

6 Archaeology and Cultural Heritage

6.1 Introduction

- 6.1.1 The cultural heritage of an area comprises archaeological sites, historic buildings, Inventoried Gardens and Designed Landscapes, Inventoried Battlefields and other historic environment features (collectively known as ‘heritage assets’). It also includes features or places which have the capacity to provide information about past human activity, or which have cultural significance due to associations with literary or artistic work, folklore or historic events. The setting of an asset within the wider landscape may contribute to the understanding and appreciation of the asset, and thereby the experience of it and its cultural heritage significance.
- 6.1.2 This chapter assesses the potential effects of the construction and operation of the proposed development on heritage assets within the site and surrounding area. A full description of the proposed development is given in Chapter 2: Proposed Development. The assessment has included consideration of all known designated and non-designated heritage assets within the site, all nationally significant heritage assets within 15km of the proposed wind turbines that fall within the Zone of Theoretical Visibility model (ZTV), and further nationally significant heritage assets beyond 15km of the wind turbines identified in consultation with Statutory Consultees or by the assessment as having a setting sensitive to changes within the distant landscape (Figure 6.1 and 6.2).
- 6.1.3 This assessment has been based on a range of data, including heritage assets recorded by regional and national bodies, readily available secondary sources and the results of a walk over survey of the site.
- 6.1.4 The historic development of the site and study area are discussed in the context of the wider region in order to predict the direct impact on any known or potential unknown archaeological remains within the site, and indirect impacts on assets within the site and study area as appropriate. Measures necessary to safeguard or record any assets potentially affected by the proposed development are suggested.
- 6.1.5 For the purposes of this assessment the historic environment and cultural heritage is considered to consist of a variety of heritage assets, including the following types of designated assets:
- World Heritage Sites (WHS);
 - Scheduled Monuments (SM);
 - Listed Buildings (LB);

- Inventoried Battlefields;
- Conservation Areas; and
- Inventoried Gardens and Designed Landscapes (GDLs).

- 6.1.6 The above designated assets are of national importance, with the exception of Conservation Areas, which are designated by local authorities and may be of lesser (regional) importance. Only Category A listed buildings are considered to be of national importance. Category B listed buildings are considered of regional importance, and Category C listed buildings of local importance (SNH Handbook, 2018).
- 6.1.7 This chapter is supported by:
- Technical Appendix 6.1: Site Gazetteer;
 - Technical Appendix 6.2: Heritage Screening Report;
 - Figure 6.1: Gazetteer Assets;
 - Figure 6.2: Heritage Designations;
 - Figure 6.3: Heritage Viewpoints;
 - Figure 6.4: VP1 Callisterhall, farmstead SM4520;
 - Figure 6.5: VP2 Scots Dike, SM660;
 - Figure 6.6: VP3 Kirtlehead, SM12720;
 - Figure 6.7: VP4 Doe’s Hill, SM12739;
 - Figure 6.8: VP5 Calfield, SM12700;
 - Figure 6.9: VP6 Gibbs Hill, SM4518;
 - Figure 6.10: VP7 Old Irvine, SM4406;
 - Figure 6.11: VP8 Callisterhall Cairn, SM4519;
 - Figure 6.12: VP9 Broomholm, SM2524;
 - Figure 6.13: VP10 Callisterhall Cairn, SM4535; and
 - Figure 6.14: VP11 Bloch Farm (SM4290).
- 6.1.8 The assessment has been carried out by Beth Gray MA (hons) ACIfA, of SLR Consulting Ltd. Detail of professional qualifications are provided in Chapter 1 and any relevant codes of practice have been followed.

6.2 Legislation, Policy and Guidance

Regulatory Background

Legislation

6.2.1 Relevant legislation includes:

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

Planning Policy

6.2.2 Relevant planning policy includes:

- Scottish Planning Policy 2014 (Scottish Government);
- Planning Advice Note Planning and Archaeology PAN 2/2011;
- Our Place in Time: The Historic Environment Strategy for Scotland (Scottish Government, 2014);
- Scottish Statutory Instrument No. 101 The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017;
- Historic Environment Policy for Scotland (HEPS 2019); and
- Historic Environment Circular 1 (Historic Environment Scotland 2019).

Guidance and Technical Standards

6.2.3 A number of relevant guidance documents have been published by the national heritage agency, Historic Environment Scotland (HES), and the professional archaeological body, the Chartered Institute for Archaeologists (CIfA). These publications are:

- HES's Managing Change in the Historic Environment: Setting (2020);
- HES's Designation, Policy and Selection Guidance (2019);
- Environmental Impact Assessment Handbook (Scottish Natural Heritage (now Naturescot) and HES 2018);
- CIfA's Standard and Guidance for Historic Environment Desk Based Assessment (CIfA 2014a, updated 2017), which gives best practice for the execution of desk based assessment;
- A Guide to Climate Change Impact: On Scotland's Historic Environment (2019); and
- CIfA's Code of Conduct (CIfA 2014b).

Scope of Assessment

Study Area

6.2.4 There is no guidance from HES that defines a required study area for the archaeological and cultural heritage assessment of wind farms. Two study areas are therefore proposed:

- a 1km radius study area, as measured from the site boundary, to inform the predictive modelling of archaeological potential; and
- a 15km radius study area, as measured from the site boundary, comprising land beyond the site within which the proposed wind turbines might theoretically be visible from, or within views of, nationally important designated assets. The 15km radius has been selected at the request of HES as per the scoping response of 27th May 2022.

Effects Assessed in Full

6.2.5 The following effects have been assessed in full:

- direct effects on all heritage assets within the site;
- Significant effects on the setting which contribute to the cultural significance of designated heritage assets of national importance within the study areas; and
- Assets agreed with HES as set out in consultation within Table 6-1.

Effects Scoped Out

6.2.6 The following have been scoped out of any further assessment:

- heritage assets more than 15km from the proposed development unless identified as being particularly sensitive to distant landscape change;
- heritage assets for which there is clear justification for their being scoped out, as outlined in Technical Appendix 6.2; and
- heritage assets within the study area shown by the ZTV not to be intervisible with the proposed development, and where there is no identified viewpoint of the heritage assets which contributes to our understanding, appreciation and experience of the same within the ZTV.

Baseline Determination

Sources of Information and Data

6.2.7 The following sources have been consulted:

- the Historic Environment Record (HER) of Dumfries and Galloway Council (DGC) for site-specific information;
- consultation with HES, as appropriate, in relation to designated assets;

- web-based facilities for other information relevant to determining archaeological potential, cultural heritage significance and potential impact;
- historic cartographic sources, to inform our understanding of the development of the historic landscape;
- available Historic Landscape Characterisation data;
- aerial photographs held within the National Collection of Aerial Photography, Edinburgh;
- relevant geotechnical data, including peat probing and sampling data;
- relevant previous heritage assessments pertaining to the site and its surrounds;
- published sources to establish historic landscape and archaeological context and any cultural heritage associations, including data from Canmore (the HES database);
- online data relating to designated assets including scheduled monuments, listed buildings and inventoried gardens and designed landscapes;
- place-name analyses and data; and
- sources relating to/assessing intangible cultural heritage within the study area.

Field Survey

6.2.8 A targeted walkover survey was carried out on the 9th May 2022. Wind turbine locations were visited to confirm the presence/absence of unknown archaeological remains and known heritage assets within the site were inspected to confirm their presence/absence. Ground conditions were wet but the weather was dry and visibility clear. Those assets recorded within the site in the HER were inspected, and these are listed within Technical Appendix 6.1: Site Gazetteer. All of these assets were located and confirmed to be as described in the HER. No new or unknown heritage assets were recorded within the site.

6.3 Consultation

6.3.1 In undertaking the assessment, consideration has been given to the scoping responses and other consultation undertaken as detailed in Table 6.1.

Table 6.1: Consultation with stakeholders

Consultee and Date	Scoping/ Other Consultation	Issue Raised	Response/Action
Historic England - 9 th May 2022	Scoping	Impacts to the setting of the Frontiers of the Roman Empire (Hadrian's Wall) World Heritage Site should be assessed as part of the EIA process This assessment should contain an assessment of any potential impacts to the Outstanding Universal Value of the World Heritage Site	Included for assessment and to be assessed as per methodology in section 6.4.
Historic Environment Scotland - 27 th May 2022	Scoping	Bloch Farm, enclosure 600m N of (SM4690) is located inside the development boundary and should be assessed for impacts. Numerous heritage assets are located in the vicinity of the proposals and should be assessed for impacts. An enlarged study area of 15km would be more appropriate in this instance and consideration should be given to sensitive assets outside of this study area when appropriate Assets outwith of 10km that are possible to be included are: Burnswark or Birrenswark Hill, fort and Roman camps (SM667), Castle O'er fort and linear earthworks (SM651), Mosknowe House (LB9779), Hoddom Castle (LB3558), Kinmount House (LB3582) and its Inventory Designed Landscape (GDL244). Similar consideration should be given to the settings of heritage assets located across the English Border. Scoping report provided good starting point for assessment but had some inaccuracies and gaps in Table A2. This includes no rationale for exclusion of SM4411, SM4395, and SM4394 and at least one monument has the wrong value for direction from site. Recommended that Table A2 is carefully reviewed, and further rationale is	Study area enlarged to 15km for Scheduled Monuments, Category A Listed Buildings, Conservation Areas, GDLs, and Inventoried Battlefields All assets within 15km have been considered for assessment in Appendix 6.2: Heritage Screening Report. The screening report utilises methodology set out in HEPS and HES, 2016: Managing Change in the Historic Environment: Setting Guidance as well as the EIA Handbook of 2019. Any inaccuracies or gaps have been rectified for the screening report which builds upon the baseline work achieved in the Appraisal Report which accompanied the Scoping Report.

Consultee and Date	Scoping/ Other Consultation	Issue Raised	Response/Action
		<p>provided for exclusion of heritage assets where appropriate.</p> <p>Impacts on the setting of heritage assets should be assessed using photomontage and wireframes where impacts are likely to be the highest.</p> <p>Cumulative impacts should be assessed with other existing, consented and proposed developments.</p> <p>Disagree with characterisation of setting impacts as 'indirect' in nature as changes to a setting of a heritage asset can have direct impacts on their cultural significance.</p>	
Historic Environment Scotland	Gate Check 1	HES note the design changes made since the submission of EIA and would welcome further engagement to comment on potential mitigation through design. They also note visualisations and wish for clarification on selection of visualisations.	An informal meeting was held with the HES Case Officer to clarify selection process of visualisations outlined above. Photomontages were selected on the basis of potential for significant effect and wirelines for other relevant assets.
Dumfries and Galloway Council	Scoping	No response was received from DGC Archaeological officer for Scoping. Historic Environment Data was received from DGC on 6 th May 2022. Further attempts for a consultation response were made on the 16 th June 2022 and the 12 th July 2022.	No response has been given from DGC archaeological officer. As such no clear directive has been given for assets that fall within DGC's remit to be included for assessment. As such only assets considered to be of National Importance and protected under statute have been carried forward for consideration into the assessment.

6.4 Methodology

Approach to Assessment of Effects

- 6.4.1 Impacts have the potential to be caused by the proposed development where it changes the baseline condition of either the asset itself or its setting.
- 6.4.2 In accordance with EIA Regulations, this assessment will identify impacts and effects as either direct or indirect, adverse or beneficial, and short-term, long-term or permanent. Direct impacts are those which change the heritage significance of an asset through physical alteration; for purposes of this assessment, indirect impacts are those which affect the heritage significance of an asset by causing change within its setting.
- 6.4.3 Direct effects on the heritage significance of an asset will be assessed on the basis of a combination of the heritage significance of the affected asset (where known), the probability of further assets being located within the affected areas and their likely significance, and the magnitude of impact on those assets caused by the implementation of the proposed development.
- 6.4.4 Indirect effects on the heritage significance of heritage assets will be identified and assessed with reference to Managing Change in the Historic Environment: Setting (HES 2016b) and the guidance set out in SNH (2017) and HES (2018). Assessment will be carried out in the following stages:
- initial consideration of intervisibility and other factors leading to the identification of potentially affected assets;
 - assessment of the heritage significance of potentially affected assets;
 - assessment of the contribution of the setting to the heritage significance of those assets;
 - assessment of the magnitude of impact of the proposed development on the contribution of settings to the cultural significance of assets (by causing change within those settings); and
 - prediction of the significance of the effect.
- 6.4.5 Assessment will be undertaken separately for direct effects and indirect effects. The magnitude of both beneficial and adverse impact will be assessed according to scale of impact, from high to neutral/none.

Cultural Heritage Significance

- 6.4.6 The cultural significance of undesignated heritage assets will be assessed by a consideration of their intrinsic, contextual, and associative characteristics as defined in Annex 1 of HES (2019b). In relation to these assets, this assessment will focus upon an assessment of the assets' inherent potential to contribute to our understanding of the past:
- the character of their structural, decorative and field characteristics as determined from the HER and Canmore records and / or site visits;
 - the contribution of an asset to their class of monument, or the diminution of that class should an asset be lost; and
 - how a site relates to people, practices, events, and/or historical or social movements.
- 6.4.7 Assessments of significance recorded within the HER will be taken into account where available.
- 6.4.8 Table 6.2 shows the potential levels of cultural heritage significance of an asset related to designation, status and grading, and where non-designated, to a scale of Highest to Lowest importance. This table will act as an aid to consistency in the exercise of professional judgement and provides a degree of transparency for others in evaluating the conclusions that could be reached during assessment.

Table 6.2: Cultural Heritage Significance

Heritage significance	Explanation
Highest	Designated assets of international importance, including: <ul style="list-style-type: none"> • World Heritage Sites.
High	Designated assets of national importance, including: <ul style="list-style-type: none"> • Scheduled Monuments; • Category A Listed Buildings; and • Gardens and Designed Landscapes included on the national inventory; • Designated Battlefields.
Medium	Designated assets of regional importance, including: <ul style="list-style-type: none"> • Category B Listed Buildings; • Some Conservation Areas; and • Non-designated assets of equivalent significance.
Low	Assets of local importance, including: <ul style="list-style-type: none"> • Category C Listed Buildings; • Some Conservation Areas; and • Non-designated assets of equivalent significance.

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

Magnitude of Impact

- 6.4.9 Determining the magnitude of any likely impacts requires consideration of the nature of the activities proposed during the construction and operation of the proposed development.
- 6.4.10 The impacts could potentially include direct change (e.g., ground disturbance), and indirect change (e.g., visible change, noise, vibration, traffic movements affecting the setting of the asset). Impacts may be beneficial or adverse, and may be short term, long term or permanent. Magnitude of impact will be assessed with reference to the criteria set out in Table 6.3.

Table 6.3: Magnitude of Impact

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

Significance of Effect

6.4.11 The significance criteria are presented in Table 6.4. Table 6.5 provides a matrix that relates the heritage significance of the asset to the magnitude of impact on its significance (incorporating contribution from setting where relevant), to establish the likely overall significance of effect. Professional judgement shall also be incorporated in the determination of the overall significance of effect. This assessment will be undertaken separately for direct effects and indirect effects, the latter being principally concerned with effects through development within the setting of heritage assets. Moderate or Substantial effects are considered to be significant for the purposes of the EIA Regulations.

Table 6.4: Significance Criteria

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

Table 6.5: Significance of Effect

Magnitude of Impact	Heritage Significance (excluding negligible and unknown)			
	Highest	High	Medium	Low
High beneficial	Substantial	Substantial	Moderate	Slight
Medium beneficial	Substantial	Moderate	Slight	Very slight
Low beneficial	Moderate	Slight	Very slight	Very slight
Very low beneficial	Slight	Very slight	Negligible	Negligible
Neutral/None	Neutral/Nil	Neutral/Nil	Neutral/Nil	Neutral/Nil
Very low adverse	Slight	Very slight	Negligible	Negligible
Low adverse	Moderate	Slight	Very slight	Very slight
Medium adverse	Substantial	Moderate	Slight	Very slight
High adverse	Substantial	Substantial	Moderate	Slight

6.4.12 Specifically in relation to integrity of setting, it has been established that this is a high-level test that would only be identified where a substantial level of impact would be anticipated to occur to the setting of a scheduled monument, as per Paragraph 145 of SPP (2014). Numerous high profile Public Inquiries relating to wind farm proposals - including Birneyknowe, Creggan, Cnoc an Eas, Baillie Hill and Corlic Hill - have been consistent in establishing that the finding of an adverse effect upon the integrity of a scheduled monument's setting, as per SPP para 145, is a very high policy test. Even where major adverse impacts upon a scheduled monument's setting have been identified, these have not necessarily been found to translate into an adverse effect on the integrity of that setting.

6.4.13 In understanding the concept of 'integrity' and how it might be affected, HES' guidance is clear that setting relates to the way in which the surroundings of a historic asset contribute to how it is experienced, understood and appreciated. It is therefore logical and reasonable to consider that where a development would preserve the ability to experience, understand and appreciate a scheduled monument, the integrity of its setting would not be adversely affected.

6.4.14 Conversely, where a proposal would adversely affect the ability to experience, understand and/or appreciate a scheduled monument, then it might be considered to adversely affect the integrity of the setting of that Scheduled Monument. A hypothetical example might be if the inter-visibility between two Scheduled Monuments (an aspect of their setting) was integral to the ability to experience, understand and/or appreciate them, and a proposal was to result in a substantive reduction in or complete removal of that inter-visibility.

6.4.15 Assessment of visual impact has been assisted by a ZTV calculation, as presented in Figure 6.2. The ZTV calculation methodology is set out in detail in Chapter 5: Landscape and Visual Impact Assessment, but in summary it maps the predicted degree of visibility of the proposed development from all points within a study area around the site, as would be seen from an observer's eye level two metres above the ground. The ZTV model presented in Figure 6.2 is based on the maximum height of the blade tips of the proposed development. The ZTV model is used to inform the potential impacts on the setting of designated assets within the study area.

6.4.16 The ZTV is theoretical because it is based on landform only (it is a 'bare earth' model) and does not take into account the screening or filtering effects of vegetation, buildings or other surface features. In that respect it is likely to provide an over-estimate of the actual visibility of the proposed wind turbines.

6.4.17 Assets that fall outwith the ZTV are excluded from any further assessment, with the exception of where a view is identified which includes the heritage asset and the proposed wind turbines, and that view may enable appreciation of the assets' heritage significance.

Mitigation

6.4.18 Where adverse effects on cultural heritage are identified, measures to prevent, reduce, and / or where possible offset these effects, will be proposed. Measures can be broken down into two categories: Direct and Indirect Impacts.

6.4.19 Direct Impact mitigations may include:

- the micro-siting of proposed development infrastructure away from sensitive locations;
- the fencing off or marking out of heritage assets or features in proximity to construction activity in order avoid disturbance where possible;
- a programme of archaeological work where required, such as an archaeological watching brief during construction activities in or in proximity to areas of particular concern, or excavation and recording where damage is unavoidable; or
- a working protocol to be implemented should unrecorded archaeological features be discovered.

6.4.20 Indirect impact mitigation upon an asset's setting may include:

- alteration of wind turbine layouts;
- reduction of wind turbine height; or
- changes in wind turbine colour.

Residual Effects

6.4.21 A summary of residual effects has been given in the concluding remarks to highlight any further site specific measures that may have been identified.

Cumulative Effects

6.4.22 A cumulative effect is considered to occur when there is a combination of:

- a Moderate or above significance of effect on an asset or group of assets as a result of the proposed development; and
- an effect on the same asset or groups of assets which would be caused by another development or developments.

6.4.23 Consideration of such other developments will be limited to:

- Other wind farm planning and section 36 applications that have been submitted and validated; and
- wind farm planning and section 36 applications which have been granted permission but not yet constructed.

6.4.24 Effects from operational wind farms would be included in the baseline. Cumulative effects would be addressed in two stages:

- assessment of the combined effect of the developments including the proposed development; and
- assessment of the degree to which the proposed development contributes to the combined effects.

6.4.25 The cumulative assessment is presented in Section 6.9.

Statement of Significance Effects

6.4.26 The cultural heritage assessment is summarised with the predicted significance of the effects arising from the proposed development. Effects that are considered significant in EIA terms are those that are assessed to be Moderate or Substantial, in accordance with the guidance contained in the HES and SNH (2018) Environmental Impact Assessment Handbook, Section C, Page 75. However, assets considered to be of Moderate significance may experience lesser than significant effect if professional judgement finds that the integrity of the monument would not be compromised in a way that the appreciation, understanding and experience of the monument can still be interpreted.

Limitations to the assessment

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

6.4.28 Limitations to fieldwork are broken down into the Archaeological Walkover and the Setting Assessment Walkover.

Archaeological Walkover

6.4.29 Due to coniferous planting and associated health and safety concerns, the following wind turbine locations and HER sites could not be visited:

- Wind turbines T12 and T13; and
- HER sites SLR90, SLR91, SLR97, SLR111, SLR142.

Setting Assessment Walkover

6.4.30 Due to coniferous planting and the presence of livestock, the following assets could not be reached for purposes of setting assessment:

- Scot's Dike (SM660);
- Callisterhall (SM4535); and
- Old Irvine (SM4406).

6.5 Baseline conditions/receiving environment

Introduction

6.5.1 A full description of the site and environs is given in Chapter 2: Proposed Development. All heritage assets within the site and 1km study area are shown on Figure 6.1. Nationally designated assets within the study areas are shown in relation to the ZTV on Figure 6.2.

6.5.2 All recorded non-designated heritage assets within the site and 1km study area are listed in the gazetteer that is contained within Technical Appendix 6.1. Where designated assets are tabulated in this chapter, they are identified by the index number (i.e., Scheduled Monuments) or reference number (i.e., Listed Buildings) under which they are registered by HES.

Nationally Designated Heritage Assets

6.5.3 There is one designated heritage asset within the site, comprising an enclosure 600m north of Bloch Farm (SM4650).

6.5.4 There are 102 heritage assets of national importance within 10km of the site and 76 assets of Regional Importance within 5km of the site. As per correspondence with HES and Historic England, specific assets were highlighted for assessment. Due to the volume of assets, a screening process of assets to include for assessment has been compiled in Technical Appendix 6.2 showing clear justification for assets scoped out of further assessment. Assets that have been scoped into assessment are detailed in Table 6-6 below.

6.5.5 No response has been received from Dumfries and Galloway Council with regards to scoping.

Table 6.6: Designated Heritage Assets to be assessed as per Appendix 6.2.

Reference	Name	Asset Type	Distance to Closest Wind Turbine	Number of Proposed Wind Turbines Visible (Based upon ZTV Analysis)
Frontiers of the Roman Empire	Hadrian's Wall	World Heritage Site	12.4km	21
SM4690	Bloch Farm, enclosure 600 m N of	Scheduled Monument	0.9km, within site	21
SM4406	Old Irvine, settlement 600m NNW of	Scheduled Monument	1.7km	13
SM4520	Callisterhall, farmstead 400m NNE of	Scheduled Monument	1.8km	21
SM4519	Callisterhall, cairn 1100m NE of	Scheduled Monument	1.9km	21
SM4687	Cleuchfoot, farmstead 1500m NE of	Scheduled Monument	2.5km	21
SM12700	Calfield, scooped settlement and farmstead	Scheduled Monument	2.5km	20
SM2524	Broomholm, Roman fort	Scheduled Monument	3km	21
SM4518	Gibb's Hill, unenclosed settlement, palisaded settlements & houses	Scheduled Monument	3.3km	21
SM4397	Greenleuch Cottage, settlement 1550m NNW of	Scheduled Monument	3.5km	20
SM4535	Callisterhall, cairn 2550m NNE of	Scheduled Monument	3.6km	20
SM12739	Doe's Hill, settlement 915m N of Kirtlehead	Scheduled Monument	4.1km	21
SM12720	Kirtlehead, ring ditch house 1150m N of	Scheduled Monument	4.3km	21
SM660	Scots' Dike, boundary earthwork, Scotsdike Plantation	Scheduled Monument	5.4km	21
SM645	Birrens Hill, enclosure and farmstead 750m W of Carruthers	Scheduled Monument	5.7km	21
SM667	Burnswark or Birrenswark Hall, fort & Roman Camps	Scheduled Monument	11.7km	21
Langholm Conservation Area	Langholm Conservation Area	Conservation Area	2.8km	18

6.5.6 All other assets in the appraisal in Technical Appendix 6.2 were considered for assessment but have since been excluded, as those assets and their approaches are located outwith the ZTV.

Known Heritage Assets within the Site

Prehistoric and Roman

- 6.5.7 Within the site, there are 10 known prehistoric heritage assets, all agricultural in nature. The Scheduled Monument of Bloch Farm (**SM4690**), a D-shaped Iron Age enclosure, is located approximately 860m north-west of T18. Associated with this asset is a wider area of settlement and enclosure (**SLR01**, **SLR24**, **SLR144**). A record categorised as a field (**SLR91**) is located approximately 150m south-west of T13 and a cairnfield (**SLR111**) is located approximately 60m south-east of T9.
- 6.5.8 An area of cultivation rig comprises **SLR42** and **SLR112** and is located approximately 140m west of T11. Three ring-enclosures are located within the site, one approximately 330m north-west of T7 (**SLR44**), one approximately 620m north of T5 (**SLR45**), and one approximately 230m north-east of T4 (**SLR46**).
- 6.5.9 Within 1km of the site, there are a further nine Prehistoric assets. Two are ring ditches (**SLR22**, **SLR50**), which align with the agricultural assets within the site. To the north-west of the proposed development is a cluster of funerary assets (**SLR03**, **SLR29**, and **SLR139**). This area of funerary assets includes the Scheduled Monument Callisterhall Cairn (**SM4519**), a bronze age burial cairn, which is approximately 1.8km north of T5 and 800m north of the site boundary. Approximately 100m to the north of these assets is an enclosure or hut circle (**SLR137**). Additionally, there are two areas of burnt mounds (**SLR37**, **SLR38**, **SLR120**, **SLR121**), located approximately 1km north-west of the site.
- 6.5.10 There are no known Roman assets within the site, though an area of *possible* Roman settlement (**SLR30**) is located approximately 0.8km north of T7.

Medieval

- 6.5.11 There are 14 known potential medieval heritage assets within the site. These are agricultural in nature. They consist of nine areas of rig cultivation¹, three ring-enclosures (**SLR108**, **SLR109**, **SLR110**), and two wells (**SLR127**, **SLR150**).

- 6.5.12 Within 1km of the site, there are three known medieval assets, with a further 55 dated as medieval but that may rather be post-medieval and/or both. Key assets include a bloomery (**SLR41**), located approximately 1km south-east of T17 and the remains of a chapel (**SLR26**) located approximately 1km south of the site and 1.2km south-east of T13. The majority of the medieval assets within 1km of the site are agricultural and domestic in nature and reflect the medieval assets within the site. The medieval HER records from outwith the site can be found in the site gazetteer in Technical Appendix 6.1.

Post-medieval

- 6.5.13 There are 21 recorded post-medieval heritage assets within the site. All post-medieval heritage assets are agricultural in nature, consistent with the continued agricultural use of the site.
- 6.5.14 Nine of the recorded assets are farmsteads and associate lands.² Two of the recorded farmsteads (**SLR125**, **SLR126**) are dated as medieval to modern within the HER, yet all accessible records suggest a post-medieval date, with the existence of surviving medieval remains being uncertain. Seven of the recorded assets are sheepfolds, all located in proximity to the aforementioned farmsteads.³
- 6.5.15 There are two recorded assets identified as buildings (**SLR08**, **SLR09**). **SLR08** is shown as unroofed on the Six-Inch 1st Edition Ordnance Survey Map, published in 1862, however, and may instead be an enclosure. In addition, there are three recorded post-medieval field systems (**SLR128**, **SLR129**, **SLR130**).
- 6.5.16 Outwith the site there are 29 post-medieval heritage assets within 1km of the site and a further 55 assets of possible post-medieval date. The majority of the post-medieval assets within 1km of the site are agricultural or domestic in nature, consistent with those recorded within the site, and again demonstrating the continued agricultural use of the site. The post-medieval HER records from outwith the site can be found in the site gazetteer in Technical Appendix 6.1.

¹ SLR05, SLR11, SLR13, SLR14, SLR51, SLR55, SLR97, SLR104, SLR142

² SLR73, SLR114, SLR116, SLR117, SLR125, SLR1256, SLR33, SLR34, SLR39

³ SLR07, SLR80, SLR81, SLR83, SLR87, SLR88, SLR89

Undated Features or Structures

- 6.5.17 There are 15 undated heritage assets recorded within the site.
- 6.5.18 Two of these assets were identified during the walkover in June 2022, having not been previously recorded. A shieling or potential quarry (SLR401) was identified approximately 250m north of T16. Additionally, a possible cairn was identified approximately 300m north-east of T16 (SLR402). A further cairnfield (SLR43) is listed in the HER, approximately 150m south-east of T9.
- 6.5.19 Additional undated heritage assets within the site include five boundaries⁴, a building (SLR85), a Hay Ree (SLR66), an enclosure (SLR63), a field (SLR60), a potential settlement (SLR10), the bank of Kerr Plantation (SLR16), a well or chalybeate (SLR32).
- 6.5.20 A further 17 undated heritage assets are located within 1km of the site. These assets are similar in nature to the undated assets within the site, with multiple cairns and agricultural features. The undated HER records from outwith the site can be found in the site gazetteer in Technical Appendix 6.1.

Historic Mapping and Historic Land-Use Assessment

- 6.5.21 Assessment of the Historic Land Use Assessment (HLA) map indicates that the land within the site was primarily used as an area of rough grazing. The entry for this category of land use notes that areas of rough grazing were associated with pre-19th century agriculture and settlement and may contain remains dating back to the prehistoric period. The description states that *'Archaeological landscapes are most likely to survive in this type of modern land use. Nevertheless, there will be extensive areas with little sign of historic use'*.
- 6.5.22 A review of the online historic mapping available from the National Library of Scotland was undertaken. The earliest map to depict the site in any detail is the Roy Military Survey Map (1747-1755), which shows settlements at Bigholms and Bloch that correspond with those recorded in the HER. The site is also visible on the 1804 Crawford Map of Dumfries-shire, though there are no additional heritage assets or other material changes to the site identifiable on this map.

- 6.5.23 The earliest Ordnance Survey map showing the site is the 25-Inch 1st Edition, surveyed in 1857 and published in 1859. The map records assets SLR142 and Bloch Farm (SM4690) as Forts. However, the HER categorises them as enclosures. There are no additional heritage assets shown on the map. A review of further Ordnance Survey mapping from the late 1800s to 1964 indicates very little change to the landscape, with it primarily remaining in agricultural use. Again, no additional heritage assets are depicted.

Aerial Photography

- 6.5.24 The online aerial imagery of National Collection of Aerial Photography (NCAP) was examined for evidence of archaeological sites. No oblique aerial imagery in the HES archives on Canmore was found. No further archaeological sites were identified.

Discussion of the Site

- 6.5.25 Analysis of the Historic Environment data suggests that the site was an area of prehistoric activity, mainly agricultural and domestic. This is most notably seen in the Bloch Farm (SM4690) scheduled monument. Bloch Farm is dated to the Iron Age, with other prehistoric heritage assets within the site having a less definitive date. The prehistoric assets are spread throughout the site, with no particular concentration. However, several assets lie along the various watercourses within the site and may represent a preference for occupation proximate to those watercourses.
- 6.5.26 Within 1km of the site, there are numerous prehistoric assets, with multiple being agricultural in nature. In addition, the presence of Bronze Age funerary assets outwith the site, concentrated to the north-west near the summit of Cock Law, suggests that the landscape surrounding the site had a multitude of uses. There is no evidence for prehistoric funerary monuments within the site.
- 6.5.27 The potential for unknown prehistoric heritage assets within the site is moderately high, given the level of recorded prehistoric activity within and local to the site.
- 6.5.28 The potential for unknown Roman heritage assets to survive buried within the site is low; there are no recorded Roman assets within the site, and the only possible proximate Roman asset comprises the possible settlement (SLR30) to the north, which may be contemporary with the Iron Age Bloch Farm (SM4690).

⁴ SLR60, SLR61, SLR65, SLR66, SLR71

- 6.5.29 The majority of medieval assets within the site are areas of rig cultivation. There is also the possibility that two farmsteads that are dated as post-medieval may have also existed during the medieval period, although there are no records or surviving remains to confirm this. The medieval assets outwith the site are mainly agricultural and domestic in nature, reflecting the usage of the site, as such any unknown assets are likely to be of this nature. There is the potential for further unknown agricultural remains of medieval date to survive buried within the site.
- 6.5.30 The majority of post-medieval heritage assets within the site are agricultural and domestic in nature, with nine being farmsteads and the rest of the assets being associated with field systems, sheepfolds, enclosures, and buildings. Within 1km of the site are 29 definitively dated post-medieval heritage assets, consistent with the agricultural and domestic nature of the assets within the site. There is the potential for unknown post-medieval agricultural remains (e.g. field systems, boundaries etc.) to survive buried within the site. There is no evidence to suggest that any substantive structural remains of post-medieval date survive within the site; the locations of such structures, including historic farmsteads, are well recorded on historic mapping.
- 6.5.31 There are 15 undated heritage assets within the site, consisting of a shieling, cairns, enclosures, fields, boundaries and wells. Two assets were identified within the site during the 2022 walkover survey; these assets, which comprise a shieling or possible quarry (SLR401) and a possible cairn (SLR402), had not been previously recorded.

Future Baseline

- 6.5.32 If the proposed development was not to proceed, there would likely be no change to the baseline condition of the various heritage assets and features that presently survive within the site.

Implications of Climate Change

- 6.5.33 As per 'A Guide to Climate Change Impacts On Scotland's Historic Environment' (October 2019), peat is classed as a cultural heritage resource due to its formation during the Bronze Age as mass deforestation occurred. Due to the anaerobic conditions under which peat is formed, it is often seen as a 'window' onto the palaeo-environment. The presence of peat across site, as detailed in Chapter 9: Hydrology, Hydrogeology, Geology and Soil, means there is a potential for environmental or organic deposits to survive. Climate change could affect naturally formed peat deposits leading to the destruction of paleoenvironmental evidence. This might result in the loss of previously unrecorded cultural heritage assets.

- 6.5.34 Other impacts of climate change on buried remains might result from increased rainfall and fluctuating temperatures, with the sequence and frequency of natural soil saturation and desiccation changing the preservative conditions. This might result in damage or loss of organic artefacts. For upstanding remains, such change has the potential to result in increased water penetration, which may then cause/accelerate erosion/decay of historic fabric.
- 6.5.35 Notwithstanding the above, it is considered that the description of the baseline conditions remains robust for purposes of this assessment, and that it allows for a robust assessment of the impacts of the proposed development on cultural heritage.

6.6 Assessment of Potential Effects

Construction Effects

Embedded Measures

- 6.6.1 Impacts are considered with due regard to embedded mitigation measures.
- 6.6.2 Bloch Farm, Enclosure (SM4690), was considered for direct impact. A buffer of 0.5km was embedded into the design to ensure no impacts from infrastructure would impact the asset.
- 6.6.3 With regard to potential indirect (operational) effects, as detailed in Chapter 3: Site Description and Design Evolution, mitigation through design to avoid assets that contribute to the setting of Bloch Farm, Enclosure (SM4690), has comprised the reduction of wind turbine heights and the movement of wind turbines, specifically the western cluster (T1 - T5).

Potential Effects

- 6.6.4 Taking account of the embedded design mitigation, the following effects are predicted.
- 6.6.5 With reference to Figure 6.1, the proposed development, in the form of access tracks, would have a direct impact on the following assets:
- SLR111, post medieval building.
- 6.6.6 SLR111 is a post medieval building, identified on review of the processed Lidar imagery. The extent of this building could not be ascertained during the walkover due to forestry plantation. It is considered to be of low heritage significance and as such would have a very low adverse magnitude of impact resulting in a negligible significance of effect.

Proposed Mitigation and Enhancement

- 6.6.7 With regard to further mitigation to be implemented as a condition to consent, the undertaking of an archaeological watching brief be used to ascertain the absence/presence of the building to ensure that there are no remains impacted would mitigate the direct impact upon SLR111.
- 6.6.8 The precise scope of the mitigation works would be negotiated with DGC's Archaeological Officer and an agreed mitigation programme would be documented in an agreed Written Scheme of Investigation (WSI).

Residual Construction Effects

- 6.6.9 The completion of the archaeological mitigation programme outlined above would offset direct adverse impact upon archaeological remains. Any harm caused to buried remains as a result of ground disturbance during construction would be offset to some degree by the benefits provided through the information gained during the archaeological investigation and reporting process. Any significant impacts identified in relation to buried archaeological remains should be considered in this context.

Operational Effects

Bloch Farm, Enclosure (SM4690)

Description

- 6.6.10 Bloch Farm (SM4690) comprises a D-Shaped enclosure with an inner bank 0.5m high and subsequent outer banks. To the north of the banks there is a surrounding ditch 1m deep with corresponding banks. The interior of the enclosure measures up to 47m by 34m with a 3m entrance gap in the north-west of the banks. The asset is an Iron Age enclosure overlooking the Wauchope Water.
- 6.6.11 Historical mapping such as Roys Lowlands Military Map (1745-55) and the Ordnance Survey 1st edition (1843) records the asset as a fort. Given the defensive banking surrounding the enclosure, and its topographic/landscape context, the asset was clearly fortified to some extent.
- 6.6.12 Bloch Farm enclosure has relationships with other non-designated assets located upon neighbouring hills to the north-west of the asset. The following assets may share relationships with Bloch Farm:
- Calfield Rig (HER: MDG8041);
 - Cleuchfoot (HER: MDG8044); and
 - Calfield (HER: MDG8040).

- 6.6.13 These assets are all recorded as Iron Age settlements or palisaded enclosures, which overlook the eastern side of the Wauchope Water valley.

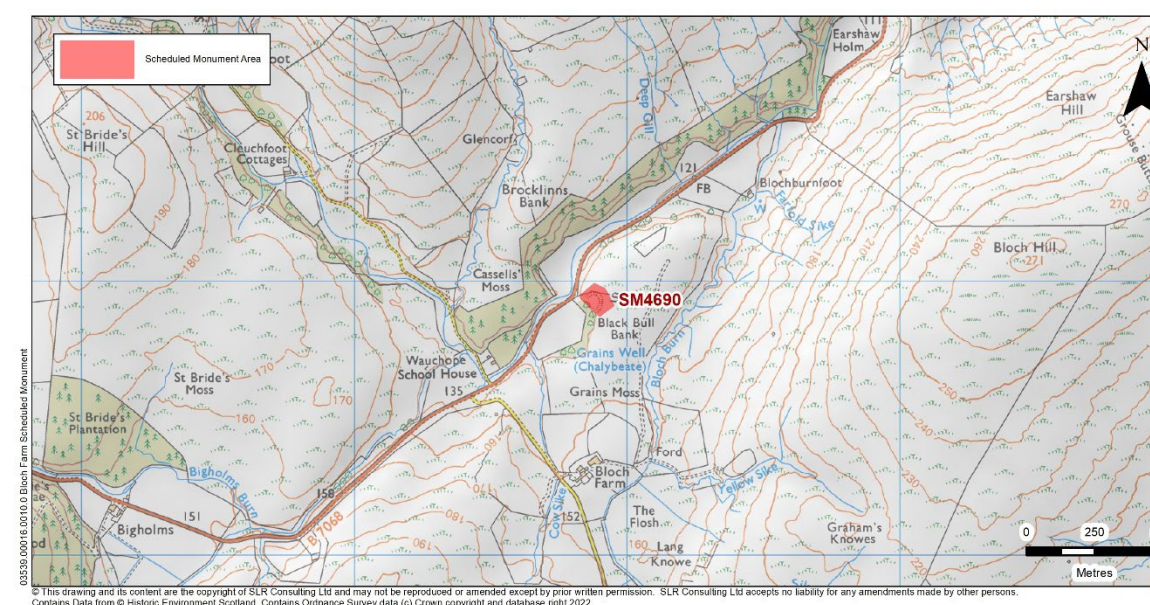
Significance

- 6.6.14 As a scheduled monument, Bloch Farm is considered to be an asset of High cultural significance. This significance derives primarily from the asset's archaeological interest; professional examination of the remains would have the potential to make a substantive contribution to our understanding of the asset's construction, use and sequence of development, as well as its contribution to the wider Iron Age landscape, changing palaeo-environmental conditions and numerous other conditions that affected local populations.
- 6.6.15 In addition to archaeological interest, setting also makes a contribution to the asset's cultural significance.

Setting

- 6.6.16 Bloch Farm is located on a raised plateau known as Grains Moss. The enclosure is flanked by a steep slope to the south-west of the site. The asset is situated at a point where the valley naturally narrows, so as to utilise that strategic point of control. The setting of the asset is shown in Plate 1.

Plate 1: Bloch Farm (SM4690)



6.6.17 Overlooking Wauchope Water, the asset has clear views east and west along the valley of the watercourse. The asset is flanked by Bloch Hill and Bught Knowe, with westerly views of Healy Hill and St Brides Hill, overlooking Bigholms Burn. The ridge line the asset sits on is situated at an elevation of 140m Above Ordnance Datum (AOD), below the sharp incline of Bloch Hill and Graham's Knowes, the plateau which utilises the steep rising sides of Bloch Hill and Bloch Burn to the south-east.

6.6.18 The asset is situated within a fenced off area of rough grazing, overlooking the B7068 which runs through the valley off Wauchope Water. To the immediate east of the site there is historical deciduous forestry within which the asset was previously depicted as a fort. It is shown on Roy's Lowlands Military Map (1745-55) screening views to the east and south-east. There is also conifer plantation, Brocklinns Bank, to the north and north-east of the asset.

Contribution of Setting to Significance

6.6.19 Not all aspects of a heritage asset's setting will contribute to its cultural significance. Some aspects will be neutral, others may detract. The following aspects of the setting of Bloch Farm, Enclosure are considered to contribute to its cultural significance:

- the level of preservation of the enclosure and its embankments. The clear banks and ditches that have survived to present contribute to the archaeological value of the site;
- Grains Moss, the plateau on which the asset is strategically located, allowing it to take advantage of the narrowing of the valley to exert control over localised movement, and for purposes of defensibility;
- Wauchope Water, the watercourse that would have provided fresh water and other resources to the local population, as well as forming a principal routeway for travel, trade and communications; and
- surrounding non designated heritage assets (listed in 6.6.13), heading eastward to the town of Langholm. These surviving Iron Age assets along the valley would have formed part of the same Iron Age landscape as Bloch Farm, and thus help contextualise its siting and function.

6.6.20 The following aspects of the setting of Bloch Farm, Enclosure are considered to detract from its cultural significance:

- Solwaybank Wind Farm, in particular the visual intrusion of wind turbines T4 and T5 into the valley.

6.6.21 The following aspects of the setting of Bloch Farm, Enclosure are considered to have a neutral effect upon its cultural significance:

- the surrounding agricultural land, including the post-medieval and modern farmsteads, and the minor roads connecting them;
- Brocklinns Bank Plantation;
- the existing wind turbines at Ewe Hill Wind Farm and Craig Wind Farm; and
- the overhead telephone cables that transect the B7068.

Development Effects

6.6.22 The proposed development would see the introduction of 21 wind turbines on the summit and crests of Bloch Hill and Grahams Knowes. The closest of these - T8 - is situated 0.8km to the south-east of the asset. Analysis of the ZTV suggests that all of the 21 proposed wind turbines will be visible from the asset (Figure 6.2).

6.6.23 With reference to the section above, the only one of the contributing aspects of setting to the cultural significance of the asset that would be affected by the proposed development would be the visual association with other assets in the valley that it sits within. The views from the asset along the watercourse of Wauchope Water to the east and west are key views from the asset that contribute to its significance. Within these views to the west, wind turbines T4, T5, T6 and T19 would likely be seen (Figure 6.14). It is the key views to the east, however, that make the greater contribution to the significance of the monument, as the assets with which it shares the most critical spatial and visual associations are situated to the east on the southern slopes of Calfield Rig and Tansy Hill. Wind turbines that would have the potential to encroach on this view would be T4, T5, T6, T7 and T8.

6.6.24 The majority of the proposed development would be located to the south of the asset. As such, while this may result in a slight erosion of the ability to appreciate those aspects of the asset's setting that contribute to its cultural significance, it would not compromise the overall intelligibility of the asset as a fortified enclosure or the ability to experience the asset within its setting. Views from non-designated assets towards the monument would include the proposed development, but given that the asset is not located in a prominent location, but on an outcrop within the valley bottom, overlooking the plains along the course of Wauchope Water, it is unlikely to detract from these views, and the relationship between the assets would remain intelligible.

6.6.25 The proposed development would result in a comparatively modest level of effect upon only one of multiple positively contributing aspects of the asset's setting, the remainder of which would be preserved. A medium adverse magnitude of impact would be anticipated, resulting in an overall Moderate level of effect which is considered Significant in EIA terms. The operation of the proposed development would not result in such a high level of impact that it would adversely affect the integrity of the asset's setting. Despite the anticipated changes to the reciprocal views between the asset and those at Calfield Rig to the north of Wauchope Water, their association would remain intelligible. Fundamentally the relationship between the monument at Bloch Farm and its strategic spatial and visual association with the valley of Wauchope Water would be preserved, as would the ability to understand, appreciate and experience the monument.

Mitigation

6.6.26 Mitigation has been embedded into the design of the proposed development. This can be seen in detail in Chapter 3: Design Evolution. Main design considerations are offsetting the proposed development 0.8km away from the asset. This was to ensure that main views had a reduced visual impact upon the setting of the asset.

6.6.27 Reduction of heights of the turbines on Bloch Hill were also embedded, these were reduced to 180m (T19, T20 and T21 from 230m which was proposed at Scoping). Turbines located within the main views from Bloch Farm (SM4690) to the east and west down Wauchope Water were also reduced (T5 and T7 were reduced to 200m from 230m at Scoping).

6.6.28 There is the potential for future enhancement of the asset in line with Our Place in Time, OPiT, (2014) in terms of public benefit to appreciate the asset.

Upland Farmsteads

Callisterhall, Farmstead (SM4520)

6.6.29 Callisterhall farmstead (SM4520) is a pre-improvement farmstead dating to the Medieval period. The monument consists of four rectangular houses with 2 hectares of rig and furrow. Field banks and rig and furrow are well preserved for the area. The Agricultural Revolution in Scotland began in the early 17th Century, with many farms operating as economically self-sustaining. The significance of the asset largely derives from its preservation, which has the potential to increase our understanding of the farmstead and the wider economy of the upland areas of southern Scotland prior to the Agricultural Revolution.

6.6.30 Callisterhall is situated on the southern slopes of Standingstone Edge, most probably to capitalise on the optimum light conditions for purposes of cropping. The asset is

also located approximately 0.2km to the east of the route of Pokeskine Sike. Local water sources such as Pokeskine Sike would have been key to the successful agricultural exploitation of the surrounding land.

6.6.31 The asset is potentially contemporaneous with Cleuchfoot Farmstead (SM4687), Broomholmsheils Farmstead (SM4689) and Broomholm Farmstead (SM4688), as well as others in the area around the River Esk and its tributaries. These assets are all also positioned in areas that maximise sunlight exposure, and all have been scheduled for the potential to enhance our understanding of historic farming practices within upland southern Scotland.

6.6.32 The asset is situated in rough grazing surrounded by commercial conifer plantations, with Callisterhall Farm located approximately 0.3km to the south-west. The closest turbine to the asset is T5, approximately 1.7km to the south-east. Figure 6.2 suggests that all 21 turbines would theoretically be visible.

6.6.33 The asset derives significance from its archaeological interest as well as its spatial, visual and historic relationship(s) with other surrounding assets, such as SM4687 to the north-east and SM4688 to the east. Its relationship to the watercourses such as Pokeskine Sike to the north-east from the proposed development, are also key to its significance.

6.6.34 As a scheduled monument, the asset is of High significance. It is predicted that the proposed development would result in a Very low Adverse Magnitude of impact and an overall Very Slight significance of effect. The addition of the proposed development would not distract from the ability to understand, appreciate or experience the monument.

Cleuchfoot, Farmstead (SM4687)

6.6.35 Cleuchfoot comprises a pre-improvement farmstead dating to the Medieval period. It survives as a platform building measuring approximately 7.2m by 2.5m with a stack stand and three other buildings. Unlike at Callisterhall, there are also cultivation terraces adjacent to the farmstead; such terraces are unique to the types of farmsteads in this area and make an intrinsic contribution to their significance in enhancing our understanding of the local medieval economy.

6.6.36 The asset is situated on the south-eastern facing slope of Tansy Hill, overlooking the confluence of Willy Sike and Glencorf Burn. The asset is located within an area of upland rough grazing on a slight knoll. There has been little change subsequent to the asset's abandonment, with the exception of the addition of a modern sheepfold over part of the farmstead.

- 6.6.37 The closest proposed wind turbine to the asset is T20, located approximately 3km to the south-east. Figure 6.2 suggests that all 21 wind turbines would be theoretically visible from the monument. However, like Callisterhall, the significance of the asset derives primarily from its archaeological interest and its relationship with other surrounding assets, such as **SM4520** to the south-west and **SM4688** to the south-west. Its relationship to the watercourses such as Willy Sike, located to the south, and Glencorf Burn, located to the east, are also key to its significance.
- 6.6.38 As a scheduled monument, the asset is of High significance. It is predicted that the operation of the proposed development would result in a Very low Adverse Magnitude of impact and an overall Very Slight significance of effect. The addition of the proposed development would not distract from the ability to understand, appreciate or experience the monument.
- Scots Dike (SM660)*
- 6.6.39 Scots Dike is a manmade structure that comprises the last physical remnant of the historic border between Scotland and England. Physically, it comprises a Ditch and Bank formation, with the scheduled length being 5.5km long, 15m wide, and a maximum 1.5m tall. Dating to the 16th Century AD, the monument was constructed to resolve disputes over land between the neighbouring regions, often known as ‘debateable land’, where there was known raiding both north and south of the border, and was used to control the land in both countries. The scheduled monument is the only one of its type in Scotland.
- 6.6.40 The asset connects the Rivers Esk and Sark, which defined a natural break in the landscape, similar to the Solway Firth and River Tweed. Its association with these two watercourses is fundamental, having influenced its form and location, and they therefore make a key contribution to its setting. Notwithstanding this, it is more the intangible sense of nationality and border/frontier that pertains to the asset, which contributes to its significance, than the surrounding physical landform and associated landscape features, which primarily comprise a modern farmland expanse.
- 6.6.41 Forestry had been introduced into the asset’s setting by the time of production of the 1st Edition OS Map (1843). The listing description notes that the tree growth would create rooting and displacement of archaeological contexts within the monument, diminishing its archaeological interest. Historical farmsteads such as Scotdike Farm located adjacent to the scheduled area, and Todhillwood Farmstead, now stand along the A7, a major route into Scotland, and the sight, sound and smell of the modern traffic now forms a distinct part of the asset’s setting.
- 6.6.42 The site is located approximately 5km to the north of the asset, with T13 being located 5.5km to the north. As Figure 6.2 and Figure 6.4 suggest, the whole proposed development would theoretically be visible. Whilst the proposed development would be visible, the significance of the monument derives from its archaeological interest which are mentioned in paragraph 6.6.40. Key contributing aspects of its setting, as follows:
- its placement between the Rivers Sark and Esk, utilising the flat plateau in the landscape and creating a natural boundary; and
 - its intangible setting, this being the sense of history and border between Scotland and England.
- 6.6.43 As a scheduled monument, the asset is of High significance. It is predicted that the operation of the proposed development would result in a Very low Adverse Magnitude of impact and an overall Very Slight significance of effect. The addition of the proposed development would not distract from the ability to understand, appreciate or experience the monument.
- Greenleuch Cottage (SM4397)*
- 6.6.44 The monument comprises a defensive settlement, likely dating to the Iron Age, subcircular in plan and with an approximate diameter of 41m. The asset includes a boundary embankment 1.5m high from the base of the adjacent ditch, with a concentric rampart 16m inside the outer bank. Internally, earthworks are evident, including a series of platforms of probable domestic character.
- 6.6.45 A modern sheepfold is located within the asset, along with numerous post and wire fences, and a modern forestry access track runs immediately adjacent. It is noted in the scheduling description that the 19th century sheepfold has only caused superficial damage.
- 6.6.46 The asset is situated on the south-western slopes of Cockgair Hill, above the Bigholm Burn. Located at 280m AOD, the settlement occupies a controlling position in the valley as it is located on the curve of the hill giving overarching views both northwards up the valley towards the source of Bigholm Burn, as well as views to the south-east as the valley curves eastwards and partially south.
- 6.6.47 The asset is located within a modern commercial conifer plantation, surround on all sides by trees. The closest historical farm, which may be contemporaneous with the sheepfold, is Shaw Farm, approximately 1.2km to the south-east.

- 6.6.48 The site is situated approximately 2.5km to the south of the asset, with the closest proposed wind turbine being T5 (3.5km to the south). It is predicted that 20 of the proposed 21 wind turbine tips would theoretically be visible from the asset (Figure 6.2). However, as described, the primary setting contributor to the asset's significance is the valley of Bloch Burn, and this key spatial, visual and historical association between the two would be preserved. The contributions of setting to the assets significance primarily relate to the Bloch Burn valley and control of this valley, the addition of the proposed development would not impact our ability to understand, appreciate or experience the monument and it's setting as the proposed development would be beyond the assets control and thus in the periphery of its setting.
- 6.6.49 As a scheduled monument, the asset is of High significance. It is predicted that the operation of the proposed development would result in a Very low Adverse Magnitude of impact and an overall Very Slight significance of effect. The addition of the proposed development on the periphery of the monument's wider setting would not distract from the ability to understand, appreciate or experience the monument.
- Birrens Hill (SM645)*
- 6.6.50 The monument consists of a multiperiod enclosure and farmstead. The enclosure itself dates to the Iron Age with the farmstead a later addition, likely during the medieval or post medieval period. The farmstead is located in the southern part of the monument. The later farmstead remains cluster at the south of the enclosure and the boundary which follows the line of the enclosure's eastern side.
- 6.6.51 The asset's Iron Age manifestation is believed to have been defensive in nature, due to its siting upon a ridge projecting out of Carruthers Fell, with views to the south over Solway Plain. The views of, and association with, Penben Burn Valley would have been key to the fort's population, allowing for the monitoring and administration of movement along the valley, in kind with the other scheduled forts described previously (**SM12663** to the north-west and **SM3963** to the north), both defensive enclosures and settlements utilising the control over their respective valleys.
- 6.6.52 The later re-use of the site, for pre-improvement farming, shows a preference for the southern slopes of Birrens Hill, optimising sunlight exposure for agricultural purposes.
- 6.6.53 To the north of the asset there is a modern post and wire fence, which intrudes upon the scheduled area, but is not a part of the scheduled monument, as well as a gate and stone. Modern access tracks run adjacent and perpendicular to the asset leading south down Birrens Moss to Carruthers Farm and an unnamed road linking the B7068 to the north and the B722 to the south. Directly West of the asset by approximately 1.8km is Minsca Wind Farm, where all 16 of the wind turbines are currently visible from the asset. To the east of the asset, all 16 wind turbines of Solwaybank Wind Farm are also visible.
- 6.6.54 The site is located approximately 4.7km to the east of the asset with the closest wind turbine being T5 (5.7km to the east). Whilst it is predicted that all 21 wind turbines would be theoretically visible, they would sit behind the existing Solwaybank Wind Farm wind turbines. The proposed development would not interrupt those key views southward across Solway Plain or along the valley to the east of Penben Burn.
- 6.6.55 As a scheduled monument, the asset is of High significance. It is predicted that the operation of the proposed development would result in a Very low Adverse Magnitude of impact and an overall Very Slight significance of effect. The addition of the proposed development on the periphery of the monument's wider setting would not distract from the ability to understand, appreciate or experience the monument.
- Kirtlehead (SM12720) and Does Hill (SM12739)*
- 6.6.56 Kirtlehead (**SM12720**) and Does Hill (**SM12739**) are both settlements dating to the late Bronze Age or early Iron Age. **SM12720** comprises a ring ditch roundhouse, approximately 9m in diameter. Its northern half is terraced into the slope of Does Hill, with the southern half of the house consisting of a shallow ditch with a low external bank to the south and south-east.
- 6.6.57 Does Hill (**SM12739**) is a defended settlement, comprising two scooped settlements and at least one roundhouse. The settlement defences comprise three ramparts, the largest inner rampart being 2.4m high. Located proximate to, and being contemporaneous with, Kirtlehead (**SM12720**), these assets have been considered together for purposes of setting assessment.
- 6.6.58 The assets are both situated on the southern slopes of Does Hill, approximately 0.1km apart. The assets relate to other prehistoric assets of a similar nature in the area, such as Greenleuch Cottage (**SM4397**), Newhall Hill (**SM3963**) and Kirtlehead (**SM12621**). While the assets relate to one another, they are not intervisible and the visibility therefore does not contribute to the significance of either asset.

- 6.6.59 Overlooking the confluence of Red Syke, Pound Fall, March Sike and Peat Sike converging into the Kirtle Water, both assets retain a clear association with the valley, with long distance views over Solway Firth possible from both, originally for defensive purposes.
- 6.6.60 Both assets are otherwise situated within, and overlook, a pastoral landscape, with intervening pockets of modern conifer plantation, such as at Braidhead and Little Snab. Larger plantations are located on the hills to the west and south of the assets, including to the south at Gowd Muir and to the east at Raes Knowe. The assets overlook Kirtlehead and Winterhope farms that date back to the 19th Century. In addition, Winterhope Reservoir, first depicted on Ordnance Survey 1:25,000 mapping of 1954, is located approximately 0.9km to the south of the assets in the valley below. Located approximately 2.2km directly south of the assets is Solwaybank Wind Farm, of which there are clear views, particularly from Kirtlehead (**SM12720**) due to its elevated location.
- 6.6.61 The site is located approximately 2.6km to the south-east of the assets, with the closest wind turbine being T5 (4.1km to the south-east). Whilst it is predicted that all 21 wind turbine blade tips will be theoretically visible from the assets, it is predicted that 19 of those would be hubs and only five would be the full wind turbines. The proposed development would sit on the periphery of the asset's setting, incidental to their key commanding views across the valley and the Solway Plains, in a landscape already characterised by wind turbines, including those at Solwaybank Wind Farm. As such the proposed development would be to the east, away from the clear views to the south and south-west over Solway Plains which is a key view that contributes to the significance of the monuments.
- 6.6.62 As scheduled monuments, the assets are of High significance. It is predicted that the operation of the proposed development would result in a Very low Adverse Magnitude of impact and an overall Very Slight significance of effect upon the significance of both. The addition of the proposed development on the periphery of the assets' wider setting would not distract from the ability to understand, appreciate or experience them.
- Calfield (SM12700)*
- 6.6.63 The monument comprises a prehistoric scooped settlement overlain by a later medieval farmstead. The prehistoric enclosure measures 25m by 15m and is dug into the south-south-west side of Naze Hill. The later farmstead measures 14.8m by 4m. The building is levelled by means of a series of platforms cut into the side of Naze Hill. The asset is detailed on Blaeu's map of 1654, which shows a potential relationship to the site of a tower house, north-east of the asset.
- 6.6.64 The significance of the monument derives from its multi period connections and associated sense of time-depth, and its archaeological interest, which has the potential to contribute to our understanding of prehistoric defended settlements and pre-improvement farmsteads.
- 6.6.65 The asset is situated in an area of rough grazing located above Becks Farm, located 0.5km to the south-east, first mapped in detail on the Ordnance Survey 1st Edition map of 1897. The asset overlooks the confluence of Pirlie Gill and Lea Burn, and the wider Wauchope Water. To the east of the asset, clear views are possible of the historical town of Langholm (2km), a town likely contemporaneous with the original occupation of the farmhouse.
- 6.6.66 Modern built form can be seen from the asset, including the modern buildings within the town of Langholm and at Becks farm, located approximately 0.5km to the south-east, and Calfield Farm, approximately 0.5km to the south-west. Additional, more prominent features include the Malcolm Monument (LB9762), located approximately 4km to the east of the asset, atop Whita Hill. Other modern intrusions also include the telecommunications tower atop Stubholm Hill, approximately 2.4km south of the asset.
- 6.6.67 The site is located approximately 1.8km to the south of the asset, with the closest wind turbine (T20) being located approximately 2.5km south-east of the asset. As per figure 6.2 and Figure 6.7, the blade tips of all of the proposed wind turbines would be theoretically visible, alongside the hubs of 16 wind turbines. Despite this, those key aspects of the asset's setting that contribute to the ability to understand, appreciate and experience it would be preserved. These include its visual and spatial relationship with the burns to the west of Pirlie Gill and Lea Burn and the views over this valley, as well as its relationship with the remains of the tower house and Langholm town itself to the north-east. The asset also derives significance from its archaeological interest, which has the potential to inform our understanding of Iron Age settlement within the Wauchope Water Valley as well, and multi period occupation, and this too would be preserved. The proposed development, whilst visible, would not impede the ability to understand, appreciate and experience the archaeological significance and the wider cultural significance of this asset.

6.6.68 As a scheduled monument, the asset is of High significance. It is predicted that the operation of the proposed development would result in a Very low Adverse Magnitude of impact and an overall Very Slight significance of effect. The addition of the proposed development on the periphery of the monument's wider setting would not distract from the ability to understand, appreciate or experience the monument.

Gibbs Hill (SM4518)

6.6.69 Gibbs Hill is a multiphase site comprising a palisaded enclosure and several timber houses; RCAHMS (1996) identified 11 structures within the palisaded enclosure, as well as rig and furrow and two platform buildings on the eastern side of Gibbs Hill. The site was occupied from the late Bronze Age period into the Iron Age.

6.6.70 Situated on the eastern slopes of Gibbs Hill, the settlement overlooks Logan Water and its confluence with Glenerock Sike, approximately 0.1km to the south-east of the asset. The asset is also flanked to the north and south by Rain Sike and Mucklewhitson Sike, providing natural defences. The asset is situated at 290m AOD on a natural outcrop atop Gibbs Hill, giving the asset clear views of the valley along Logan Water. To the north, Logan Water and Fingland Burn converge and as such the asset has clear views along both valleys.

6.6.71 To the south, the asset has views of the valley of Logans Water, albeit the watercourse meanders around the outcrop of Tansy Hill to the south-west, limiting those views. There is a non-designated asset, Cleuchfoot (MDG8044), which shares intervisibility with the monument, atop this hill. The assets share the views of the valley and clearly express a level of authority.

6.6.72 The asset is located within commercial forestry at Shaw Hill and Rashy Knowes. A modern forestry track runs perpendicular to the asset, approximately 96m to the east. A modern borrow pit, likely to facilitate the construction of the access track is located approximately 0.1km to the south-east of the asset. Located approximately 3.2km to the south-west of the asset is Solwaybank Wind Farm, the tips of all of the wind turbines being visible from the asset.

6.6.73 The site is located approximately 2.7km to the south of the asset with the closest wind turbine being T7, located approximately 3.3km from the asset. As per Figure 6.2 and Figure 6.9, it is predicted that all of the proposed wind turbines would be theoretically visible. Despite this, most of the key aspects of the asset's setting that contribute to the ability to understand, appreciate and experience it would be preserved. These include the valleys and watercourses that provided natural defence and evidently had a fundamental influence on its original siting. The

monument would not be impacted by the proposed development, nor would the ability to appreciate, understand or experience this relationship which contributes to the significance of the monument. The asset's shared views with MDG8044 and with the valleys below, and the shared intervisibility with other Bronze Age / Iron Age structures along the course of Logan Water and the western valleys of Wauchope Water are contributing factors of its significance. The listings description notes that these assets contributed to the movement along and control of these valleys.

6.6.74 However, the wind turbines would come to form a feature of those reciprocal views between the asset and MDG8044, as shown in Figure 6.9. Given this, it is assessed that the magnitude of impact upon the asset, which is of High heritage significance, would be medium adverse. This would result in a Moderate level of effect which is considered Significant in EIA terms.

Old Irvine (SM4406)

6.6.75 The monument comprises of a rectangular structure measuring 58m by 39m with a wall height and width of 4.5m by 0.5m. The monument is a scooped settlement, believed to be dated to the Iron Age. Its rectangular structure is broken into two distinct areas, whereby they are of different sizes and levels. There are two entrances, one within the upper level and one within the lower level, both to the south-east of the asset. The highest point within the asset is the back scarp of the settlement which is a maximum height of 2m.

6.6.76 The asset is situated on the south-eastern slopes of Burian Hill overlooking the confluence of Docken Beck and the River Esk. The settlement has clear views to the south overlooking the plain of the River Esk. It also has views to the south-west with flatter undulating land to the south. The asset utilises the natural peak of Bloch Hill and Whita Hill as a pinch point in the landscape, similar to that of the Roman fort Broomholm (SM2524).

6.6.77 The scheduled monument is located approximately 0.4km above the post medieval farmstead of Old Irvine and its associated buildings. Across the plain of the River Esk there are a multitude of farms buildings and arable landscape. Located approximately 50m to the south of the asset (running south-west to north-east and then running north to south) is an electrical overhead line which follows the line of the A7. The A7, a historical routeway, runs approximately 0.3km to the south-east of the asset and is a prominent modern road with regular vehicular traffic.

6.6.78 The asset is located approximately 1.6km to the east of the site, with the closest wind turbine being T21 approximately 1.7km to the west of the asset. As per Figure 6.2 and Figure 6.10, it is predicted that up to 16 of the 21 wind turbines may be visible with the hubs of 12 of these wind turbines visible. The proposed development, whilst visible, would not impact the ability to understand the relationships between the asset and its setting, notably being the pinch point in the landscape of the River Esk. The approach to the asset would also not be compromised due to the point of appreciation being from the asset looking outwards to the landscape below and its control of the valley and routeways.

6.6.79 As a scheduled monument, the asset is of High significance. It is predicted that the operation of the proposed development would result in a Very low Adverse Magnitude of impact and an overall Very Slight significance of effect. The addition of the proposed development on the periphery of the monuments wider setting would not distract from the ability to understand, appreciate or experience the monument.

Broomholm (SM2524)

6.6.80 This scheduled monument comprises of an earlier palisaded enclosure which was either overlain or deliberately destroyed for the occupation of the fort. The fort, Flavian in design, is made up of a multi period ditch and rampart sequence. The earliest, uncovered in an excavation in 1960's were two ditches and ramparts which were added to later with up to four ditches on the final phase of occupation. The fort is rectangular in profile measuring 175m by 100m. Upon the abandonment of the fort there was another fort which succeeded this, smaller in size, measuring 100m by 82m.

6.6.81 The asset occupies a raised knoll over the River Esk with clear views to the south overlooking the A7, the historical Roman Road. The asset shares a clear relationship with **SM668**, Gilnockie Roman Camp, 2.25km to the south and further south with Hadrian's Wall. The asset utilises the natural pinch point in the landscape of Broomholm Knowe and Burian Hill to control the movement up and down the routeway.

6.6.82 The asset is situated within a pastoral farmland. A pre-improvement farmstead (SM4688) located approximately 0.3km to the north likely dates to the medieval period, showing multi period occupations of the area. Similarly, the asset is located above Broomholm Farm, with deciduous forestry surrounding the asset. Directly to the west of the asset is an overhead telecommunications line with an overhead electrical line running north to south approximately 0.4km to the east of the asset.

It also overlooks the A7; whilst it was a roman routeway, it is now a heavily popular vehicular routeway creating moderate road noise. The town of Langholm is located approximately 2.5km to the north of the asset, which is visible from the asset at its height.

6.6.83 It is predicted that the site, located approximately 3km to the west, would be visible from the monument. The closest wind turbine would be T21, located approximately 3.1km to the west of the asset. As per Figure 6.2 and Figure 6.12, it is predicted that 19 of the 21 wind turbines would be visible. The proposed development whilst visible, would not impede the ability to understand, appreciate or experience the setting of the Roman Camp and its relationship with the routeway of the roman road, the A7 or other assets such as **SM668**. As shown in Figure 6.12, the proposed development would sit as a minor distraction with its main focus on controlling the valley to the north and south.

6.6.84 As a scheduled monument, the asset is of High significance. It is predicted that the operation of the proposed development would result in a Very low Adverse Magnitude of impact and an overall Very Slight significance of effect. The addition of the proposed development on the periphery of the monument's wider setting would not distract from the ability to understand, appreciate or experience the monument.

Callisterhall, Cairn (SM4519)

6.6.85 The monument is a Bronze Age cairn, with a diameter of 8m and is 0.5m high. Excavated during the early 20th century, a central cist and calcified bone were uncovered. The asset lies in rough pasture moorland, it comprises the mutilated turf-covered remains of a Bronze Age burial cairn that lies just off the east side of the summit area of a sloping ridge. It is indicated in the designations listing that the cairn is protected predominantly for its archaeological value.

6.6.86 Situated on the eastern ridge of Cock Law overlooking the confluence of the Green Burn and Glentemont Burn, the asset overlooked the valley that these watercourses sit within, with views to the north and south being significant to its views and being viewed from below. The cairn, while contemporaneous with Callisterhall Cairn (**SM4535**), does not share visibility with the Cairn, located approximately 1.75km to the north.

- 6.6.87 The asset is shrouded in conifer plantations which occupy Raes Knowes and further north to Shaw Hill, limiting the views both to and from the asset. Even when felled the forestry leaves a distinctive scar on the moorland landscape which the cairn sits within. The cairn sits above Westwater Farm, a modern farm with associated buildings located approximately 0.5km to the east from the asset with a modern housing estate and industrial buildings located approximately 1km to the south-east of the asset. Solwaybank Wind Farm is currently visible from the asset, with all wind turbines visible.
- 6.6.88 The site is located approximately 0.7km to the south-east of the asset, with the closest wind turbine being T5, located approximately 1.8km to the south-east, with the full development being visible. The visibility of the wind farm, while a prominent addition to the landscape to the south of the asset, would not impact the ability to appreciate or understand the features within the landscape that contribute to the significance of the monument, such as the valleys of Glentemont Burn and Green Burn. The addition of the proposed wind turbines would impact the relationship to extensive views to the south of the asset but there would be a medium adverse impact to this relationship.
- 6.6.89 It is therefore assessed that there would be an overall Low adverse magnitude of impact upon this asset of High heritage significance, resulting in a Slight significance of effect.
- Callisterhall, Cairn (SM4535)*
- 6.6.90 Similar to Callisterhall Cairn (SM4519) the monument is a Bronze Age burial cairn with a diameter of 6m and an overall height of 0.5m. The asset lies in rough pasture, shrouded on all sides by large conifer plantation. It is a singular cairn that's significance is derived from its ability contain well preserved remains as well as inform the histories similar to others in the area.
- 6.6.91 Located on the southern slope of Cockgair Hill, the asset overlooks the confluence of the Hallstane Gill and Glentemont Burn. The asset's location on the southern slopes at 290m AOD limits views northwards as Cockgair Hill rises to 350m AOD. Views eastwards have the potential to be significant to the asset, due to the HER point of a Cairn at the Summit of Kitty's Cairn. The find of a flint spearhead (MDG7516) and possible cairn may relate to shared views between the assets. The approach southward along the valley looking up at the cairn are clearly a point of appreciating the asset in its setting as a routeway marker along the valley.
- 6.6.92 The asset is shrouded in conifer plantations which occupy Cockgair Hill and further north and east to Shaw Hill and Mirkslair Hill, limiting the views both to and from the asset. Even when felled the forestry leaves a distinctive scar on the moorland landscape which the cairn sits within. The closest historical farm that may be contemporaneous to the sheepfold situated within the asset is Shaw Farm, which is located approximately 1km to the south-east of the asset. Solwaybank Wind Farm is currently visible from the asset, with all wind turbines visible.
- 6.6.93 The site is located approximately 2.4km to the south of the asset, with the closest wind turbine being approximately 3.5km to the south of the asset (T5). Figure 6.2 indicates that the full development would be visible. Figure 6.12 shows that 18 of the 21 wind turbines would have hubs and towers of the wind turbines visible, with the remaining three showing only tips, with Shaw Hill masking significant parts of the proposed development. The addition of the proposed development to the south of the asset would not impact the approach to the asset or the appreciation of the asset from below in the valley as the development would be behind the viewer. The proposed development would also not impact the viewer upon the departure of the asset. The views, whilst extensive would not impact the ability to understand, appreciate or experience the setting of the valley below as the proposed development is situated beyond the landscape of intended views from the asset, as these are primarily to the steep valley of Glentemont Water which dissipates beyond Raes Knowes. Whilst the proposed development would be visible from the asset, it would not significantly impact the ability to understand, appreciate or experience the monuments setting which contributes to the monument's significance due to large portions of the significance of the monument being its archaeological contributions.
- 6.6.94 It is therefore assessed that there would be an overall Low adverse magnitude of impact upon this asset of High heritage significance, resulting in a Slight significance of effect.
- Burnswark Hill (SM667)*
- 6.6.95 Burnswark Hill (SM667) is a multiperiod asset with a complex history. First dating back to the Bronze Age, with a cairn constructed at the summit. It later had the addition of an Iron Age Hill Fort, that was later flanked by Roman marching Camps and then a later Roman 'redoubt', a larger enclosure for defensive purposes.

- 6.6.96 Burnswark Hill is designated as a Scheduled Monument but also protected as an Archaeological Sensitive Area (ASA), a local protection on regions of archaeological interest within Dumfries and Galloway Council. Extensive research has occurred at Burnswark, first recorded on Alexander Gordon's Map of 1726, but was first recorded in detail upon Roy's Military Map (1752).
- 6.6.97 Situated on a raised knoll in the landscape, the fort has commanding views throughout the landscape and is obviously a strategic position of the forts (Iron Age and Roman). The asset is located along the Roman road that runs adjacent to the south-west of the asset and views to the north and south along the road are a prominent feature for its significance. Visibility of Birrens to Broadlee Fort (SM666), Roman Camps located approximately 4km to the south along the Road and the wider relationship to Hadrian's Wall are also clear contributors to the significance of the monument.
- 6.6.98 Located approximately 2.5km from the asset is the A74(M), a major motorway that runs north to south from Carlisle to Glasgow. This is a prominent routeway into Scotland and as such promotes heavy traffic including visual and acoustic distractions to the views to the south and north from the monument. Operational wind farms in the region of the asset include Minsca, Solwaybank and Ewe Hill. All of these wind farms are situated in the foreground of views to the north-east of the asset.
- 6.6.99 The site is located approximately 10km to the north-east of the asset, with the closest wind turbine being T5 situated approximately 11km to the north-east. Figure 6.2 indicates that all of the proposed development would be visible from the asset. The addition of the proposed development would be a minor addition to a landscape already occupied with closer more prominent wind farm development such as Minsca. The addition of the proposed development would not impact the ability to understand, appreciate or experience the commanding nature of this complex.
- 6.6.100 As a scheduled monument, the asset is of High significance. It is predicted that the operation of the proposed development would result in a Very low Adverse Magnitude of impact and an overall Very Slight significance of effect. The addition of the proposed development on the periphery of the monument's wider setting would not distract from the ability to understand, appreciate or experience the monument.

Hadrian's Wall (World Heritage Site: Frontiers of Roman Empire)

- 6.6.101 Hadrian's Wall is a well-known fortified frontier built in 112AD, commissioned by the emperor Hadrian. The wall spans the width of the British Isles from Wallsend to Bowness-on-Solway and is 117km long. As described by UNESCO, Hadrian's Walls is: '*a striking example of the organization of a military zone and illustrates the defensive techniques and geopolitical strategies of ancient Rome*'.
- 6.6.102 The setting of the monument is extensive and is largely similar to Scots Dike (SM660), in terms of tangible and intangible setting. The tangible being the open farmland that surrounds the wall and the intangible being the northern frontier of the Roman Empire.
- 6.6.103 The proposed development is located approximately 12.6km to the north of the wall and whilst all of the proposed wind turbines would theoretically be visible, the proposed development would be indiscernible on the skyline, blending with other renewable energy projects in the distance such as Minsca Wind Farm and Solwaybank Wind Farm.
- 6.6.104 It is therefore assessed that there would be an overall Neutral magnitude of impact upon this asset of the Highest heritage significance, resulting in a Neutral significance of effect.

Langholm, conservation area

- 6.6.105 Founded in the 15th and 16th century, the historic town of Langholm has had a turbulent history throughout the Rough Wooing⁵ and was a stronghold for English soldiers during this time. It likely predates this, with occupation of Iron Age and Roman monuments in the area. Predominantly comprising of 18th century buildings, the conservation area of Langholm is limited to the historic element of the town focusing on the textile trades in the 18th century and the River Esk.

⁵ The Rough Wooing (December 1543 - March 1551), originally known as the Eight Years' War, was part of the Anglo-Scottish Wars of the 16th century.

6.6.106 The contributors to the significance of the conservation area are its historical built environment and their relationship to one another. The site is located approximately 2.5km to the south-west of the conservation area with the closest wind turbine being T21 (approximately 3.6km to the south-west). Figure 6.2 indicates that 16 of the 21 blade tips would be visible of the proposed development, throughout the conservation area. When focussing on key points of appreciation, understanding and experience of the conservation area (such as the approach from the A7 south, along with the crossing of the bridge to the west and travelling along the high street) large portions of the proposed development would be screened by the built environment of the conservation area and beyond within the town of Langholm. Additional screening of deciduous forestry which surrounds the town would also screen the proposed development from any points of appreciation (see Figure 5.20 VP7 Langholm).

6.6.107 It is therefore assessed that there would be an overall Neutral magnitude of impact upon this asset of Medium heritage significance, resulting in a Neutral significance of effect.

Decommissioning Effects

Embedded Measures

6.6.108 The landscape would be reinstated to its original state following decommissioning.

Potential Effects

6.6.109 There would be no negative post operational effects upon the setting or significance of any assets within 15km, as the landscape would be returned to its original state. There would be no direct effects on any assets as there would be no new ground works during this stage.

Residual Post-Operational Effects

6.6.110 There would be no residual effects resulting from the decommissioning of the proposed development.

6.7 Mitigation

Direct Construction Effects

6.7.1 As outlined in paragraph 6.6.7, mitigation in the form of an archaeological watching brief of SLR111 is proposed, subject to agreement with DGC Archaeological Officer.

Operational Effects

6.7.2 Design mitigation measures are outlined in the Embedded Measures section.

De-Commissioning Effects

6.7.3 As outlined in paragraph 6.6.110, decommissioning of the proposed development would not result in any adverse effects, and thus no mitigation is proposed.

6.8 Assessment of Residual Effects

Direct Effects

6.8.1 As outlined in paragraph 6.6.1, mitigation in the form of a post felling walkover for SLR111 is proposed. Any residual effect shall be for the benefit of the archaeological community and preserved through recording in agreement with the DGC Archaeological Officer.

Operational Effects

6.8.2 Residual Operational effects are summarised in Table 6.7.

De-Commissioning Effects

6.8.3 As outlined in paragraph 6.6.110, decommissioning of the proposed development would not result in any adverse effects and thus there would be no residual effects.

6.9 Assessment of Cumulative Effects

6.9.1 Cumulative effects have been considered with regard to any wind farm developments 50m to blade tip or greater that are:

- consented or the subject of valid but currently undetermined planning or s36 applications); and
- within 15km of assets of any nationally important assets anticipated to be subject to a Moderate adverse effect (or above) as a result of the proposed development.

Bloch Farm (SM4690)

6.9.2 Bloch Farm, enclosure (SM4690) is described in paragraphs 6.6.12- 6.6.29. A photomontage of the asset can be found in Figure 6.14.

6.9.3 The proposed Callisterhall Wind Farm is located approximately 4.5km to the north-west of the monument. The scheme consists of seven wind turbines where all wind turbines would be visible away from the asset.

6.9.4 Whilst both developments would be visible from the asset and there would be a peripheral change to the asset’s setting, those interests and the aspects of setting that make the greatest contribution to its significance (paragraph 6.6.27) would be preserved.

6.9.5 There would be a very low adverse cumulative effect upon this asset.

Gibbs Hill (SM4518)

6.9.6 Gibbs Hill, Palisaded Enclosure (SM4518) is described in paragraphs 6.6.69- 6.6.74. A photomontage of the asset can be found in Figure 6.8.

6.9.7 Callisterhall Wind Farm is located approximately 2.5km to the west of the monument. The consented scheme consists of six wind turbines where 4 - 5 wind turbines would be visible to the west of the proposed development.

6.9.8 Whilst both developments would be visible from the asset and there would be a peripheral change to the asset’s setting, those interests and aspects of setting that make the greatest contribution to its significance (paragraphs 6.6.72 and 6.6.73) would be preserved.

6.9.9 There would be no cumulative effect upon this asset.

6.10 Summary

6.10.1 This assessment has considered data from a diverse range of sources in order to determine the presence of heritage assets which may be affected by the proposed development. The potential direct and indirect effects of the proposed development on the identified assets, mitigation measures for protecting known assets during construction or recording of currently unknown features which could be lost due to groundworks during construction, and the residual effects of the proposed development have also been assessed.

6.10.2 The assessment has considered the potential indirect impacts on the designated heritage assets outlined in Table 6.7, which provides a summary of the identified significance of effect upon them.

Table 6.7: Summary of Residual Effects

Asset	Likely Significant Effect	Mitigation	Means of Implementation	Residual Effect
Bloch Farm (SM4690)	Moderate	N/A	N/A	Moderate
Gibbs Hill (SM4518)	Moderate	N/A	N/A	Moderate
Scots Dike (SM660)	Very Slight	N/A	N/A	Very Slight
Greencleuch Cottage (SM497)	Very Slight	N/A	N/A	Very Slight
Birrens Hill (SM645)	Very Slight	N/A	N/A	Very Slight
Kirtlehead (SM12720)	Very Slight	N/A	N/A	Very Slight
Does Hill (SM12739)	Very Slight	N/A	N/A	Very Slight
Cleuchfoot (SM4687)	Very Slight	N/A	N/A	Very Slight
Old Irvine (SM4406)	Very Slight	N/A	N/A	Very Slight
Callisterhall (SM4519)	Slight	N/A	N/A	Slight
Callisterhall (SM4520)	Very Slight	N/A	N/A	Very Slight
Broomholm (SM2524)	Very Slight	N/A	N/A	Very Slight
Calisterhall (SM4535)	Slight	N/A	N/A	Slight
Calfield (SM12700)	Very Slight	N/A	N/A	Very Slight
Burnswark Hill (SM667)	Very Slight	N/A	N/A	Very Slight
Hadrians Wall	Neutral	N/A	N/A	Neutral
Langholm Conservation Area	Neutral	N/A	N/A	Neutral

6.10.3 While a Moderate significance of effect has been identified in relation to Bloch Farm (SM4690) and Gibbs Hill (SM4518), efforts have been taken to ensure that the aforementioned assets have been considered during the design process and have assisted in ensuring the overall effect of the proposed development would not exceed an Adverse Moderate impact.

6.10.4 Bloch Farm (SM4690) and Gibb’s Hill (SM4518) have resulted in a Moderate impact and these impacts are not considered to be of such significance that they would reduce the ability to understand or appreciate those assets, and the integrity of their settings would therefore not be adversely affected. As the integrity of both assets settings would be preserved, the proposed development would thus be consistent with Paragraph 145 of Scottish Planning Policy (2014).