken into account in the assessment.

Nationally significant sites (including unscheduled sites considered by the local authority to be of national significance) out to 10 km should be assessed. Non-Inventory Designed Landscapes (NIDLs) and Archaeologically Sensitive Areas (ASAs) within 10 km should be

Noted.

The assessment has followed a methodology (Section 9.5) that was agreed through post-scoping consultations with HES, DGCAS and WoSAS (see below).

| | | |
|--|--|--|
| | included. | |
| | Regionally significant historic assets within 5 km should be assessed. | Noted. Regionally significant sites, as identified in HER records, within 5 km of Proposed Development have been included in the assessment (see Technical Appendix 9.3) |
| | Comprehensive walk-over survey will be required to assess the extent and condition of historic assets within the proposed development site. | Noted. A walk-over survey of the Inner Study Area (Figure 9.1) was carried out in February 2020. |
| | A finalised list of visualisations for inclusion in the EIA should be agreed with the Council Archaeologist. | Noted. The visualisations presented in support of the assessment (Table 9.5) were agreed through post-scoping consultations with HES, DGCAS and WoSAS (see below). |
| DGCAS (17/04/2020) post-scoping consultation | Content with the proposed assessment methodology and the tiered approach to assessment. | Noted. The assessment has been undertaken using the approach agreed through post-scoping consultations with HES, DGCAS and WoSAS (Section 9.5). |
| | Agree that the 10 km outer study area is sufficient for effects on the settings of heritage assets and confirmed that there are no specific assets beyond the 10 km that need be included in the assessment. | Noted. No assets beyond the 10 km Outer Study Area have been identified as having settings sensitive to impacts from the Proposed Development. |
| | Content with the proposed visualisation viewpoints. | Noted. Visualisations are provided to support of the assessment (see Table 9.5) and are referenced in the tabulated assessment in Technical Appendices 9.3 and 9.4. Where relevant to the assessments, reference is also made to LVIA photomontages. |
| WoSAS (12/03/2020) (post-scoping consultation) | Content with the proposed 10 km Outer Study Area. | Noted. |
| | Content with the proposed tiered approach to the assessment | Noted. |
| | Content with proposed methodology for assessment of | Noted. |

| | | |
|--|---|--------|
| | effects. | |
| | Content with the list of visualisations and required to see no additional viewpoints. | Noted. |

9.5 METHODOLOGY

Study Area

9.5.1 Three study areas have been used for the assessment:

- The Inner Study Area (Figure 9.1): the Proposed Development Area (as constituted at the Scoping stage and which has subsequently been reduced in extent) formed the Inner Study Area for the identification of heritage assets that could receive direct effects arising from the construction of the proposed development. Figure 9.1 shows the Proposed Development Area, the Proposed Development layout and the locations of heritage assets identified and described in the gazetteer (Technical Appendix 9.1). Information from the HER within a buffer of 1 km has also been taken into account for assessment of the archaeological potential within the Proposed Development Area.
- The Proposed Access Route Corridor (Figure 9.2): a 100 m wide corridor along the route of the primary proposed access, from the A701 at Mosslands to the Proposed Development site at Rivox Fell, forms the study area for the identification of heritage assets that could receive direct effects arising from upgrading and use of the existing forestry road network. Figure 9.2 shows the Proposed Access Route Corridor and the locations of heritage assets identified and described in the gazetteer (Technical Appendix 9.2).
- The Outer Study Area (Figure 9.3; Appendices 9.3 and 9.4): a 10 km study area, extending from the outermost proposed turbine locations, has been used for the identification of cultural heritage assets whose settings may be affected by the Proposed Development (including cumulative effects). The study area extent was agreed by statutory consultees as being appropriate and no assets beyond 10 km were identified, either by the consultees, or through preliminary assessment of the wider blade tip Zone of Theoretical Visibility (ZTV), as requiring inclusion in the assessment. Figure 9.3 shows the Proposed Development, together with the blade tip height ZTV and the location of heritage assets up to 10 km from the Proposed Development from which there would be a theoretical view of the turbines and which are included in the assessment. Lists of these heritage assets are provided in Technical Appendices 9.3 and 9.4, which also provide tabulated summary assessments of the predicted impacts on their settings on a case-by-case basis.

Desk Based research and Data Sources

9.5.2 The following information sources were consulted as part of the desk-based assessment:

- HES Spatial Data Warehouse (HES, 2020)¹⁹: provided up-to-date data on the locations and extents of Scheduled Monuments, Listed Buildings, Conservation Areas, Inventory status Garden and Designed Landscapes and Inventory status Historic Battlefields.
- WoSAS Historic Environment Record (HER): a digital database extract was obtained in February 2020 for an area extending to 10 km from Inner Study Area, in order to inform an assessment of the archaeological potential of the Proposed Development Area and to identify assets that should be included in the setting assessment.

¹⁹ Historic Environment Scotland Spatial Data Warehouse. Available at: <http://portal.historic-scotland.gov.uk/spatialdownloads>. Accessed: September 2020

- DGC Historic Environment Record (HER): a digital database extract was obtained in March 2020 for an area extending to 10 km from Inner Study Area, in order to inform an assessment of the archaeological potential of the Proposed Development Area and to identify assets that should be included in the setting assessment.
- The National Record of the Historic Environment (NHRE) database (HES, 2020)²⁰: for any information additional to that contained in the HER
- Relevant bibliographic references were consulted to provide background and historic information.
- Map Library of the National Library of Scotland: for Ordnance Survey maps and other historical map resources.
- Historic Land-Use Assessment Data for Scotland (HLAMap)²¹ (HES, 2020): provided information on the historic land use character of the Proposed Development Area.

Field Survey

- 9.5.3 A walk-over field survey of the Inner Study Area was carried out in February 2020 with the following aims:
- to assess the present baseline condition of the heritage assets identified through the desk-based assessment;
 - to identify any further features of cultural heritage interest not detected from the desk-based assessment; and
 - to assess the Inner Study Area for its potential to contain currently unrecorded, buried archaeological remains.
- 9.5.4 Identified sites were recorded and photographed and their positions (and where appropriate their extents) were logged using a Global Positioning System (GPS). The survey data has been compiled in a GIS and will be provided to DGCAS for inclusion in Historic Environment Record (HER).
- 9.5.5 The baseline character and assessed relative sensitivity of the heritage assets identified within the Inner Study Area through desk-based assessment and field survey is set out in Technical Appendix 9.1: Heritage Assets within Inner Study Area and Technical Appendix 9.2: Heritage Assets along the Primary Proposed Access Route. Interpretative statements on the relative importance and sensitivity of heritage assets are included below in the Baseline Conditions section (Section 9.6).
- 9.5.6 Field visits were also undertaken to heritage assets in the Outer Study Area in February 2020 in order to assess their baseline settings. The baseline setting of each relevant receptor or related group of receptors has been characterised on a case-by-case basis, based upon its properties and location, and takes into account the factors set out in guidance on setting issued by HES (HES, 2016²²) (i.e. the location and orientation of the site; importance of views of or from principal facades; the importance, if applicable, of designed settings; and, any obvious views or vistas).

Limitations and Assumptions

- 9.5.7 The desk-based assessment draws on the records in the HER, provided in a digital GIS dataset acquired in November 2019 ahead of the field survey. It is assumed that those records were up to date at the time of acquisition.
- 9.5.8 The desk-based assessment draws on evidence taken from historic maps and the grid co-ordinates attributed to those taken from them are approximations, based on a professional interpretation of topographic relationships

²⁰ National Record of the Historic Environment. Available at: <http://pastmap.org.uk/>. Accessed: January 2020

²¹ Historic Land-Use Assessment Data for Scotland (HES 2019c). HLAMap. Available at: <http://hlamap.org.uk/>. Accessed: January 2020.

²² HES (2016). Managing Change in the Historic Environment: Setting, Edinburgh

derived from examination of the maps. Where possible, these variations have been evaluated using modern maps and modern aerial photography to compensate for the historic mapping inaccuracies and to provide an accurate grid co-ordinate and, where possible, extent for the assets identified from such sources.

- 9.5.9 Designated heritage assets within the Outer Study Area have been identified and relevant data downloaded from the HES database in September 2020. That data is assumed to have been current and up to date at the time of acquisition.

Assessment of Potential Effects

- 9.5.10 The effects of the Proposed Development on heritage assets have been assessed based on their type (direct effects, impacts on setting and cumulative effects) and nature (beneficial or adverse). The assessment considers the relative sensitivity of the heritage asset and its setting and the magnitude of the predicted impact. The assessment follows the approach set out in the 2018 SNH/HES Guidance²³.
- Adverse effects are those that detract from or reduce cultural significance or special interest of heritage assets.
 - Beneficial effects are those that preserve, enhance or better reveal the cultural significance or special interest of heritage assets

Assigning Heritage Sensitivity to Assets

- 9.5.11 Cultural heritage assets are given weight through the designation process. Designation ensures that sites and places are recognised by law through the planning system and other regulatory processes. The level of protection and how a site or place is managed varies depending on the type of designation and its laws and policies (HES, 2019²⁴). Table 9.2 summarises the relative sensitivity of key heritage assets relevant to the proposed Development.

Table 9.2: Sensitivity of Heritage Assets

| Sensitivity of Asset | Definition/Criteria |
|----------------------|---|
| High | Assets valued at a national level, including: Scheduled Monuments Category A Listed Buildings Inventory Gardens and Designed Landscapes Inventory Historic Battlefields Non-designated archaeological sites that meet the relevant criteria for designation |
| Medium | Assets valued at a regional level, including: Archaeological sites and areas that have regional value (contributing to the aims of regional research frameworks) Archaeologically Sensitive Areas (ASA) (where these are identified in Local Authority records) Non-Inventory Designed Landscapes (NIDL) (where these are identified in Local Authority records) Non-Statutory Register (NSR) Archaeological Sites Category B Listed Buildings Conservation Areas |

²³ SNH/HES (2018). Environmental Impact Assessment Handbook, Edinburgh

²⁴ HES (2019). Designation Policy and Selection Guidance, Edinburgh

| | |
|------------|---|
| Low | Assets valued at a local level, including: Archaeological sites that have local heritage value Category C listed buildings Unlisted historic buildings and townscapes with local (vernacular) characteristics |
| Negligible | Assets of little or no intrinsic heritage value, including: Artefact find-spots (where the artefacts are no longer in situ and where their provenance is uncertain) Poorly preserved examples of particular types of minor historic landscape features (e.g. quarries and gravel pits, dilapidated sheepfolds, etc) |

Criteria for Assessing the Magnitude of Change

9.5.12 The magnitude of impact (adverse or beneficial) has been assessed in the categories, high, medium, low and negligible as described in Table 9.3

Table 9.3: Magnitude of Impact

| Magnitude of Impact | Definition/Criteria | |
|---------------------|---|---|
| | Adverse | Beneficial |
| High | Changes to the fabric or setting of a heritage asset resulting in the complete or near-complete loss of the asset's cultural significance. Changes that substantially detract from how a heritage asset is understood, appreciated and experienced. | Preservation of a heritage asset in situ where it would otherwise be completely or almost completely lost. Changes that appreciably enhance the cultural significance of a heritage asset and how it is understood, appreciated and experienced. |
| Medium | Changes to those elements of the fabric or setting of a heritage asset that contributes to its cultural significance such that this quality is appreciably altered. Changes that appreciably detract from how a heritage asset is understood, appreciated and experienced. | Changes to important elements of a heritage asset's fabric or setting, resulting in its cultural significance being preserved (where this would otherwise be lost) or restored. Changes that improve the way in which the heritage asset is understood, appreciated and experienced. |
| Low | Changes to those elements of the fabric or setting of a heritage asset that contribute to its cultural significance such that this quality is slightly altered. Changes that slightly detract from how a heritage asset is understood, appreciated and experienced. | Changes that result in elements of a heritage asset's fabric or setting detracting from its cultural significance being removed. Changes that result in a slight improvement in the way a heritage asset is understood, appreciated and experienced. |
| Negligible | Changes to fabric or setting of a heritage asset that leave its cultural | |

significance unchanged and do not affect how it is understood, appreciated and experienced.

Assessing Significance

9.5.13 The predicted significance of the effect was determined through a standard method of assessment considering both the sensitivity of the asset (Table 9.2) and magnitude of predicted impact (adverse or beneficial) (Table 9.3) and detailed in Table 9.4 below. Where two outcomes are possible through application of the matrix, professional judgment supported by reasoned justification, has been employed to determine the level of significance. Major and moderate effects are considered significant in the context of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017²⁵ (EIA Regulations). Minor and Negligible effects are 'not significant'.

Table 9.4: Significance of Effect

| Magnitude of Impact | Sensitivity of Asset | | | |
|---------------------|----------------------|------------------|------------------|------------------|
| | High | Medium | Low | Negligible |
| High | major | major/moderate | moderate/minor | minor |
| Medium | major/moderate | moderate | minor | minor/negligible |
| Low | moderate/minor | minor | minor/negligible | minor/negligible |
| Negligible | minor | minor/negligible | minor/negligible | negligible |

Cumulative Effects

9.5.14 The Proposed Development has no potential to give rise to cumulative direct impacts in combination with any other proposed development.

9.5.15 The assessment of cumulative effects on heritage assets has been based upon consideration of the impacts of the Proposed Development on the settings of assets with statutory and non-statutory designations within 10 km of the Outer Study Area in addition to the likely effects of other operational, consented and in planning developments.

9.5.16 Figure 9.4 shows the proposed Development in its wider landscape context, together with the blade tip height ZTV, the locations of the heritage assets within 10km of the outermost turbines from which there is predicted theoretical visibility of one or more turbines, and the locations of other wind energy development in the wider area. The cumulative schemes included in the assessment reflect those agreed with consultees and listed in Chapter 5: Landscape and Visual Impact Assessment.

9.6 BASELINE CONDITIONS

Heritage Assets within Inner Study Area (Figure 9.1; Appendix 9.1)

9.6.1 Numbers in brackets in the following sections relate to assets described in detail in Technical Appendix 9.1, the locations of which are shown on Figure 9.1.

²⁵ Scottish Government (2017). Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017, Edinburgh.

Prehistoric Archaeology

Artefacts

9.6.2 There are seven locations within Inner Study Area where stone-tool artefacts have been recorded. These finds include Mesolithic flint and chert knapping sites (7, 8, 11 & 12), and other find-spots (15, 97, 110) of worked stone tools. Finds of later date include several Bronze Age barbed-and-tanged arrowheads (19). Although the discovered artefacts have been removed from their find-spots, their discovery is nevertheless indicative of early prehistoric activity sites, possibly including Mesolithic occupation sites along the various watercourses that feed into the Dear Water (now Dear Reservoir), which is a tributary of the River Clyde. As such, these find-spots are assessed to be of archaeological value at a regional level (having the potential for further archaeological discoveries in their immediate area that could add substantially to regional research agendas). These find-spot locations are therefore assessed as being of medium sensitivity.

Rock Art

9.6.3 A possible cup marked rock (28) is recorded in the HER, comprising a bedrock outcrop with weathering that resembles cup-mark (Ward, 2002²⁶). Field survey for this assessment found that at least one of the cup-marks appears to be a genuine example. Accordingly, the bedrock outcrop is considered to potentially be a genuine, but not complex, example of rock art and is assessed to be of heritage value at the local level and of low sensitivity.

Settlement

9.6.4 Possible hut platforms (6, 29) are recorded on the south flank of Sweetshaw Brae, above Sweetshaw Foot Farm, in an area where there is also evidence of medieval/post-medieval farmsteads (27). As a cluster of possible hut platforms representing prehistoric settlement, and where there may be archaeological evidence of domestic activity and dating evidence, these platforms are assessed as being potentially of heritage value at the regional level and of medium sensitivity.

Burnt Mounds

9.6.5 There are eight possible burnt mounds, in five groups (1(b), 4, 9, 16 and 17) recorded in the HER within Inner Study Area. Typically of Bronze Age date, burnt mounds can, in some cases, be shown to be of medieval date and to have complex histories of use and re-use (Anthony, 2003²⁷; ScARF, 2020²⁸). As assets that have the potential to hold archaeological evidence relating to their use and date the burnt mounds are assessed as being of heritage value at a regional level and of medium sensitivity.

Ring cairns

9.6.6 The HER records that four ring-cairns (13), ranging in size from 4m to 5m in diameter, were recorded by survey in 1992 (Ward, 1992²⁹). The cited location is in the reservoir and field survey did not find any remains of these features; it is possible that they lie below the current water level. These possible ring cairn features of uncertain provenance are assessed as being of heritage value at a local level and of low sensitivity.

²⁶ Ward, T. (2002) 'Daer Valley, South Lanarkshire (Crawford parish), survey; excavation', Discovery and Excavation, Scotland, Edinburgh

²⁷ Anthony, I M C 2003 Luminescence Dating of Scottish Burnt Mounds: New Investigations in Orkney and Shetland Unpublished PhD Thesis, University of Glasgow

²⁸ <https://scarf.scot.national/scarf-bronze-age-panel-report/3-lifeways-and-lifestyles/3-3-settlement-landuse-and-resources/3-3-1-burnt-mounds/>

²⁹ Ward, T. (1992) Upper Clydesdale Through The Ages: The M74 Project (Archaeology): The Clydesdale Experience. Biggar

Cairns

9.6.7 A group of three small cairns (1(a) (17(a-c))) is recorded on the west-facing slope of Beld Knowe, with another cairn (2) located 400 m to the south. As possible prehistoric burial cairns, these cairns are assessed as being of heritage value at a regional level and are of medium sensitivity.

9.6.8 A cairn recorded on Whiteside Hill (33) appears to be a small enclosure that has been infilled. It could be of prehistoric date but could equally be related to post medieval farming practice. It is assessed as being of value at a local level and of low sensitivity.

Medieval and Post Medieval

Farmsteads

9.6.9 Two un-named farmstead (3 and 27), on slopes of Sweetshaw Brae, on the east side of Dear Reservoir, were recorded by survey (Ward 1992³⁰; Ward, 2002³¹). These farmsteads do not appear on any historic Ordnance Survey maps but probably have their origins prior to the 18th century. A settlement is marked at this location on Blaeu's map (1654) and it is possible that the remains described are those of a 17th century (or earlier) township that may have been abandoned in favour of the 19th century farm at 'Nether Sweetshaw', which is recorded on the 1st edition map but which now lies under Dear Reservoir. As potentially being the remains of a 17th century, or earlier, township, likely to preserve archaeological evidence of their occupation, use and abandonment, and as surviving remains of the historic landscape, these two farmsteads are assessed as being of heritage value at the regional level and of medium sensitivity

9.6.10 'Whiteholm' farm (79) is recorded on the Ordnance Survey 1st edition map (1861) with an associated large enclosure (46) and a sheepfold (78). Field survey has also recorded remains of an old turf bank (91) at this location. 'Upper Sweetshaw' farm (45) is depicted on the Ordnance Survey 1st and 2nd edition maps (Lanarkshire, 1863, Sheet LIII & 1896, Sheet LII.NE, 6 inches to 1 mile) just east of the Black Burn. An un-named farmstead is shown at this location on Roy's 'Military Survey of Scotland' map (1747-55) and 'Sweetshaw' is a named farmstead on Blaeu's Atlas (1654). 'Crookburn' farm (49) is depicted on the Ordnance Survey 1st edition map (Lanarkshire, 1863, Sheet LII) clustered around a bend of the Daer Water. A farmstead at this location is named as 'Kirkhope' on Roy's map, and is also represented on Blaeu's Atlas. These three other farmsteads are remains of 19th century date and no evidence of any earlier remains was found during field surveys. Accordingly, as part of the historic landscape, they are all assessed as being of heritage value at the local level and of low sensitivity.

Other Farm Buildings

9.6.11 There are 14 other farm buildings (20(a), 21(a & b), 23, 27(b), 27(e), 32(a), 34, 57 and 76(a-e)) recorded across Inner Study Area. One building (23) was partially excavated in 2005 but did not reveal any dating evidence (Ward, 2005³²). Another (34) has been fully excavated, revealing evidence of 18th and 19th century activity. The others survive in variable conditions but retain some archaeological value, potentially holding evidence of their function and occupation. Accordingly, as part of the historic landscape, they are all assessed as being of heritage value at the local level and of low sensitivity.

Clearance Cairns

9.6.12 Ward (1992³³) recorded numerous grass-covered clearance cairns (3(a), 5, 10, 21(c), 24, 30, and 32(b)), of varying size and shape, spread along the south facing slope of Sweetshaw Brae. These all lie within areas

³⁰ Ward, T. (1992) Upper Clydesdale Through The Ages: The M74 Project (Archaeology): The Clydesdale Experience. Biggar

³¹ Ward, T. (2002) 'Daer Valley, South Lanarkshire (Crawford parish), survey; excavation', Discovery and Excavation, Scotland, Edinburgh

³² Ward, T. (2005) 'Daer Valley Project, South Lanarkshire (Crawford parish), excavation; survey', DES, Vol 6, 2005, p134

³³ Ward, T. (1992) Upper Clydesdale Through The Ages: The M74 Project (Archaeology): The Clydesdale Experience. Biggar

where there is evidence of farming settlement of at least 17th century date and it is likely that they are associated with the clearance of land to improve pasture grazing or facilitate agriculture. Individually the features described are of value at a local level and of low sensitivity but as components of farmsteads, or through association with other buildings, they are attributed heritage value as part of the farmstead or buildings with which they are associated. Accordingly, as part of the historic landscape, they are all assessed as being of heritage value at the local level and of low sensitivity.

Sheepfolds and Shielings

9.6.13 There are 23 sheepfolds (18, 38, 40, 42, 43, 44, 46, 47, 48, 51-54, 58, 75, 77, 78, 80, 81, 83, 89, 95 and 98) and five sheep shelters (36, 37, 39, 41, and 111) across Inner Study Area, many of which are recorded on the first edition Ordnance Survey map (1863) comprising various shapes, sizes and functions as well as levels of preservation. These heritage assets demonstrate the wider use and exploitation of this upland landscape for pastoral farming.

9.6.14 Nineteen of the sheepfolds (18, 38, 40, 43, 44, 46, 51-54, 58, 75, 77, 80, 81, 83, 89, 95 and 98) and all five shelters (36, 37, 39, 41, and 111) survive as visible remains in good to fair condition and as minor elements of historical farming practice they are assessed as being of heritage value at a local level and of low sensitivity.

9.6.15 Four of the sheepfolds (42, 47, 48 and 78) no longer survive and are assessed as being of negligible heritage value and of negligible sensitivity.

Shielings

9.6.16 Five shielings (86, 90(a), 101, 113 and 114) have been found across Inner Study Area. These structures, which are surviving remains associated with seasonal pasturage, are assessed as being of heritage value at a local level and of low sensitivity.

Fields and Enclosures

9.6.17 Three enclosures (14, 74 and 88) recorded on Ordnance Survey 1st edition maps are likely to have been stock enclosures.

9.6.18 One (14) now lies submerged within Daer Reservoir and is assessed to be of negligible heritage value and negligible sensitivity.

9.6.19 Two others (74 and 88) survive defined by partly tumbled drystone walls. These are most likely to have been stock enclosures and are assessed as being of value at a local level and of low sensitivity.

Shepherds Cairns

9.6.20 There are 15 shepherds' or marker cairns across Inner Study Area (56, 60-62, 84(a & b), 85(a & b), 92-94, 96, 102, 103, 107, 108, 109 and 115). As surviving features of historic land-use, these cairns are assessed as being of heritage value at the local level and of low sensitivity.

Miscellaneous Features

9.6.21 There are three shooting butts (22, 31 and 59(a)) across Inner Study Area, all of which are first depicted on the 1912 Ordnance Survey map, annotated as 'shooting huts'. These features are assessed as being of no intrinsic heritage value and are of negligible sensitivity.

9.6.22 Thirteen footbridges (59(b), 63-70, 82, 87, 90(b) and 104) and three 'stepping-stones' sites (71-73) are recorded on 19th century Ordnance Survey maps. Field survey found that these survive in variable condition, mostly dilapidated and no longer in use, and recorded two modern bridges (105 and 106). They are all assessed as being of no heritage value and of negligible sensitivity.

9.6.23 A mineral spring (55) is depicted on the Ordnance Survey 1st edition map at the head of the Rowantree Grain burn. It is likely to have supplied a source of drinking water but it was not found during the field survey. The spring has negligible heritage value and is of negligible sensitivity.

9.6.24 Four stone quarries (99, 100, 109 and 112) have been identified across Inner Study Area. None are shown on historic maps and they are most likely to have been for the extraction of stone to build sheepfolds and field walls. They have negligible heritage value and are of negligible sensitivity.

9.6.25 Three modern, stone clearance heaps (25, 26 and 30) are of no heritage value and are of negligible sensitivity.

9.6.26 A mound (50) is most likely a natural geological feature and is assessed as being of no heritage value and of negligible sensitivity.

Modern Period

9.6.27 Daer Reservoir dam (35) was constructed to supply water to the central belt of Scotland and was officially opened by HM Queen Elizabeth II in 1956. The dam and reservoir are a heritage asset of value at the local level and of low sensitivity.

Historic Landscape Character

9.6.28 According to HLAMap (HES, 2020³⁴) and historical map evidence, the Proposed Development Area covers an area dominated by rough pasture, within which are the remains of a pastoral farming landscape. The remains include small farms, some of which can be traced back to at least the end of the 16th century, and sheep enclosures that relate to pastoral farming practices. There is also ample evidence within the Proposed Development Area for early prehistoric activity (Mesolithic and Neolithic periods) and later prehistoric settlement (Bronze Age and Iron Age periods).

9.6.29 The farm at 'Upper Sweetshaw', and possibly the farm at 'Crookburn', are depicted on Bleau's atlas (1654), which is derived from earlier mapping by Timothy Pont that was carried out in the 1580s and 1590s. Apart from the construction of Daer Dam and Reservoir, and the expansion of a network of modern drainage ditches, evident on aerial photographic and lidar imagery, the landscape has seen little in the way of development over the last few hundred years. As a consequence of the low impact of land-use in the recent historic period (19th and early 20th centuries) and the farming practices of animal husbandry on the Proposed Development Area today, the remains here are well-preserved and likely to contain archaeological information about daily life and farming practices in the post medieval period.

9.6.30 The Old Statistical Account (OSA, 1792³⁵) and the New Statistical Account (NSA, 1845³⁶) of Scotland provides a little information relevant to the Proposed Development Area. The OSA notes that the "greatest part of the parish consists of hills or moors. These are abundantly fit for pasture" (OSA, 1792, 506). The OSA goes on to describe the prevalence of sheep farming in the area, which accords well with the archaeological evidence recorded on site. The NSA also notes that the parish is chiefly pastoral (NSA, 1845, 332) adding that drainage and enclosure had been extensively carried out in the area (ibid, 333), also supporting the archaeological evidence from the Proposed Development Area. The absence of any evidence for relict rig and furrow cultivation around any of the farmsteads indicates that perhaps the dominant practice was one of pastoral farming and the raising of livestock.

9.6.31 Alongside the historic pastoral landscape there is evidence for long-term human use and exploitation of the landscape. Lithic scatters, and stone-tool working debris finds, indicate the Proposed Development Area was in use during the Mesolithic period and in the Neolithic and Bronze Age. The Mesolithic and Neolithic material is relatively ephemeral, and it is not possible to suggest more than that people were moving around the landscape during these periods, perhaps hunting animals, but there is no above-ground archaeological evidence for longer

³⁴ Historic Land-Use Assessment Data for Scotland (HES 2020). HLAMap

³⁵ / https://stataccscot.edina.ac.uk/static/statacc/dist/viewer/osa-vol4-Parish_record_for_Crawford_in_the_county_of_Lanark_in_volume_4_of_account_1/

³⁶ https://stataccscot.edina.ac.uk/static/statacc/dist/viewer/nsa-vol6-Parish_record_for_Crawford_in_the_county_of_Lanark_in_volume_6_of_account_2/

term activity or settlement. The Bronze Age stone-tool artefacts also hint at hunting activity, particularly the barbed-and-tanged arrowhead finds.

- 9.6.32 There are several cairns across the Proposed Development Area, which may be of Bronze Age date, while some of the field boundaries, field systems and clearance cairns, intrinsically difficult to date, may also belong to this period. In addition, several burnt mounds, located along watercourses within the Proposed Development Area, are potentially of Bronze Age date. Their presence can be taken as evidence that people used the landscape on a regular and long-term basis. A possible platform settlement at Sweetshaw Brae, provides some evidence that people may have settled in the landscape during the Bronze Age.
- 9.6.33 The evidence from the baseline study shows that the Proposed Development Area contains some well-preserved archaeological remains and numerous, scattered stone artefact find-spots. The distribution of these find-spots in particular indicates that the Proposed Development Area has a long history of occupation and exploitation from the Mesolithic period up to the present day.

Archaeological potential within the Inner Study Area

- 9.6.34 The Proposed Development lies within an area of upland rough pasture that has seen little in the way of modern disturbance. The archaeological record, derived from several field survey efforts undertaken within the Dear Water valley by Biggar Museum Trust between 1995 and 2005 (Ward 2005³⁷), reveals activity and occupation and shows a layered historic landscape covering hundreds, if not thousands, of years of history; from the Mesolithic to the present day.
- 9.6.35 Against the general background, the probability of further archaeological sites being discovered is higher in specific locations: around Sweetshaw Brae, in the north of the Proposed Development Area for example, and along the various water courses that cross the Proposed Development Area. It is in these locations that lithic scatters and settlement evidence are concentrated and where buried remains are most likely to be present. Much of the ground within the Proposed Development Area, away from the watercourses, is at high altitude (above 400 m AOD) and generally unsuitable for year-round settlement. This is borne out by the character of the remains found away from the watercourse, which are mainly sheepfolds and shepherds cairns, or isolated small groups of shieling huts.
- 9.6.36 Considering current land-use and taking into account the number, distribution and character of recorded archaeological discoveries within the Proposed Development Area, it is assessed that the potential for further archaeological discoveries being made in the Proposed Development Area is moderate to high at lower altitudes and along watercourses and low to moderate in areas of higher altitude (above 400 m).
- 9.6.37 Taking into account the limited footprint of the Proposed Development and the extent of the necessary ground disturbance required for construction, the likelihood of encountering remains of archaeological significance is considered to be low.

Heritage Assets along Primary Proposed Access Route (Figure 9.2; Appendix 9.2)

Prehistoric Archaeology

Settlement

- 9.6.38 There are two scooped settlements (124 and 125) that are of probable late iron age/Romano-British date at the southern end of the proposed access route. Both are Scheduled Monuments and are accordingly assessed as being of heritage value at the national level and of high sensitivity.

Burnt Mounds

- 9.6.39 A sub-circular burnt mound (123) lies on the east side of the Inner Burn, towards the southern end of the proposed access route. As an asset that has the potential to hold archaeological evidence relating to its use and date the burnt mound is assessed as being of heritage value at a regional level and of medium sensitivity.

Cairns

- 9.6.40 There are five locations where groups of small cairns (116-118, 120 and 122), most likely related to field clearance and potentially of prehistoric date, have been recorded in the HER.
- 9.6.41 One of these groups of cairns (118) has been recorded in association with a hut circle. The hut circle and cairns have been persevered with an area of commercial forestry and it is likely that this site has the potential to hold archaeological evidence relating to its use and date. The site is described in the HER as being of heritage value at a regional level and is assessed as being of medium sensitivity.
- 9.6.42 One other group (117), originally comprised of up to 30 cairns, has been affected by forestry but a few have been recorded as surviving in forest rides. Potentially holding some archaeological evidence relating to their use and date any cairns that may survive are assessed as being of heritage value at a local level and to be of low sensitivity.
- 9.6.43 Three other groups of cairns (116, 120 and 122) have been lost during forestry operations and no longer survive. They are assessed as being of negligible heritage value and of negligible sensitivity.

Medieval and Post Medieval

Miscellaneous

- 9.6.44 Two assets recorded in the HER are evidently of post-medieval date and relate to pastoral farming activities. They are a shepherd's marker cairn (119) and remains of an enclosure (121), probably a sheepfold as marked on the Ordnance Survey 1st edition map (1861). They are both assessed as having little or no intrinsic archaeological value and as being of negligible heritage value and negligible sensitivity.

Heritage Assets within Outer Study Area (Figure 9.3; Appendices 9.3 and 9.4)

- 9.6.45 Within the Outer Study Area, there are three Scheduled Monuments within 5 km of the nearest proposed turbine, from which there is some degree of visibility of the Proposed Development based on the blade tip and hub height ZTVs (Technical Appendix 9.3). There are also nine heritage assets within 5 km that are identified in the HER as being of regional importance and have been included in the assessment at the request of DGCAS (Technical Appendix 9.3).
- 9.6.46 Between 5 km and 10 km of the Proposed Development there are a further 38 Scheduled Monuments, from which there is some degree of visibility of the Proposed Development based on the blade tip and hub height ZTVs (Technical Appendix 9.4). In addition to those, there are 19 non-designated heritage assets described in the HERs as being of national importance from which there is some degree of visibility of the Proposed Development. These have also been included in the assessment at the request of DGCAS and WoSAS (Technical Appendix 9.4).
- 9.6.47 There is predicted theoretical visibility of the Proposed Development based on the blade tip and hub height ZTVs from one Category A Listed Building, 14 Category B Listed Buildings, one Conservation Area, two NIDLs, and one ASA. These have also been included in the assessment at the request of DGCAS and WoSAS (Technical Appendix 9.4).
- 9.6.48 The scheduled monuments within the Outer Study Area range in date from the Neolithic to the Medieval period and include funerary monuments, settlements and fortified sites. The listed buildings range from simple residential dwellings to Medieval Castles and Post-Medieval Country Houses and farmsteads.

³⁷ Ward, T, (2005) 'Daer Valley Project, South Lanarkshire (Crawford parish), excavation; survey', Discovery Excav Scot, Council for Scottish Archaeology, (2006)

Future Baseline

- 9.6.49 The future baseline, in the absence of the Proposed Development, is considered likely to remain the same as the current baseline. The known heritage assets are likely to remain undisturbed but subject to natural erosion and decay, including impacts from stock grazing, and there remains the potential for buried archaeological remains yet to be discovered within the Proposed Development Area.
- 9.6.50 If the Proposed Development proceeds, there is unlikely to be an appreciable change to the future baseline of known cultural heritage assets within the Proposed Development Area.

9.7 ASSESSMENT OF LIKELY EFFECTS

Potential Construction Effects

- 9.7.1 Any ground breaking activities associated with the construction of the Proposed Development, (such as those required for turbine bases and crane hardstandings, access tracks, cable routes, compounds, borrow pits, etc.) have the potential to disturb or destroy features of cultural heritage interest. Other construction activities, such as vehicle movements, materials storage, soil and overburden storage and landscaping also have the potential to cause permanent and irreversible effects on the cultural heritage.
- 9.7.2 The Proposed Development has been designed to avoid all known heritage assets within the Proposed Development Area. However, two heritage assets (120 and 122), of negligible sensitivity, along the proposed access route would be crossed by the proposed upgrading of the existing forestry road network.
- The recorded location of a group of six small stone cairns (120) would be crossed by the proposed off-site access track. The HER records that none of the recorded cairns was found during survey in 1990, having been destroyed by forestry works. The site of the former cairns is assessed as being of negligible sensitivity and the predicted direct impact of negligible magnitude, resulting in an effect of negligible significance. No mitigation is required to avoid, reduce or offset the predicted effect.
 - The recorded location of a second group of six small stone cairns (122) would be crossed by the proposed off-site access track. The HER records that none of the recorded cairns was found during survey in 1990, having been destroyed by forestry works. The site of the former cairns is assessed as being of negligible sensitivity and the predicted direct impact of negligible magnitude, resulting in an effect of negligible significance. No mitigation is required to avoid, reduce or offset the predicted effect.
- 9.7.3 Three heritage assets (123, 124 and 125) lie along the primary proposed access route from the public road (Figure 9.2) that has already been upgraded to provide access to Minnygap Wind Farm. This section of the access track requires no upgrading as part of the Proposed Development and the remains have been avoided. As a result, there would be no direct impact on any of the three identified heritage assets and no mitigation is required to avoid, reduce or offset the predicted effect.
- 9.7.4 Three other heritage assets (116-118), identified along the primary proposed access route from the public road, lie at the edge of, or outside of, the proposed off-site access track 50 m wide corridor (Figure 9.2) and would not be affected by any required upgrading work of forestry haul roads through that section. No mitigation is required to avoid, reduce or offset the predicted effect.
- 9.7.5 Two other heritage assets (119 and 121) along the primary proposed access route from the public road (Figure 9.2) lie well away from the existing access tracks and would not be affected by any required upgrading work of forestry haul roads through that section. No mitigation is required to avoid, reduce or offset the predicted effect.
- 9.7.6 Five heritage assets (62, 81, 85, 91 and 92) within the Proposed Development Area (Figure 9.1) have been identified that could, in the absence of any mitigation, be affected by micro-siting (assuming 50 m micro-siting) of any component of the Proposed Development infrastructure:
- A shepherd's cairn (62), of local heritage value and low sensitivity, lies within 50 m of the proposed location of turbine T17. Any micro-siting that could result in a damage to or loss of the assets, a high magnitude

adverse impact, would result in an effect that is assessed, on the basis of professional judgement to be minor: not significant but avoidable.

- A sheepfold (81), of local heritage value and low sensitivity, lies within 50 m of the access track to turbine T15. Any micro-siting that could result in a damage to or loss of the assets, a high magnitude adverse impact, would result in an effect that is assessed, on the basis of professional judgement to be minor: not significant but avoidable.
- A shepherd's cairn (85), of local heritage value and low sensitivity, lies within 50 m of the access track to turbine T14. Any micro-siting that could result in a damage to or loss of the assets, a high magnitude adverse impact, would result in an effect that is assessed, on the basis of professional judgement to be minor: not significant but avoidable.
- A short section of old turf and stone bank (91), of no intrinsic archaeological or heritage value and of negligible sensitivity, lies within 50 m of the junction of the access track to T15. Any micro-siting that could result in a damage to or loss of the asset, a high magnitude adverse impact, would result in an effect that is assessed, on the basis of professional judgement to be minor: not significant but not requiring mitigation.
- A shepherd's cairn (92), of local heritage value and low sensitivity, lies within 50 m of the access track to turbine T14. Any micro-siting that could result in a damage to or loss of the assets, a high magnitude adverse impact, would result in an effect that is assessed, on the basis of professional judgement to be minor: not significant but avoidable.

9.7.7 Mitigation, through marking out to ensure preservation in situ, is proposed to reduce and offset any potential direct effects on those assets that are of local heritage value and low sensitivity. No mitigation is required to avoid, reduce or offset the predicted effect on assets of negligible sensitivity.

9.7.8 It has been assessed (paragraph 9.6.36) that there is a moderate to high potential for hitherto unknown buried archaeological remains to be present within the Proposed Development Area; particularly along watercourses and around areas where there is historical evidence for settlements. Elsewhere, across the higher open hill ground away from watercourses, the potential for preserved buried remains is assessed as being low to moderate.

9.7.9 Taking into account the assessed low or medium sensitivity of many of the known archaeological remains on the Proposed Development Area, and assuming potential impacts of high magnitude arising from construction works, it is assessed that, without mitigation, any adverse direct effects (moderate or major) on buried archaeological remains could be significant in the context of the EIA regulations. If required as a planning condition, watching briefs in any areas considered to be archaeologically sensitive would serve to reduce and offset any potential direct effects on buried archaeological remains.

Potential Operational Effects

Direct Effects

9.7.10 There are no identified assets likely to receive a direct effect arising during operation of the Proposed Development. This is due to the approach adopted in formulating the design and layout of the Proposed Development, i.e. avoidance, and because any maintenance works on site would utilise the as built infrastructure (tracks and hardstandings).

Setting Effects

9.7.11 The Proposed Development could result in adverse effects on the setting of cultural heritage assets both within the Inner Study Area and in the Outer Study Area. Potential effects on the settings of heritage assets would however diminish with increasing distance from the Proposed Development Area. It is considered that beyond 10 km, the Proposed Development would not appreciably alter features of the setting of the heritage assets that contribute to cultural significance, nor would it appreciably alter how a heritage asset is understood, appreciated and experienced.

9.7.12 No assets beyond 10 km from the Proposed Development have been identified by HES, DGCAS or WoSAS as requiring consideration for potential effects on their settings and none have been identified through appraisal of the wider blade tip height ZTV where the Proposed Development is likely to adversely affect key views or vistas. Technical Appendix 9.3: Assets within Outer Study Area and within 5 km of the Proposed Development, and Technical Appendix 9.4: Assets within Outer Study Area and between 5 km and 10 km of the Proposed Development, contain tabulated assessments of the predicted effects on the settings of designated heritage assets from which there is some degree of predicted theoretical visibility of the Proposed Development (no matter how small) based on analysis of the hub and blade tip height ZTVs.

9.7.13 The assessment of operational effects on the settings of heritage assets has been carried out with reference to the layout of the Proposed Development and the locations of the cultural heritage assets shown on Figure 9.3: Cultural Heritage: Outer Study Area. The criteria detailed in Table 9.2 (Sensitivity of Heritage Assets), Table 9.3 (Magnitude of Impact) and Table 9.4 (Significance of Effect) have been used to assess the nature and magnitude of the effects set out in Technical Appendix 9.3: Assets within Outer Study Area and within 5km of the Proposed Development and Technical Appendix 9.4: Assets within Outer Study Area and between 5km and 10km of the Proposed Development.

Table 9.5: Cultural Heritage Visualisation Viewpoints

| Figure No | Site Name & Ref No |
|--|--|
| Figure 9.5: CH1 Figure 5.32: LVIA VP 16 | Kinnelhead Tower, fortified farmstead & cross incised stones (SM 8610) |
| Figure 9.6: CH2 | Easter Earshaig, settlement 100m NW of (SM 10790) |
| Figure 9.7: CH3 | Stidriggs, fort and settlement 400m ESE of (SM 10545) |
| Figure 9.8: CH4 | Beattock Hill, fort and unenclosed settlement 935m W of Braeside (SM 4748) |
| Figure 9.9: CH5 | Auchen Castle (SM 683) |
| Figure 9.10: CH6 | Blacklaw Tower, associated buildings and enclosures (SM 8659) |
| Figure 9.11: CH7 | Bodsberry Hill, fort (SM 2605) |
| Figure 9.12: CH8 | Coats Hill, motte 480m NE of St Margaret's (SM 686) |
| Figure 9.13: CH9 | Garpol Water, Motte-and-Bailey 650m SW of Rosetta (SM 8566) |
| Figure 9.14: CH10 | Eyre Burn, settlement 1km NNW of Stidriggs (SM 12607) |
| Figure 9.15: CH11 | Glenochar / Annanshaw Brae; Unenclosed Platform Settlement; Small Cairns (HER 10426) |

9.7.14 The tabulated assessments presented in Technical Appendix 9.3 and Technical Appendix 9.4 have identified no potentially significant effects. The visualisation viewpoints listed above are referenced in the tabulated assessment for ready cross reference. Five of the Scheduled Monuments that consultees requested be included in the assessment are represented by photomontages which show the visual impact on the settings of these assets and the landscape context within which the monuments lie. As these visualisations are helpful in representing the effects of the Proposed Development at a range of distances each of these is discussed in detail below. The remaining assets are all discussed in tabulated summary form in the accompanying Technical Appendices (9.3 and 9.4) where reference is made to each of the visualisations and to any LVIA viewpoints where relevant.

Kinnelhead Tower, fortified farmstead & cross incised stones (SM 8610) (Figure 9.5 and Figure 5.32)

9.7.15 The poorly preserved remains of this tower house lie 3.48 km from the nearest proposed turbine. Only the footings of the medieval tower house survive along with the outline of a contemporary courtyard. The site lies at the edge of an improved pasture field immediately south-east of Kinnelhead Farm and the Kinnel Water. Further former settlements, some of which may be contemporary with the tower house, survive around Kinnelhead Farm and along the west bank of the river. Kinnelhead Farm itself is currently occupied and a working farm; large modern barns that form part of the farmstead lie just to the east of the tower house ruins.

9.7.16 The current setting of the site is the farmland within which it sits and the surrounding improved pastureland. A natural rise in topography (Peat Hill) to the west of the tower house limits views out in that direction, with the main views from the tower house being towards the south-east and to the north-west, along the Kinnel Water. The operational Harestanes Wind Farm, which lies to the south-west of the tower house, is concealed from view by the shoulder of Peat Hill.

9.7.17 A wireline visualisation (Figure 9.5: CH1) provides a bare earth representation of the predicted visibility of the Proposed Development from the site of the former tower house, showing that four turbines would be visible at hub height with a blade tip of a further turbine visible, beyond the skyline in views to the northwest. Figure 5.32 (LVIA VP 16) provides a photomontage of the view from a location around 100m to the east of the former tower house, near to the present farmstead this shows visibility of three turbines at hub height and two as blade tips only in views north west along the valley of the Kinnel Water (Figure 5.32a and 5.32f). The view southeast along the Kinnel water towards Annandale (Figure 5.32b and 5.32c), would be unaffected.

9.7.18 The Proposed Development would represent a change to the current baseline setting, but the proposed turbines, screened by the local topography around the present farmstead, would not be intrusive within the localised setting of the remains of the former tower house. The proposed turbines would not be physically dominant within the setting of the tower house and it would remain possible for any visitor to understand and appreciate the site within its valley setting. The visitor's experience of the site would not be diminished by the presence of the Proposed Development.

9.7.19 Overall, it is assessed that, the proposed Development would have a low magnitude impact on the setting of Kinnelhead Tower, fortified farmstead & cross incised stones, an asset of high sensitivity, resulting in an effect assessed, on the basis of professional judgement, to be minor and not significant.

Easter Earshaig, settlement 100m NW of (SM 10790) (Figure 9.6)

9.7.20 This multi-period settlement, 5.02 km to the east southeast of the proposed Development, comprising of a complex of earthworks, buildings and kilns, is situated on a low rise about 80m north north-west of the remains of Easter Earshaig farmstead (and an occupied cottage) within an open pastoral farmland setting which is surrounded by commercial conifer forestry plantation.

9.7.21 The settlement occupies a slightly elevated topographic position, close to a watercourse from which there as open views to the surrounding landscape (Figure 9.6a-d). Long distance views from the settlement are curtailed by the local topography and it has a largely localised setting within the Kinnel Water valley. The operational Harestanes and, to a lesser extent, Minnygap Wind Farms are visible in views to the southwest, partly screened from view by intervening commercial forestry (Figure 9.6d).

9.7.22 The photomontage and wirelines show that in the absence of the intervening commercial forestry, the Proposed Development would be visible in views to the north northwest; four turbines theoretically visible at hub height and a further three visible as blade tips only (Figure 5.9a and 5.9e). the photomontage (Figure 9.6f) shows three hubs and one blade tip visible beyond the skyline.

9.7.23 The Proposed Development would represent a slight change to the current baseline setting, but the proposed turbines, screened by the local topography, would not be intrusive within the localised setting of the settlement. The proposed turbines would not be physically dominant within the setting of the settlement remains and it would remain possible for any visitor to understand and appreciate the site within its valley setting. The visitor's experience of the site would not be diminished by the presence of the Proposed Development.

9.7.24 Overall, it is assessed that, the proposed Development would have a low magnitude impact on the setting of Easter Earshaig, settlement, an asset of high sensitivity, resulting in an effect assessed, on the basis of professional judgement, to be minor and not significant.

Stidriggs, fort and settlement 400m ESE of (SM 10545) (Figure 9.7)

9.7.25 The remains of a probable Iron Age fort, overlain by a later settlement, survive as upstanding earthworks, on a knoll on a northeast-facing hillslope overlooking the Kinnel Water. The fort is 7.47 km from the Proposed Development in an open moorland setting. From the site there are open views to the east across the Kinnel Water valley and to the hills beyond Annandale (Figure 9.7b and 9.7c) and long distant views to the northwest (Figure 9.7a). Views to the southeast (Figure 9.7d) are more closely curtailed by local topography. Turbines of the operational Harestanes Wind Farm are visible, backclothed by hills beyond, in views to the west (Figure 9.7a) and Clyde (including Clyde II) Wind Farm is visible in distant views to the north.

9.7.26 The photomontage and wirelines (Figure 9.7a and 9.7e) show that the Proposed Development would be visible in views to the northwest; nine turbines theoretically visible at hub height and a further three visible as blade tips only. The photomontage (Figure 9.7f) shows six hubs and five blade tips visible beyond the skyline and current commercial forestry.

9.7.27 The Proposed Development would represent a change to the current baseline setting, adding to the number of turbines visible from the fort in views to the northwest (Figure 9.7a). However, the proposed turbines, largely screened by intervening topography, would not be intrusive within the localised setting of the fort and would not be intrusive within the Kinnel water valley landscape. The proposed turbines would not be physically dominant within the setting of the fort and it would remain possible for any visitor to understand and appreciate the site within its valley setting and the expansive views over the surrounding landscape. The visitor's experience of the site would not be diminished by the presence of the Proposed Development.

9.7.28 Overall, it is assessed that, the proposed Development would have a low magnitude impact on the setting of Stidriggs, fort and settlement, an asset of high sensitivity, resulting in an effect assessed, on the basis of professional judgement, to be minor and not significant.

Beattock Hill, fort and unenclosed settlement 935m W of Braeside (SM 4748) (Figure 9.8)

9.7.29 The remains of a later prehistoric hill fort and adjacent unenclosed settlement occupy the summit of Beattock Hill just north of the Southern Upland Way. The fort and settlement are part of a group of related sites and features that make up the Beattock Hill ASA. The fort is 6.88 km from the Proposed Development in an open pasture grassland setting. From the site there are open views to the northeast and southeast across Annandale (Figure 9.8b and 9.8c) and long distant views to the northwest (Figure 9.8a). Views to the southeast (Figure 9.8d) include the operational Harestanes and Minnygap Wind Farms (Figure 9.8d) and Clyde (including Clyde II) Wind Farm is visible in distant views to the north (Figure 9.8a and 9.8b).

9.7.30 The photomontage and wirelines (Figure 9.8a and 9.8e) show that the Proposed Development would be visible in views to the northwest; 11 turbines theoretically visible at hub height and a further six visible as blade tips only. The photomontage (Figure 9.8f) shows 11 hubs and three blade tips visible beyond the skyline and current commercial forestry.

9.7.31 The Proposed Development would represent a change to the current baseline setting, adding to the number of turbines visible from the fort in views to the northwest (Figure 9.8a and 9.8f). However, the proposed turbines, largely screened by intervening topography, would not be intrusive within the localised setting of the fort and would not be intrusive within open pastureland landscape. The proposed turbines would not be physically dominant within the setting of the fort and it would remain possible for any visitor to understand and appreciate the site within its upland pastureland setting and the expansive views over the surrounding landscape; particularly over Annandale to the east. The visitor's experience of the site would not be diminished by the presence of the Proposed Development.

9.7.32 Overall, it is assessed that, the proposed Development would have a low magnitude impact on the setting of Beattock Hill, fort and unenclosed settlement, an asset of high sensitivity, resulting in an effect assessed, on the basis of professional judgement, to be minor and not significant.

Auchen Castle (SM 683) (Figure 9.9)

9.7.33 The ruins of a former tower house lie 6.42 km to the east southeast of the Proposed Development, on a plateau overlooking the valley of the River Annan to the east and a deep-wooded ravine formed by the Garpol Burn to the south. From the castle remains, the principal open views to surrounding landscape are those to the east over Annandale (Figure 9.9b and 9.9c); a woodland copse to the west (Figure 9.9a) partly screens views to the hills in that direction. Views to the southeast (Figure 9.9d) include the operational Harestanes and Minnygap Wind Farms, largely screened by a strip of nearby shelterbelt woodland, while Clyde (including Clyde II) Wind Farm is just visible in distant views to the north (Figure 9.9a and 9.9b), also largely screened by nearby woodland.

9.7.34 The photomontage and wirelines (Figure 9.9a and 9.9e) show that the Proposed Development would, in the absence of screening provided by the shelterbelt woodland and commercial forestry beyond, be visible in views to the northwest; ten turbines theoretically visible at hub height and a further five visible as blade tips only. The photomontage (Figure 9.9f) shows unobstructed visibility of only four turbine hubs, with other blade tips visible beyond the intervening woodland trees.

9.7.35 The Proposed Development would represent a slight change to the current baseline setting, adding to the number of turbines theoretically visible from the castle in views to the northwest (Figure 9.9a and 9.9f). However, the proposed turbines, largely screened by intervening topography and woodland close to the castle remains, would not be intrusive within the localised setting of the castle and would not be intrusive within the current pasture landscape. The proposed turbines would not be physically dominant within the setting of the castle and it would remain possible for any visitor to understand and appreciate the site within its pastureland setting and the expansive views over the surrounding landscape; particularly those over Annandale to the east. The visitor's experience of the site would not be diminished by the presence of the Proposed Development.

9.7.36 Overall, it is assessed that, the proposed Development would have a low magnitude impact on the setting of Auchen Castle, an asset of high sensitivity, resulting in an effect assessed, on the basis of professional judgement, to be minor and not significant.

9.8 CUMULATIVE IMPACTS

9.8.1 Figure 9.4 shows the Proposed Development along with the locations of other operational and consented wind farms, those that are currently proposed (application stage), and those at scoping stage, together with those cultural heritage assets within 10 km (within the Proposed Development ZTV and considered in the assessment).

9.8.2 Where visible from assessed heritage assets, these cumulative developments (and other cumulative schemes beyond 10 km) appear on the cumulative wireframes provided (Figures 9.5 - 9.15) and are shown on the LVIA VPs (Figures 5.20 (VP 4), 5.21 (VP 5) and 5.32 (VP 16)) referenced in the tabulated assessments (Technical Appendix 9.3 and Technical Appendix 9.4) and discussed in the detailed assessment above.

9.8.3 Based on the list of cumulative developments agreed between the LVIA consultants and DGC and SNH, those other (In Planning) developments most likely to give rise to cumulative effects on heritage assets in combination with the Proposed Development (excluding operational and under construction developments, which are considered to be part of the pre-existing baseline) are:

- Crookedstane (a consented development of four additional turbines (126.5 m to tip) to the southernmost cluster of Clyde Wind farm turbines (Figure 9.4).
- Lion Hill (a consented development of four additional turbines (126.5 m to tip) to the southernmost cluster of Clyde Wind farm turbines (Figure 9.4).
- Scoop Hill: a proposed development (at scoping) of 75 turbines (up to 200 m to tip) 13 km to the east of the Proposed Development (Figure 9.4).

9.8.4 The Proposed Development in combination with the Crookedstane and Lion Hill turbines would have a negligible magnitude cumulative impact on the settings of the heritage assets assessed within the Outer Study Area. Both are small, consented additions to the 56-turbine southernmost cluster of the operational Clyde Wind Farm (Figure 9.4) and from the heritage assets to the northwest of the Proposed Development (Figures 9.11 and 9.15 and LVIA Figures 5.20 VP 4 and 5.21 VP 5, for example) the Proposed Development turbines would be seen beyond and in combination with the operational and consented turbines. The Proposed Development would be seen as a small addition to large group of turbines that are in the foreground of the views. The addition of the Proposed Development to that new baseline would have a negligible and not significant cumulative impact on the settings of these heritage assets.

9.8.5 The Proposed Development in combination with the proposed Scoop Hill Wind Farm would have a cumulative impact on the settings of heritage assets to the east and southeast of the Proposed Development (Figures 9.5 - 9.10, 9.12 - 9.14, and LVIA Figures 5.32 VP 16, for example). From the heritage assets along the western side of Annandale the proposed Scoop Hill Wind Farm would be seen in the opposite direction to views of the Proposed Development and would result in wind turbines being present along the skyline on both sides of the valley. Whilst the Proposed Development would be an addition to an existing group along the west side of the valley, Scoop Hill would appear in a currently undeveloped view of the hills on the east side of the valley. The two developments would be sufficiently far from the heritage assets within Annandale not to be physically dominant and it would remain possible for any visitor to understand and appreciate the assets and their settings within the Annandale landscape. The visitor's experience of the assets would not be appreciably diminished by the presence of the two developments. Overall, it is considered that the combination of the Proposed Development and Scoop Hill Wind farm to the current baseline would have an impact of low magnitude on the settings of heritage assets along Annandale. The integrity of their settings, the capacity to inform their cultural significance, would be retained and the effect is assessed as being minor adverse and not significant.

9.9 DECOMMISSIONING IMPACTS

9.9.1 No significant effects are predicted during the decommissioning of the Proposed Development as the as-built road infrastructure would be used for the dismantling and removal of the components of the Proposed Development.

9.10 MITIGATION

9.10.1 Planning Advice Note 1/2013: Environmental Impact Assessment (PAN1/2013) describes mitigation as a hierarchy of measures: prevention, reduction, compensatory (offset) measures. Prevention and reduction measures can be achieved through design, whilst compensatory measures offset effects that have not been prevented or reduced.

9.10.2 Historic Environment Policy for Scotland (HEPS) requires the recognition, care and sustainable management of the historic environment and the emphasis in Planning Advice Note (PAN) 2/2011: Planning and Archaeology (PAN2) is for the preservation of important remains in situ where practicable and by record where preservation is not possible. The mitigation measures presented below take this policy advice and planning guidance into account and provide various options for protection or recording and ensuring that, where practical, surviving assets are preserved intact to retain the present historic elements of the landscape.

9.10.3 All mitigation works presented in the following paragraphs would take place prior to, or, where appropriate, during, the construction of the Proposed Development. 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) developed in consultation with (and subject to the agreement of) WoSAS and DGCAS, acting on behalf of the respective Council.

9.10.4 A professionally qualified Archaeological Contractor would be appointed to act as an Archaeological Clerk of Works (ACoW) for the duration of the construction phase to oversee the scope of mitigation work specified under the WSI approved by DGCAS. The role of the ACoW would be to provide advice to the appointed Construction Contractor regarding micrositing of development components, where there is a possibility of intersecting with

identified heritage assets, and to undertake archaeological monitoring of topsoil stripping operation in areas designated and approved by the Councils' Archaeological Advisors (WoSAS and DGCAS).

Construction Phase Mitigation

Preservation in Situ / Marking-off

9.10.5 Where heritage assets lie close to Proposed Development infrastructure they would be avoided in order to ensure their preservation in situ. Sites that lie within the proposed micrositing allowance would be visibility marked out with a 5 m stand-off buffer around the outermost visible extent of the remains to prevent accidental damage occurring as a result of any micrositing and construction works in their vicinity.

9.10.6 Sites that would be marked out include the following heritage assets, each of which is an asset of low sensitivity that is a surviving component of the historic landscape:

- A shepherd's cairn (62) that lies close to the location of turbine T17
- A sheepfold (81) that lies close to the access track to turbine T15
- A shepherd's cairn (85) that lies close to the access track to turbine T14
- A shepherd's cairn (92) that lies close to the access track to turbine T14

9.10.7 Any micrositing of the Proposed Development infrastructure would be managed to avoid direct impacts on marked out features. The advice of the ACoW would be sought in relation to any micrositing that has the potential to affect any known heritage assets.

No mitigation

9.10.8 If micrositing of the access track to turbine T15 were to result in a high magnitude direct impact on the remains of a 25 m length of old turf and stone bank (91), of negligible sensitivity, the effect would be of minor significance. However, the remains are of little or no intrinsic heritage value and it is not considered necessary to avoid the remains.

9.10.9 Existing forestry haul roads and existing wind farm tracks along the proposed access route from the public road network would be used to facilitate access for construction phase purposes and all assets within the 50 m wide access route corridor have been avoided. As such, there is no requirement for any further mitigation along the proposed access route from the public road.

Watching Briefs

9.10.10 Taking account of the identified cultural heritage baseline within the Proposed Development Area, and the avoidance through the design, it is assessed that there are no especially sensitive areas where watching briefs could be expected to encounter buried archaeological remains. Except in the vicinity of the identified remains in lower lying locations and along watercourses, it has been assessed that the potential for preserved buried remains is low to moderate across the Proposed Development Area and the Proposed Development has been designed to avoid the identified archaeologically sensitive areas.

9.10.11 If required under the terms of a planning condition, the scope of any required archaeological watching brief(s) would be agreed through consultation with WoSAS and DGCAS in advance of development works commencing and would be set out in the Written Scheme of Investigation (WSI). The scope of the agreed works would be set out in a Written Scheme of Investigation (WSI) to be signed-off prior to the commencement of the construction works, including enabling works.

Post-Excavation

9.10.12 If significant discoveries are made during any watching briefs that may be required as a condition of planning consent, and it is not possible to preserve the discovered remains in situ, provision would be made for the excavation where necessary, of any archaeological deposits encountered. The provision would include the

consequent production of written reports, on the findings, with post-excavation analysis and publication of the results of the works, where appropriate.

Construction Guidelines

- 9.10.13 Written Guidelines would be issued for use by all construction contractors, outlining the need to avoid causing unnecessary damage to known sites and to comply with the requirements of the WSI. The guidelines will contain 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 etc.) should be discovered. The guidance will make clear the legal responsibilities placed upon those who disturb artefacts or human remains.

Mitigation during Operation

- 9.10.14 The as-built infrastructure would be used to facilitate maintenance, repair and replacement activities. As such, no mitigation is required in relation to cultural heritage during the operational lifetime of the Proposed Development.

Mitigation during Decommissioning

- 9.10.15 The as-built infrastructure would be used to facilitate decommissioning of the Proposed Development. As such, no mitigation is required in relation to cultural heritage.

9.11 RESIDUAL IMPACTS

Residual Construction Effects

- 9.11.1 Taking account of the mitigation proposals set out above, there would be one residual direct adverse effect:
- An adverse effect of negligible significance on the remains of a turf and stone bank (91).

Residual Operational Effects

- 9.11.2 There would be no significant residual direct effects on any of the cultural heritage assets within the Proposed Development Area during the operational lifetime of the Proposed Development.
- 9.11.3 The residual effect of the Proposed Development on the settings of designated heritage assets would be the same as the predicted operational effects described above (no significant effects). These effects would be removed following decommissioning.

Residual Decommissioning Effects

- 9.11.4 There would be no residual decommissioning effects on cultural heritage.

Residual Cumulative Construction Effects

- 9.11.5 There would no residual cumulative construction effects on cultural heritage.

Residual Cumulative Operational Effects

- 9.11.6 The assessment of potential cumulative effects has identified no cumulative effect on the setting of any of the designated heritage assets within the Outer Study Area, that is greater than that of the Proposed Development alone. No new, significant cumulative effects are predicted resulting from the Proposed Development in addition to any other proposed (in planning) or currently scoped wind farm development.

9.12 MONITORING

Construction Phase Monitoring

- 9.12.1 Adoption of the programme of mitigation works set out above (Section 9.10) would ensure avoidance, reduction and offsetting of potential effects on heritage assets and no additional construction phase monitoring, over and above any watching briefs, is required in relation to cultural heritage interests.

Operation Phase Monitoring

- 9.12.2 No archaeological monitoring is required during the operational lifetime of the Proposed Development in relation to cultural heritage interests.

Decommissioning Phase Monitoring

- 9.12.3 No archaeological monitoring is required during decommissioning of the Proposed Development in relation to cultural heritage interests.

9.13 CONCLUSION

- 9.13.1 This assessment has considered the potential effects of the Proposed Development on cultural heritage interests. A desk-based assessment and walk-over field survey has been carried out informed by comments and information supplied by Historic Environment Scotland (HES) and the DGC Archaeology Service (DGCAS).

- 9.13.2 One hundred and fifteen heritage assets have been identified within the Inner Study Area and ten along the proposed access route from the public road. These are mostly remains of medieval/post-medieval settlement and agrarian activity but also include prehistoric settlement site and prehistoric artefact find-spots (flint tool artefacts).

- 9.13.3 Potential direct effects, in the absence of mitigation, have been predicted on five heritage assets arising from construction of the Proposed Development. Four of these, on assets of local heritage value and low sensitivity, are assessed, in the absence of mitigation, as being minor and not significant but avoidable. One other impact, on an asset of no intrinsic archaeological or heritage value and negligible sensitivity is assessed as being not significant and requiring no mitigation.

- 9.13.4 Mitigation measures have been set out that would avoid or reduce and offset predicted effects where this is considered desirable. No significant residual effects are anticipated in relation to cultural heritage interests subsequent to adoption of the mitigation measures proposed.

- 9.13.5 The archaeological potential of the Inner Study Area has been assessed as being moderate to high in specific areas: at lower altitudes and along watercourses. Elsewhere, in areas of higher altitude the archaeological potential has been assessed as being low to moderate. Taking into account the limited footprint of the Proposed Development and the extent of the necessary ground disturbance required for construction, the likelihood of encountering remains of archaeological significance is considered to be low.

- 9.13.6 Three Scheduled Monuments within 5 km of the nearest proposed turbine, have been identified from which there is some degree of visibility of the Proposed Development based on the blade tip and hub height ZTVs. There are also nine heritage assets within 5 km that are identified in the HER as being of regional importance and have been included in the assessment at the request of DGCAS.

- 9.13.7 Between 5 km and 10 km of the Proposed Development there are a further 38 Scheduled Monuments, from which there is some degree of visibility of the Proposed Development based on the blade tip and hub height ZTVs. In addition to those, there are 19 non-designated heritage assets described in the HERs as being of national importance from which there is some degree of visibility of the Proposed Development. These have also been included in the assessment at the request of DGCAS and WoSAS.

- 9.13.8 There is predicted theoretical visibility of the Proposed Development based on the blade tip and hub height ZTVs from one Category A Listed Building, 14 Category B Listed Buildings, one Conservation Area, two NIDLs, and one ASA.
- 9.13.9 The assessment has concluded that in no case would the settings of any of these assets be significantly adversely affected by the construction and operation of the Proposed Development.
- 9.13.10 The cumulative effect of the Proposed Development in combination with other existing and proposed wind energy developments in the vicinity is considered to be of no more than minor adverse and not significant in terms of the EIA regulations.