

10 Archaeology & Cultural Heritage

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10 Archaeology & Cultural Heritage

10.1 Executive Summary

- 10.1.1 This chapter considers the environmental effects of the Proposed Development on archaeology and cultural heritage (historic environment sites and features, archaeology and built heritage), describing the results of a desk-based assessment undertaken by CFA Archaeology Ltd (CFA). The assessment also takes into account comments provided in Scoping Opinions by Historic Environment Scotland (HES) and South Lanarkshire Council (SLC).
- 10.1.2 The baseline assessment has established that there are 14 cultural heritage assets that lie within the site. These assets have all been avoided by the design of the wind farm layout, and mitigation has been proposed that would address any potential direct effects upon previously unrecorded cultural heritage sites. Taking account of the current land-use and surrounding historic landscape character, the potential for further archaeological discoveries within the site is assessed as being low.
- 10.1.3 The assessment has considered the effect of the Proposed Development on the settings of designated heritage assets in the wider landscape following the approach approved by HES. The effects on the settings of heritage assets are assessed as being not significant in EIA terms.
- 10.1.4 The cumulative effect resulting from the addition of the Proposed Development to the emerging baseline of operational, consented and in planning applications is assessed as being not significant.

10.2 Introduction

10.2.1 This chapter considers the environmental effects of the Proposed Development on archaeology and cultural heritage (historic environment sites and features, archaeology and built heritage); hereafter referred to as 'heritage assets'. The chapter details the results of a desk-based assessment by CFA Archaeology Ltd (CFA), and draws on comments provided by Historic Environment Scotland (HES) and the South Lanarkshire Council (SLC) in Scoping Opinions.

10.2.2 The specific objectives of the study were to:

- Identify the cultural heritage baseline within and in the vicinity of the site.
- Assess the site in terms of its archaeological potential.
- Consider the effects of the construction, operation and decommissioning of the Proposed Development on heritage assets, within the context of the relevant legislation and planning guidance.
- Consider the cumulative effects of the Proposed Development in combination with other existing or proposed developments, upon cultural heritage assets.

10.2.3 The assessment evaluates the effects of the Proposed Development on:

- World Heritage Sites;
- Scheduled Monuments and other archaeological features;
- Listed Buildings and other buildings of historic or architectural importance;
- Conservation Areas;
- Gardens and Designed Landscapes; and
- Historic Battlefields.

10.2.4 It assesses the potential direct effects on assets within the site and the indirect effects of the Proposed Development on the settings of heritage assets in the wider landscape.

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

- Figure 10.1: Cultural Heritage: Inner Study Area.
- Figure 10.2: Cultural Heritage: Outer Study Area.
- Figure 10.3: Cultural Heritage: Cumulative Developments
- Figures 10.4 to 10.7: Cultural Heritage Visualisations.
- Technical Appendix 10.1: Heritage Assets within the Inner Study Area.
- Technical Appendix 10.2: Heritage Assets within Outer Study Area and within 5k m of the Proposed Development.
- Technical Appendix 10.3: Heritage Assets within Outer Study Area and between 5 km and 10 km of the Proposed Development.
- Technical Appendix 10.4: Heritage Assets outside the Outer Study Area.

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

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

10.3 Legislation, Policy and Guidelines

Legislation

10.3.1 Relevant legislation and guidance documents have been reviewed and taken into account as part of this assessment. Of particular relevance are:

- The Ancient Monuments and Archaeological Areas Act 1979;
- Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 (as amended by Town and Country Planning (Historic Environment Scotland) Amendment Regulations 2015));
- The Electricity Act (1989) Schedule 9 (paragraph 3);
- Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013; and
- Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.

Planning Policy

10.3.2 National planning policy relevant to archaeology and cultural heritage that has been considered as part of this assessment includes:

- National Planning Framework for Scotland 3 (NPF3) (Scottish Government, 2014);
- Scottish Planning Policy (SPP) (Paragraphs 135-151). (Scottish Government, 2014);
- Historic Environment Policy for Scotland (HEPS) (HES, 2019);
- Planning Advice Note 1/2013 (PAN 1): Environmental Impact Assessment (Scottish Government, 2013); and
- Planning Advice Note 2/2011 (PAN 2): Planning and Archaeology (Scottish Government, 2011).

10.3.3 Local planning policies relevant to archaeology and cultural heritage that has been considered as part of this assessment include:

- South Lanarkshire Local Development Plan (2015) (SLLDP) (Policies 15 (Natural and Historic Environment) and 19 (Renewable Energy));
- SLLDP Supplementary Guidance No 9: Natural and Historic Environment (Chapter 3: Historic Environment);
- SLLDP Supplementary Guidance No 10: Renewable Energy;
- SLLDP2 Policy NHE1 New Lanark World Heritage Site;
- SLLDP2 Policy NHE2 Archaeological Sites and Monuments;
- SLLDP2 Policy NHE3 Listed Buildings;
- SLLDP2 Policy NHE4 Gardens and Designed Landscapes; and
- SLLDP2 Policy NHE6 Conservation Areas

Guidance

10.3.4 Recognisance has been taken of the following best practice guidelines and guidance:

- Environmental Impact Assessment Handbook (SNH and HES, 2018);
- Standard and Guidance for Historic Environment Desk-Based Assessment (Chartered Institute for Archaeologists, 2014);

- Designation Policy and Selection Guidance (HES, 2019b);
- Managing Change in the Historic Environment: Setting (HES ,2016);
- Historic Environment Scotland Policy Statement 2016 (HESPS); and
- Historic Environment Scotland 2016 ‘Managing Change in the Historic Environment: Setting’.

10.4 Consultation

10.4.1 HES and SLC have provided Scoping Opinions relevant to the cultural heritage assessment in response to the EIA Scoping Report submitted in June 2020, and are summarised in Table 10.1.

Table 10.1 – Scoping Consultation Responses

Consultee	Consultation Response	Applicant Action
HES Scoping Opinion (23/07/2020)	Confirmed that no heritage assets within HES remit are located within the development site boundary.	Noted.
	Advised that the proposals may give rise to setting impacts of a number of heritage assets located in the vicinity of the Proposed Development.	Noted. The assessment of effects on setting follows the guidance provided by HES (‘Managing Change in the Historic Environment: Setting’ (2016)). The assessment is presented in Technical Appendices 10.2 and 10.3 and in Section 10.7.
	Advised that HES is content with the proposed assessment methodology as set out in the scoping report.	Noted. The assessment of effects on cultural heritage follows the methodology set out in the Scoping Report.
	Advised that assessment should be made for the potential impacts on the Outstanding Universal Value (OUV) of the New Lanark World Heritage Site (WHS) and on the setting of the Falls of Clyde Inventory Designed Landscape (GDL358) located outside the Outer Study Area. Recommended	Noted. Follow-up consultation taken with HES (see below).

Consultee	Consultation Response	Applicant Action
	<p>visualisations of views across the WHS from Braxfield Road and from the Corra Linn, Bonnington Pavilion (Category A listed building, LB13065) located within the WHS.</p>	
	<p>Suggested that any cumulative impacts resulting from this development in combination with other existing and proposed wind farm developments within the surrounding area should be carefully considered.</p>	<p>Noted. Cumulative impacts are addressed in the chapter (Section 10.10).</p>
<p>HES (Post-scoping Consultation response) (03/08/2020).</p>	<p>Confirmed a wireline visualisation from the Corra Linn, Bonnington Pavilion viewpoint demonstrating that there would be no visibility of the proposals is acceptable. Confirmed that the location of the viewpoint on Braxfield Road was acceptable.</p>	<p>Noted. Visualisations provided from the agreed locations in the agreed format. (see Figures 10.6 and 10.7)</p>
<p>SLC Scoping Opinion (02/09/2020)</p>	<p>Confirmed that the assets identified in the Scoping Report are the only ones which are recorded on the HER within the proposed development site. Noted however that others are recorded within close proximity to the site boundary and consideration should be given to these in regard to the wider archaeological context of the site.</p>	<p>Noted. The Inner Study Area has included a buffer of 1 km around the Proposed Development site to include nearby heritage assets within the baseline and informing the assessment of archaeological potential.</p>
	<p>Advised that consideration should be given to the potential impact of the proposed turbines on the setting of non-designated</p>	<p>Noted. Due to current Covid-19 restrictions it was not possible to obtain a digital dataset of the HER from</p>

Consultee	Consultation Response	Applicant Action
	assets within the Outer Study Area, including those recorded on the HER in the non-statutory register (NSR) which may be of regional importance.	WoSAS. An online search of the WoSAS HER was undertaken and it was not possible to identify NSR classification codes for all non-designated heritage assets within the Outer Study Area from that source.
	Advised that the range of sources that will be consulted during the desk-based phase of the assessment process appears to be suitably comprehensive.	Noted.
	Advised that not undertaking a field walkover survey, as identified within the Scoping Report may mean that there is no opportunity to identify previously unrecorded but visible features which may be impacted by the Proposed Development.	Noted. Further site survey is considered within the mitigation measures outlined in Section 10.8.
	Advised that consideration should be given to the use of LiDAR data to identify any potential archaeological remains within the Inner Study Area.	Noted. LiDAR data sets were reviewed via the Scottish Government website. Only very limited coverage was available (on the north-eastern edge of the Proposed Development site) and no archaeological features were evident.
	Advised that the Council does not agree with the conclusion of the Scoping Report that there is considered to be a low potential for any significant direct effect on cultural heritage assets to arise from construction work as there	Noted. Archaeological potential and potential effects are considered in Sections 10.6 and 10.7.

Consultee	Consultation Response	Applicant Action
	may be further archaeological remains within the site that are currently unrecorded.	
	Advised that the Council agrees with the potential mitigation measures outlined within the Scoping Report but reiterates the need for some site survey work.	Noted. Requirements for site survey is addressed in the mitigation measures outlined in Section 10.8.

10.5 Assessment Methodology and Significance Criteria

Study Area

10.5.1 Following the approach agreed through Scoping, the archaeology and cultural heritage assessment has adopted the following defined study areas:

- The Inner Study Area (refer to Figure 10.1): the main body of the Proposed Development site (excluding existing access road, see section 10.5.2 below), defined by the site red line boundary, within which turbines and associated infrastructure are proposed, extended by 1 km, forms the study area for the identification of heritage assets that could receive direct effects arising from the construction of the Proposed Development and informing the archaeological potential of the site.
- The Outer Study Area (refer to Figure 10.2): a wider study area extending 10 km from the outermost proposed turbine locations is used for the identification of cultural heritage assets whose settings may be affected by the Proposed Development (including cumulative effects). Views towards any assets identified as having settings sensitive to change have been considered, even where no visibility is predicted from the asset. The wider ZTV was also assessed to identify any designated assets beyond 10 km that have settings that may be especially sensitive to the Proposed Development. From this, Black Hill fort and cairn (SM 2882) was identified as having a setting where wide ranging views are an important aspect of its setting and it is included in the assessment.

10.5.2 The assessment excludes the length of access track which would be taken from the public road, using existing access track through Cumberhead Forest, because the access would make use of existing tracks. The exception to this is a short stretch of track which would be created for the Proposed Development if the proposed Douglas West Extension Wind Farm is not built in advance. This 1.38 km section of new track has been assessed separately in Appendix 3.3 of the EIA Report.

10.5.3 Following the Scoping Opinion request from HES (23/07/2020), the following cultural heritage assets, which fall outside of the Outer Study Area, are included in the assessment at the specific request of HES; they are also shown on Figure 10.2 and 10.3:

- New Lanark World Heritage Site; and
- The Falls of Clyde Inventory Garden and Designed Landscape (GDL358).

Desk Study

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

- Historic Environment Scotland Spatial Data Warehouse (HES 2020a): provided up-to-date data on the locations and extents of Scheduled Monuments, Listed Buildings, Conservation Areas, Inventory status Garden and Designed Landscapes and Inventory status Historic Battlefields.
- WoSAS Historic Environment Record (HER): the online database was accessed to obtain HER data for an area encompassing the Proposed Development site, in order to inform the assessment of the archaeological potential of the site.
- The National Record for the Historic Environment (NRHE; Canmore) (HES 2020b): for any information additional to that contained in the HER.
- Relevant bibliographic references were consulted to provide background and historic information.
- Map Library of the National Library of Scotland: for Ordnance Survey maps and other historical map resources.
- Historic Land-Use Assessment Data for Scotland (HLAMap) (HES 2020c): for information on the historic land use character of the Site and the surrounding area.
- Scottish Government (2020): LiDAR data at 1 m resolution was downloaded from the Scottish Remote Sensing Portal and examined to identify potential features of archaeological interest.

Field Surveys

- 10.5.5 No walk-over field survey of the site has been carried out.
- 10.5.6 The Proposed Development lies entirely within commercial forestry plantation and the proposed access routes will primarily utilise existing coal and timber haul roads: although some limited new stretches of access tracks will be constructed. The only heritage assets identified by the desk-based study lie within areas occupied by commercial forestry, or within watercourse buffers, or lie at locations well away from any proposed new infrastructure.
- 10.5.7 Site visits to heritage assets in the Outer Study Area were undertaken to assess, with the aid of wireline visualisations, the predicted impact of the Proposed Development on their settings. Site visits includes any assets specifically identified by consultees as requiring assessment and those identified through analysis of the blade tip height ZTV where it is considered, on the basis of professional judgement, that the impact on their settings could be significant.

Assessment of Potential Effect Significance

- 10.5.8 The effects of the Proposed Development on heritage assets have been assessed based on their type (direct effects, impacts on setting and cumulative impacts) and nature (adverse or beneficial). The assessment takes into account the relative value/sensitivity of the heritage asset, and its setting, and the magnitude of the predicted impact.
- Adverse effects are those that detract from or reduce cultural significance or special interest of heritage assets.
 - Beneficial effects are those that preserve, enhance or better reveal the cultural significance or special interest of heritage assets.

Assigning Sensitivity to Heritage Assets

- 10.5.9 Cultural heritage assets are given weight through the designation process. Designation ensures that sites and places are recognised by law through the planning system and other regulatory processes. The level of protection and how a site or place is managed varies depending on the type of designation and its laws and policies (HES, 2019). Table 10.2 summarises the relative sensitivity of key heritage assets relevant to the Proposed Development.

Table 10.2 – Sensitivity of Heritage Asset

Sensitivity of Asset	Definition/Criteria
Very High	Assets valued at an international level including: <ul style="list-style-type: none"> ▪ World Heritage Sites
High	Assets valued at national level, including: <ul style="list-style-type: none"> ▪ Scheduled Monuments; ▪ Category A Listed Buildings; ▪ Inventory Gardens and Designed Landscapes; ▪ Inventory Historic Battlefields; and ▪ Non-designated assets that meet the relevant criteria for designation (including heritage assets in the HER with non-statutory register (NSR) codes C and V).
Medium	Assets valued at a regional level, including: <ul style="list-style-type: none"> ▪ Archaeological sites and areas that have regional value (contributing to the aims of regional research frameworks); ▪ Category B Listed Buildings; and ▪ Conservation Areas.
Low	Assets valued at a local level, including: <ul style="list-style-type: none"> ▪ Archaeological sites that have local heritage value; ▪ Category C listed buildings; and ▪ Unlisted historic buildings and townscapes with local (vernacular) characteristics.
Negligible	Assets of little or no intrinsic heritage value, including: <ul style="list-style-type: none"> ▪ Artefact find-spots (where the artefacts are no longer in situ and where their provenance is uncertain); and ▪ Poorly preserved examples of particular types of minor historic landscape features (e.g. quarries and gravel pits, dilapidated sheepfolds, etc).

Assessing Magnitude of Impact

10.5.10 The magnitude of impact (adverse or beneficial) has been assessed in the categories, high, medium, low and negligible as described in Table 10.3.

Table 10.3 – Magnitude of Impact

Magnitude of Impact	Definition/Criteria	
	Adverse	Beneficial
High	<p>Changes to the fabric or setting of a heritage asset resulting in the complete or near-complete loss of the asset's cultural significance.</p> <p>Changes that substantially detract from how a heritage asset is understood, appreciated and experienced.</p>	<p>Preservation of a heritage asset in situ where it would otherwise be completely or almost completely lost.</p> <p>Changes that appreciably enhance the cultural significance of a heritage asset and how it is understood, appreciated and experienced.</p>
Medium	<p>Changes to those elements of the fabric or setting of a heritage asset that contributes to its cultural significance such that this quality is appreciably altered.</p> <p>Changes that appreciably detract from how a heritage asset is understood, appreciated and experienced.</p>	<p>Changes to important elements of a heritage asset's fabric or setting, resulting in its cultural significance being preserved (where this would otherwise be lost) or restored.</p> <p>Changes that improve the way in which the heritage asset is understood, appreciated and experienced.</p>
Low	<p>Changes to those elements of the fabric or setting of a heritage asset that contribute to its cultural significance such that this quality is slightly altered.</p> <p>Changes that slightly detract from how a heritage asset is understood, appreciated and experienced.</p>	<p>Changes that result in elements of a heritage asset's fabric or setting detracting from its cultural significance being removed.</p> <p>Changes that result in a slight improvement in the way a heritage asset is understood, appreciated and experienced.</p>
Negligible	<p>Changes to fabric or setting of a heritage asset that leave its cultural significance unchanged and do not affect how it is understood, appreciated and experienced.</p>	

Assessment of Effects on Setting

10.5.11 Historic Environment Scotland's guidance document, 'Managing Change in the Historic Environment: Setting' (HES 2016), notes that:

"Setting can be important to the way in which historic structures or places are understood, appreciated and experienced. It can often be integral to a historic asset's cultural significance."

"Setting often extends beyond the property boundary or 'curtilage' of an individual historic asset into a broader landscape context".

10.5.12 The guidance also advises that:

"If proposed development is likely to affect the setting of a key historic asset, an objective written assessment should be prepared by the applicant to inform the decision-making process. The

conclusions should take into account the significance of the asset and its setting and attempt to quantify the extent of any impact. The methodology and level of information should be tailored to the circumstances of each case".

- 10.5.13 The guidance recommends that there are three stages in assessing the impact of a development on the setting of a historic asset or place:
- Stage 1: identify the historic assets that might be affected by the Proposed Development.
 - Stage 2: define and analyse the setting by establishing how the surroundings contribute to the ways in which the historic asset or place is understood, appreciated and experienced.
 - Stage 3: evaluate the potential impact of the proposed changes on the setting, and the extent to which any negative impacts can be mitigated.
- 10.5.14 The turbine blade tip and hub height ZTVs for the Proposed Development have been used to identify those heritage assets from which there would be theoretical visibility of one or more of the proposed wind turbines and the degree of potential visibility. Consideration was also given to designated heritage assets where there is no predicted visibility from the asset but where views of or across the asset are important factors contributing to its cultural significance. In such cases, consideration was given to whether the Proposed Development could appear in the background to those views.
- 10.5.15 World Heritage Sites, Scheduled Monuments, nationally important heritage assets (as designated in the HER), Category A and B Listed Buildings, Conservation Areas, Inventory status Gardens and Designed Landscapes and Inventory status Historic Battlefields, where present within the blade tip height ZTV are included in the assessment. These assets are included in the tabulated assessments in Appendices 10.2 and 10.3 and they are shown on Figures 10.2 and 10.3.
- 10.5.16 Category C Listed buildings, which are of local value (low sensitivity) and generally have localised settings, that lie within the blade tip height ZTV and within 5 km of the outermost turbines have been included in the assessment.
- 10.5.17 Through consultation with HES it was agreed that an assessment be carried out of the effect of the Proposed Development on the settings of New Lanark World Heritage Site (WHS), and the effect on its Outstanding Universal Value, and on Falls of Clyde Inventory Garden and Designed Landscape (GDL). Both assets lie more than 10 km from the Proposed Development. They are included in the tabulated assessments in Appendix 10.4 and they are shown on Figures 10.2 and 10.3. Visualisations (Figure 10.6 and 10.7) are provided showing the visual impact on these assets.
- 10.5.18 Where it has been determined that the setting of an asset is such that there is no potential for it to be affected by the presence of the Proposed Development (including all assets of negligible sensitivity and Category C Listed Buildings more than 5 km from the Proposed Development), the asset has not been considered further. For the remaining assets, the magnitude of impact on the setting was assessed according to the thresholds in set out in Table 10.3.

Criteria for Assessing the Significance of Effects

- 10.5.19 The sensitivity of the asset (Table 10.2) and the magnitude of the predicted impact (Table 10.3) have been used to assess the potential significance of the resultant effect. Table 10.4 summarises the criteria for assigning significance of effect. Where two outcomes are possible through application of the matrix, professional judgement supported by reasoned justification, has been employed to determine the level of significance.

Table 10.4 – Significance Criteria

Magnitude of Change	Sensitivity of Asset			
	High	Medium	Low	Negligible
Very High	Major	Major/Moderate	Moderate/Minor	Minor
High	Major	Major/Moderate	Moderate/Minor	Minor
Medium	Major/Moderate	Moderate	Minor	Minor/Negligible
Low	Moderate/Minor	Minor	Minor/Negligible	Minor/Negligible
Negligible	Minor	Minor/Negligible	Minor/Negligible	Negligible

- 10.5.20 Major and moderate effects are considered to be 'significant' in the context of Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (EIA Regulations). Minor and negligible effects are considered to be 'not significant'

Cumulative Assessment

- 10.5.21 The assessment of cumulative effects on heritage assets is based upon consideration of the effects of the Proposed Development on the settings of assets with statutory designations and non-statutory designations, in addition to the likely effects of other operational, under construction, consented and proposed (at the application stage) developments. For this assessment, operational and consented developments, including those under construction, are taken to form part of the baseline against which the effect of the Proposed Development is assessed. Other proposed developments that have validated planning applications are considered to form part of the potential cumulative baseline. Proposed developments that are at the scoping stage are excluded from the assessment as there is insufficient information on the proposed scale and size or configuration to reliably assess the potential cumulative impact, and uncertainty over whether they will be progressed to a formal application.
- 10.5.22 The assessment takes into account the relative scale (i.e. size and number of turbines) of the identified developments, their distance from the affected assets, and the potential degree of visibility of the various developments from the assets under consideration.

Requirements for Mitigation

- 10.5.23 Planning Advice Note 1/2013: Environmental Impact Assessment (PAN1/2013) describes mitigation as a hierarchy of measures: prevention, reduction, compensatory (offset) measures. Prevention and reduction measures can be achieved through design, whilst compensatory measures can offset impacts that have not been prevented or reduced through design.
- 10.5.24 The emphasis in Planning Advice Note (PAN) 2/2011: Planning and Archaeology (PAN2) is for the preservation of important remains in situ where practicable and by record where preservation is not possible. The mitigation measures presented below (paragraphs 10.8.1 to 10.8.5) therefore take into account this planning guidance and provide various options for protection or recording and ensuring that, where practical, surviving assets are preserved intact to retain the present historic elements of the landscape.
- 10.5.25 Historic Environment Policy for Scotland 2019 (HEPS) also contains policies (notably HEP2 and HEP4) that are relevant for conservation and preservation of the historic environment. HEP2 requires that decisions affecting the historic environment should ensure that its understanding and enjoyment as well as its benefits are secured for present and future generations. HEP4 requires that changes to specific assets and their context should be managed in a way that protects the historic environment. Opportunities for enhancement should be identified where appropriate. If detrimental impact on

the historic environment is unavoidable, it should be minimised. Steps should be taken to demonstrate that alternatives have been explored, and mitigation measures should be put in place.

Assessment of Residual Effect Significance

- 10.5.26 The assessment of the significance of residual effects takes into account the mitigation proposed and the effectiveness of that mitigation to avoid, reduce or offset the predicted effects. Where a predicted impact is avoided through micrositing the Proposed Development would result in no residual effect. Where an asset cannot be avoided but where the proposed mitigation would ensure that the affected asset is subject to an appropriate level of archaeological investigation and recording, resulting in its preservation by record, the significance of residual effect is accordingly reduced. Where an asset (usually one of little or no heritage importance and negligible sensitivity) is lost without any mitigation, the residual effect remains the same as the predicted effect; in all such cases the residual effect (major magnitude impact (Table 10.3) on an asset of negligible sensitivity (Table 10.2)) would be no more than minor adverse (not significant in EIA terms).

Limitations to Assessment

- 10.5.27 Due to the Covid-19 working restrictions, WoSAS Historic Environment Record (HER) was not able to provide a digital database extract. This was confirmed in an email dated 20/07/2020. The assessment relies on the results of a desk-based assessment and uses data derived from the WoSAS HER (online database) and the NRHE. It is assumed that the data was up to date at the time it was acquired.
- 10.5.28 As it was not possible to retrieve a HER database extract, it was not possible to review Non Statutory Register (NSR) assets within the Outer Study Area in order to identify any which may have been subject to potential indirect impacts to their setting. The assessment of effects on the settings of heritage assets is therefore limited to those with national statutory and non-statutory designations taken from the HES datasets.
- 10.5.29 The desk-based assessment draws on evidence taken from historic maps, cross referenced with modern aerial photography, and grid co-ordinates are approximations based on that analysis.

10.6 Baseline Conditions

Heritage Assets within the Inner Study Area (Figure 10.1; Appendix 10.1)

Prehistoric Period

- 10.6.1 It is recorded that a large stone (**4**) once stood on a small green knoll on the summit of Standingstone Hill, and it is from this that the hill derives its name. The stone had been removed before 1858 and the former location now lies within commercial forestry plantation. It is possible that the standing stone was of prehistoric date, however this is not verified. The stone is no longer in situ and it is assessed that the former standing stone is therefore of little or no archaeological value and is assessed as being of negligible sensitivity.
- 10.6.2 Prehistoric burial cairns have been found throughout the old parish of Lesmahagow including for example at Birkenhead Farm (**21**), in the Inner Study Area's north-eastern edge. Within many of these cairns were *'stone cists, containing bones, apparently crushed, or ashes, but they were seldom preserved, and the urns being of clay imperfectly baked, soon crumbled to pieces, or were thrown aside worthless'* (Greenshields 1864, 31-32).
- 10.6.3 Four further cists (**26**) were found at Catcleugh on the farm of South Cumberhead to the south-east of the Proposed Development Site (Young, 1897). As the locations of former Bronze Age burials, but where there may be other burial remains in the vicinity, these assets are assessed as having heritage value at the local level and to be of low sensitivity.
- 10.6.4 An Early Bronze Age flat axe (**28**) was found at Dunside on the northern edge of the Inner Study Area, sometime before 1896. As the recorded location of an artefact that has been removed, the

find-spot is assessed as having little or no archaeological value and is assessed as being of negligible sensitivity.

Post-medieval/Industrial

- 10.6.5 Three former lead mines (**5**, **12** and **13**), along the north side of the River Nethan, are marked on the 1st edition Ordnance Survey map (1860). The Cumberhead hills were reported to contain rich veins of lead, and mining attempts were made in 1720 and 1758, whilst deposits were also known at the head of the Nethan water and along the Pochmuir burn, but mining attempts were met with '*no encouraging success*' (Greenshields 1864, 10, 232). As relict remains of small-scale industrial activity that could contain archaeological evidence relating to lead mining in the 18th or early 19th century, they are assessed as having heritage value at the local level and to be of low sensitivity.

Farmsteads/sheepfolds/enclosures/cairns

- 10.6.6 In the eastern half of the Proposed Development site, a former farmstead, Eaglinside (**1**), is recorded upon the 1st edition Ordnance Survey map (1864), located alongside Eaglin Burn. The farmstead is subsequently recorded further to the south on the later Ordnance Survey map (1899) (**2**) at the location of a circular sheep ree (**3**) which is recorded in 1864. The original Eaglinside is not visible on aerial photographs, though there are possible former derelict fields in this area; and the relocated farmstead, which also appears on modern mapping, appears to be derelict. The remains of this farmstead, likely to contain archaeological evidence relating to its occupation, are assessed as having heritage value at the local level and to be of low sensitivity.
- 10.6.7 Four sheepfolds (**3**, **6**, **8** and **11**) are recorded within the Inner Study Area. As minor relict features of the historic farming landscape, worthy of retention where possible, they are assessed as having some heritage value at the local level and to be of low sensitivity.
- 10.6.8 Two small shepherd's marker cairns (**7** and **10**) are marked on the modern Ordnance Survey map. As minor relict features of the historic farming landscape, worthy of retention where possible, they are assessed as having some heritage value at the local level and to be of low sensitivity.
- 10.6.9 Within the 1 km buffer area of the Inner Study Area are several further farmsteads. Logan Farm (**18**) is located to the north-west of the Proposed Development site depicted on the Ordnance Survey 1st edition map (1864) and on modern mapping, to the south of which is a shieling located adjacent to Logan Water (**14**). To the south-east of the Proposed Development site, Blackhill (**19**), South Cumberhead (South Cumer) (**20**), Mid Cumer (**24**), Todlaw (**27**) and Bankhead (**25**) are first recorded on Pont's manuscript map of 1596 and are also shown on Roy's 'Military Survey of Scotland' map (1747-55); Cumberhead (**20**) which is depicted on the Ordnance Survey 1st edition map (1864) and on modern mapping. These farmsteads identify a pattern of settlement in the area, primarily located at lower lying levels along or close to watercourses and avoiding the upland areas that would have primarily been used for rough grazing and which are now utilised for commercial forestry. As relict features of the historic farming landscape they are assessed as having some heritage value at the local level and to be of low sensitivity.
- 10.6.10 On the Inner Study Area's western edge, the farmstead at Priesthill Heights (**16**) belonged to the Covenanter John Brown, who was executed there in May 1685. The farmstead was demolished in the 19th century, surviving as a mound, until excavated in the 20th century. Nearby to the former farmstead is the gravestone of John Brown which now sits at the base of a modern monument (**15**) which is also a Category C Listed Building (**LB14395**). As a former farmstead with historical links to the Covenanted times and named individual, the farmstead is assessed as having some heritage value at the local level and to be of low sensitivity.
- 10.6.11 An enclosure (**22**) is located in a clearing within commercial forestry to the north-west of Todlaw Farm. This is likely to be a field or stock enclosure associated with occupation of Todlaw Farm. Two possible shieling huts (**14** and **17**) are likely related to summer pasturing of stock. As minor relict features of the historic farming landscape they are assessed as having some heritage value at the local level and to be of low sensitivity.

Miscellaneous

- 10.6.12 The site of a well (9) is recorded on the Ordnance Survey 1st edition map (1860), but the location is now within a forestry plantation. It is unlikely to survive undisturbed but is assessed as having little or no archaeological value and is assessed as being of negligible sensitivity.
- 10.6.13 The remains of a reservoir or water sluice (23) for a mill wheel are recorded on the Ordnance Survey 2nd edition map (1896). As a minor feature of the historic landscape, related to water management, the reservoir and sluice, which may hold archaeological information about its construction and use, is assessed as having some heritage value at the local level and to be of low sensitivity.
- 10.6.14 A mound composed of earth and stones (28), located at Todlaw on the Inner Study Area's eastern edge, and measuring measures 3.8 m by 4.7 m and 0.3 m high is recorded by the HER, although the origin of the mound is thought to be probably geological in origin. As a feature of geological origin, with no known archaeological purpose, the mound is assessed as having little or no archaeological value and is assessed as being of negligible sensitivity.

Historic Landscape Character

- 10.6.15 The Proposed Development is located within a commercial forestry plantation (the north-west of Cumberhead Forest), to the east of Cumberhead and to the north of the River Nethan. HLAMap records the forest as largely surrounded by rough grazing pasture to the north, south and west.
- 10.6.16 Roy's 'Military Survey of Scotland' map (1747-55) depicts an upland landscape, showing the site as covering a range of hill, including 'Knit Berry' ('Nutberry Hill') in the west above the Nethan River and 'Nethan Head' and 'Todly Hill' ('Tod Law') in the east. Farming settlements are restricted to those along the river valleys. The Ordnance Survey 1st edition maps (1860) likewise show an unenclosed moorland and rough grazing pasture landscape with only occasional evidence for pastoral land-use and small-scale mining.

Archaeological Potential

- 10.6.17 The desk-based assessment has shown that the heritage assets that have been identified within the commercial forestry are almost exclusively of post-medieval date and relate to pastoral farming practices and small-scale industrial activity. A possible standing stone, potentially of prehistoric date, was allegedly formerly sited on Standingstone Hill but was removed in the mid-19th century. In the wider vicinity there is evidence of prehistoric activity (e.g. a cairn located at Birkenhead Farm (21), cists located at South Cumberhead farm (23), and a Bronze Age flat axe (28) found at Dunside farm).
- 10.6.18 Historic maps show the site as having been open, unenclosed moorland and rough grazing pasture prior to its development as commercial forestry in the latter part of the 20th century. It is probable that, with the exception of the surviving remains identified by this study, this commercial forestry land-use has adversely affected any remains of earlier land-use that might have been present.
- 10.6.19 Taking into account the current land-use and the limited evidence for any occupation or activity prior to the 19th century, it is assessed that there is a low probability for hitherto undiscovered archaeological remains to be present within the site. Although it cannot be ruled out that previously unrecorded archaeological remains will be present within the site, it is probable that any that do survive are most likely to be of post-medieval date and associated with either farming activities or localised small scale exploratory lead mining.

Designated Heritage Assets within the Outer Study Area (Figure 10.2; Appendices 10.2 – 10.4)

- 10.6.20 There are six Scheduled Monuments within 10 km of the Proposed Development (outermost turbine layout); only one of which (Glenbuck Ironworks, 470 m NW of Glenbuck Home Farm (SM2931)) is within 5 km of the Proposed Development. One other Scheduled Monument (Black Hill fort and cairn (SM 2882) lies just outside the Outer Study Area but has a prominent topographic setting with wide ranging views, and is included in the assessment.

- 10.6.21 There is one Category A Listed Buildings within 10 km of the Proposed Development (outermost turbine layout): St Bride's Chapel, Douglas (LB1490). In addition, there are 18 listed buildings of Categories B and C within 10 km but only one Category B Listed Building (Auchlochan Bridge (LB7688)) and one Category C Listed Building (Covenanters' Monument, Priesthill (LB14395)) are within 5 km of the Proposed Development.
- 10.6.22 Although outside the 10 km Outer Study Area, as agreed with the consultees, the New Lanark World Heritage Site and the Falls of Clyde Inventory Garden and Designed Landscape (GDL00358) have been included in the assessment at the specific request of HES.

10.7 Potential Effects

Construction

- 10.7.1 Any ground breaking activities associated with the construction of the Proposed Development, (such as those required for turbine bases and crane hardstandings, access tracks, cable routes, compounds, borrow pits, etc.) have the potential to disturb or destroy features of cultural heritage interest within the site. Other construction activities, such as vehicle movements, materials storage, soil and overburden storage and landscaping also have the potential to cause permanent and irreversible effects on the cultural heritage of the site.
- 10.7.2 The Proposed Development layout has been designed to avoid impacts on heritage assets as far as possible (Figure 10.1) and none of the heritage assets identified by the desk-based assessment would be directly affected by construction works associated with the Proposed Development.
- 10.7.3 The exact location of the possible former standing stone (4), recorded as having been sited on Standingstone Hill, is not known. However, as no groundworks are proposed near to the summit of the hill (the recorded location of the stone), it is not anticipated that there will be any direct impact on any potential buried remains at this location.
- 10.7.4 It has been assessed that there is a low probability for hitherto undiscovered archaeological remains to be present within the site, most likely to be of post-medieval date and associated with either farming activities or localised small scale exploratory lead mining.
- 10.7.5 Taking into account the assessed low sensitivity of many of the known archaeological remains on the site, and assuming potential impacts of high magnitude arising from construction works, it is assessed that, without mitigation, any adverse direct effects on buried archaeological remains could be of **moderate** significance (significant in the context of the EIA regulations). Mitigation measures at the construction stage are outlined in Section 10.8 below.
- 10.7.6 A micro-siting allowance of 100 m in all directions is being sought in respect of each turbine in order to address any potential difficulties which may arise in the event that pre-construction environmental/geotechnical surveys identify potential constraints. Although this is unlikely to affect the cultural heritage sites identified within the site, consideration will be given to the presence of archaeological remains within any decision regarding micro-siting.

Operation

Direct Effects

- 10.7.7 There are no identified assets likely to receive a direct effect arising during operation of the Proposed Development. This is due to the approach adopted in formulating the design and layout of the Proposed Development, i.e. avoidance, and because any maintenance works on site would be managed to recognise the presence of heritage assets and to avoid them.
- 10.7.8 Any previously unrecorded archaeological remains which may be present within the site will be dealt with during the construction phase through mitigation, as outlined within section 10.8.

Setting Effects

- 10.7.9 The Proposed Development could result in adverse effects on the setting of cultural heritage assets within both the Inner Study Area and Outer Study Area. Potential effects on the settings of heritage assets would however diminish with increasing distance from the site. It is considered that beyond 10 km, the Proposed Development would not appreciably alter features of the setting of the heritage assets that contribute to cultural significance, nor would it appreciably alter how a heritage asset is understood, appreciated and experienced.
- 10.7.10 Technical Appendix 10.2: Assets within Outer Study Area and within 5 km of the Proposed Development, and Technical Appendix 10.3: Assets within Outer Study Area and between 5 km and 10 km of the Proposed Development, contain tabulated assessments of the predicted effects on the settings of designated heritage assets from which there is some degree of predicted theoretical visibility of the Proposed Development based on analysis of the hub and blade tip height ZTVs.
- 10.7.11 Two assets (New Lanark WHS and Falls of Clyde GDL) that lie more than 10 km from the Proposed Development have been identified by HES as requiring consideration for potential effects on their settings. One other Scheduled Monument (Black Hill, fort and cairn (SM 2882)) also lies just outside the Outer Study Area but has a setting where long-distance views are an important element of its setting. Technical Appendix 10.4: Heritage Assets outside the Outer Study Area, contains a tabulated assessment of the predicted effects on the settings of these designated heritage assets and they are addressed in the text below in paragraphs 10.7.31 to 10.7.36.
- 10.7.12 The assessment of operational effects on the settings of heritage assets has been carried out with reference to the layout of the Proposed Development and the locations of the cultural heritage assets shown on Figure 10.2. The criteria detailed in Tables 10.2 (Sensitivity of Heritage Assets), 10.3 (Magnitude of Impact) and 10.4 (Significance of Effect) have been used to assess the nature and magnitude of the effects set out in the Technical Appendices.
- 10.7.13 The following discussion addresses those assets where potentially significant adverse effects have been identified through the tabulated assessment and those assets identified by HES as requiring detailed consideration, even where the significance of the predicted effect is assessed as being not significant in EIA terms. The assessments are supported with cultural heritage visualisations (Figures 10.4 – 10.7) and by reference to one LVIA photomontage (Figure 6.53: LVIA VP 15).

Table 10.5 – Cultural Heritage Visualisation Viewpoints

Figure Ref.	Figure Title - Asset Name (& Ref No)
Figure 10.4	Dungavel Hill, Cairn (SM2848)
Figure 10.5	Black Hill, fort & cairn (SM2882)
Figure 10.6	New Lanark WHS (from Braxfield Road)
Figure 10.7	Corra Linn, Bonnington Pavilion (LB13065)
Figure 6.53 (LVIA VP 15)	Cairn Table, two cairns (SM4631)

Inner Study Area

- 10.7.14 There are no heritage assets within the Inner Study Area which have a setting sensitive to change.

Outer Study Area

- 10.7.15 Within the Outer Study Area there are two scheduled Bronze Age burial cairns that occupy prominent hilltop positions from where there are wide ranging and commanding views, with probable intervisibility between at least two of the hilltop locations. Visualisations are provided from these, which show the visibility of the Proposed Development in views from the cairns:
- Dungavel Hill, Cairn (SM2848), closest to the Proposed Development, lies 6.4 km to the west and is represented by the wireline visualisation in Figure 10.4. The wireline indicates that all 21 of the turbines would theoretically be visible at tip height (14 visible at hub height).

- Cairn Table, two cairns (SM4631), lies 8.2 km to the south of the Proposed Development and is represented by the LVIA VP 15. The viewpoint indicates that all 21 of the turbines would theoretically be visible at tip height (19 visible at hub height).
- 10.7.16 Black Hill, fort & cairn (SM2882), lies 10.4 km to the north-east of the Proposed Development, on the edge of the Outer Study Area, in a topographic location where there are wide ranging views. It is represented by the wireline visualisation in Figure 10.5 which indicates that all 21 of the turbines would theoretically be visible at hub height.
- 10.7.17 There is intervisibility between Dungavel Hill Cairn (SM2848) and Cairn Table cairns (SM4631) and with the cairn on Black Hill (SM2882). The Proposed Development would not lie in direct line of sight between intervisible cairns, and as such, the key aspect of their settings would be unaffected. The cairns would also retain their individual prominence in the surrounding landscape and views of the cairns from the wider surroundings would not be compromised by the Proposed Development.

Cairn Table, two cairns (SM4631)

- 10.7.18 The remains of two prehistoric cairns stand just north-east of the summit of Cairn Table; the eastern cairn is well-preserved but the western cairn is much denuded having been robbed to provide building material for a modern memorial cairn that stands around 22 m to the south-west of the cairns on the summit of the hill. An Ordnance Survey triangulation pillar has been erected at the centre of the western cairn. The cairns have long, distant panoramic views out in all directions taking in the surrounding hills. This includes intervisibility with the probably contemporary cairn on Dungavel Hill.
- 10.7.19 Figure 6.53 (LVIA VP 15) provides a view from the summit of Cairn Table oriented towards the Proposed Development. From the wireline provided (Figure 6.53, sheet B) the Proposed Development would be seen from Cairn Table as an extension of the operational developments of the Hagshaw Cluster. Figure 6.53, sheet C shows that the Proposed Development would be partly screened by topography and 8.4 km from the cairns. The Proposed Development would occupy a narrow arc of view in the view to the north north-east and views in other directions over the surrounding landscape, which already includes other operational wind farms, would be unaffected by the Proposed Development.
- 10.7.20 The Proposed Development would represent a slight change to the baseline setting within the wider surroundings (seen as part of the Hagshaw Cluster of wind farms) and it would not lie in direct line of sight between intervisible cairns or prominent hilltops (e.g. Dungavel Hill). As such, the key aspect of the setting of two cairns on the summit of Cairn Table would be unaffected. The cairns would remain the most prominent features on the summit of Cairn Table and the Proposed Development will not affect the ability of any visitor to understand and appreciate the cairns and their setting or the commanding views across the surrounding landscape.
- 10.7.21 The impact of the Proposed Development on the setting of Cairn Table, two cairns, is assessed as being of low magnitude. On an asset of high sensitivity, the resultant effect is assessed as being of **minor** significance (not significant in EIA terms).

Dungavel Hill, Cairn (SM2848)

- 10.7.22 The well-preserved remains of this burial cairn lie in a prominent location at over 450 m AOD, within upland moorland on the summit of Dungavel Hill, within an open area surrounded on all sides by commercial forestry plantation. The cairn lies just to the west of the hill summit, with an evident orientation towards the lower lying landscape of the Glengavel Water to the west.
- 10.7.23 Although commercial forestry serves to partly screen clear views of the cairn from the surrounding local landscape, there are still some open views from the location of the cairn to the surrounding landscape, including intervisibility with Cairn Table (SM4631), which lies to the south south-east.
- 10.7.24 Figure 10.4 provides a 360-degree wireline visualisation from the Scheduled Monument with Figure 10.4A oriented towards the Proposed Development. Dungavel Wind Farm lies close by, to the north-east of the cairn and the Proposed Development would be seen, partly screened by intervening topography. All 21 of the turbines would, in the absence of screening provided by the current

- surrounding forestry, be theoretically visible at tip height (14 theoretically visible at hub height) with Dungavel Wind Farm in the foreground.
- 10.7.25 The Proposed Development would represent a slight change to the baseline setting within the wider surroundings (as part of the Hagshaw Cluster of wind farms at distance) and it would not lie in direct line of sight between intervisible cairns or prominent hilltops. As such, a key aspect of its setting would be unaffected. The cairn would also retain its individual prominence in the surrounding landscape, including its views across the Glengavel Water to its west, and views of the cairn from the wider surroundings would not be compromised by the Proposed Development.
- 10.7.26 The impact of the Proposed Development on the setting of Dungavel Hill, Cairn, is assessed as being of low magnitude. On an asset of high sensitivity, the resultant effect is assessed as being of **minor** significance (not significant in EIA terms).
- Black Hill, fort & cairn (SM2882)
- 10.7.27 Black Hill, fort and cairn occupies a prominent hilltop setting in a rural location with wide ranging and commanding views across the lower lying landscape between the River Nethan and the River Clyde.
- 10.7.28 Figure 10.5 provides a 360-degree wireline visualisation from the Scheduled Monument with Figure 10.5A oriented towards the Proposed Development. The wireline indicates that all 21 of the turbines would theoretically be visible at hub height or more alongside and as an extension to the operational wind farms of the Hagshaw Cluster.
- 10.7.29 The Proposed Development would represent a slight change to the baseline setting within the wider surroundings (as part of the Hagshaw Cluster of wind farms). The Proposed Development would not interrupt the commanding views from the fort and cairn across the River Nethan and the River Clyde valleys or affect the monument's prominence in the surrounding landscape.
- 10.7.30 The impact of the Proposed Development on the setting on Black Hill, fort and cairn, is assessed as being of low magnitude. On an asset of high sensitivity, the resultant effect is assessed as being of **minor** significance (not significant in EIA terms).
- New Lanark World Heritage Site: including Falls of Clyde Garden and Designed Landscape (GDL00358) and Corra Linn, Bonnington Pavilion Category A Listed Building (LB13065)
- 10.7.31 New Lanark WHS lies with the Falls of Clyde Garden and Designed Landscape, 11.25 km to the north-east of the Proposed Development. The WHS comprises the purpose-built 18th century mill village which includes industrial mill buildings and associated workers housing, all set within a narrow wooded and steep sided valley alongside the River Clyde just downstream of the Falls of Clyde. The primary setting of the New Lanark village relates to its relationship with the picturesque landscape setting in a steep-sided, heavily wooded valley around the Falls of Clyde. Views from the village to the wider landscape outside the valley are constrained by the wooded valley sides, although wide ranging views are afforded from some of the more elevated parts of the WHS and Falls of Clyde GDL.
- 10.7.32 The blade tip height ZTV indicates that, in the absence of any screening provided by intervening woodland, the Proposed Development would be theoretically visible from very limited parts of the area covered by the WHS designation; mostly from the elevated areas around the periphery of the WHS boundary; at its south-west and eastern edges. The Proposed Development would not be visible from New Lanark village itself. A photowire (Figure 10.6) is provided showing the view across the valley within which the village and industrial buildings are located from Braxfield Road in Lanark, on the eastern edge of the Falls of Clyde GDL. A wireline (Figure 10.7) is also provided demonstrating the absence of visibility of the Proposed Development from the Corra Linn, Bonnington Pavilion (LB13065) Category A Listed Building which lies within the WHS and GDL and in an elevated position overlooking the Falls of Clyde
- 10.7.33 Figure 10.6 shows that, from Braxfield Road, in the absence of any screening provided by intervening woodland, there would be some limited theoretical visibility of the Proposed Development (14 tips, four hubs). The accompanying wireline also shows that, from this location, other operational wind farms forming part of the Hagshaw Cluster would be equally or more visible. In practice, a

combination of the intervening topography and the woodland character of the intervening landscape between the WHS and the Proposed Development would entirely screen any visibility of the proposed turbines. The wireline in Figure 10.7 demonstrates that, from the Corra Linn, Bonnington Pavilion (LB13065) Category A Listed Building there would be no visibility of the Proposed Development, which would be entirely screened by intervening topography.

- 10.7.34 Taking the above factors into account, it is assessed that the presence of the Proposed Development in the wider surrounding landscape of the New Lanark WHS would have a negligible impact on its setting. For an asset of very high sensitivity, the resultant effect is assessed as being of **minor** significance (not significant in EIA terms).
- 10.7.35 The presence of the Proposed Development in the wider surrounding landscape of the Falls of Clyde Garden and Designed Landscape would have a negligible impact on its setting. For an asset of high sensitivity, the resultant effect is assessed as being of **minor** significance (not significant in EIA terms).
- 10.7.36 There would be no visibility of the Proposed Development from the Corra Linn, Bonnington Pavilion (LB13065) and, as a result, there would be no adverse effect on its setting.

Decommissioning

- 10.7.37 There are no known, previously recorded and identified assets likely to receive a direct effect arising from decommissioning of the Proposed Development. Therefore, the effects from decommissioning the Proposed Development would be of **negligible** significance (not significant in EIA terms).

10.8 Mitigation

- 10.8.1 Whilst likely to be limited in this case, the scope of any required archaeological works: site walkover surveys; post-felling surveys; watching brief(s), etc would be developed in consultation with (and subject to the agreement of) WoSAS acting on behalf of SLC and set out in one or more Written Scheme(s) of Investigation (WSI) provided for the approval of SLC post consent and in advance of construction works commencing. This can be secured by an appropriately worded condition.
- 10.8.2 All required mitigation works will be conducted by a professional archaeological organisation, in accordance with the WSI.

Pre-construction Phase

- 10.8.3 It is proposed that walkover field surveys be undertaken of all construction locations following conditional planning approval. Potential impacts to archaeological remains which may be identified can be mitigated through a scheme of mitigation, as outlined below, or will be avoided by micrositing where conflicts are identified. Where it is possible to microsite to avoid any remains identified, these will be marked out for the duration of the construction phase using high visibility markers placed a minimum of 5 m from the outermost edge of the feature identified.

Construction Phase

- 10.8.4 Taking account of the avoidance through the design, the identified cultural heritage baseline and the current land-use as commercial forestry, there are no particularly sensitive areas where watching briefs would be expected to encounter any archaeological remains.

Post-excavation assessment and reporting

- 10.8.5 If significant discoveries are made during any watching briefs carried out, and it is not possible to preserve the discovered remains in situ, provision would be made for the excavation where necessary, of any archaeological deposits encountered. The provision would include the consequent production of written reports, on the findings, with post-excavation analysis and publication of the results of the works, where appropriate.

Operation Phase

- 10.8.6 No mitigation is required in relation to any heritage assets during the operational phase of the Proposed Development.

Decommissioning Phase

- 10.8.7 No mitigation is required in relation to decommissioning of the Proposed Development.

10.9 Residual Effects

Construction Effects

- 10.9.1 For heritage assets within the Proposed Development site, completion of the programme of archaeological mitigation works set out above (paragraphs 10.8.1 to 10.8.5) would avoid, reduce or offset the loss of any archaeological remains that may occur as a result of the construction of the Proposed Development. Taking the proposed mitigation into account, any residual effect arising from construction of the Proposed Development in relation to direct effects on cultural heritage assets within the Proposed Development site would be of no more than **minor** or **negligible** significance (not significant in EIA terms).

Operational Effects

- 10.9.2 During its operational lifetime, the residual effects of the Proposed Development on the settings of heritage assets in the wider study area would be the same as the predicted effects. Impacts, affecting the settings of heritage assets in the surrounding landscape, would give rise to effects that are either of **minor** or **negligible** significance (not significant in EIA terms) and would in any case be fully reversible upon decommissioning.

Decommissioning Effects

- 10.9.3 There would be no residual direct effects arising as a consequence of decommissioning the Proposed Development.
- 10.9.4 Decommissioning the Proposed Development would remove the operational effects of heritage assets (impacts on their setting), resulting in no residual effects.

10.10 Cumulative Assessment

- 10.10.1 Figure 10.3 shows the Proposed Development, along with the locations of other operational and consented or under construction wind farms, and those that are currently proposed (in planning), together with the designated heritage assets within 10 km of the Proposed Development. Those at the scoping stage are excluded because there is insufficient information of the size and scale of the development proposed and uncertainty over whether they will be progressed to a formal application.
- 10.10.2 The Proposed Development site adjoins the northern edge of an established cluster of wind farms around Hagshaw Hill (Known as the 'Hagshaw Cluster'), and it is in combination with this group that cumulative impacts upon cultural heritage assets are most likely to arise. The cumulative assessment has therefore focussed on the following developments:
- Galawhistle (operational – 22 turbines);
 - Hagshaw Hill (operational – 26 turbines);
 - Hagshaw Hill Extension (operational – 20 turbines);
 - Hazelside Farm (operational – 1 turbine, consented – 1 turbine);
 - Nutberry (operational – 6 turbines);

- Hagshaw Repowering (consented 14 turbines);
 - Cumberhead Revised (consented – 14 turbines);
 - Dalquhandy Revised (consented – 15 turbines);
 - Douglas West (under construction – 13 turbines);
 - Douglas West Extension (at application – 13 turbines); and
 - Hare Craig (at application – 8 turbines).
- 10.10.3 Collectively these cumulative schemes constitute a cluster of over 130 turbines, mostly on former opencast coal mining sites or within commercial forestry plantations. The Proposed Development would represent an addition to that cluster, occupying an area of commercial forestry to the north west of that group within Cumberhead Forest.
- 10.10.4 The wireline visualisations (Figures 10.4-10.7) include the cumulative schemes where they are predicted to be visible and have been used to inform the assessment of the cumulative effects on cultural heritage assets in the wider landscape. The LVIA VP 15 (Figure 6.53) referenced also shows the cumulative schemes where these are visible from the viewpoint.
- 10.10.5 Those cumulative developments that are operational or which are consented or under construction are considered to be part of the baseline against which the impact on the settings of heritage assets, described above (paragraphs 10.7.15 to 10.7.36) has been assessed. The cumulative assessment below therefore addresses the effect of adding the Proposed Development to a baseline that includes other, in planning developments in the context of that baseline of operational and consented developments.
- 10.10.6 For most of the heritage assets within the Outer Study Area, the addition of the Proposed Development to a baseline including the operational and consented schemes in combination with other in planning proposals within the Hagshaw Cluster, would result in a cumulative effect assessed as being of negligible magnitude. The Proposed Development would sit at the north western edge of the cluster and would extend the size and extent of this group whilst still remaining connected to, and viewed as part of, the cluster. There would be potentially greater visibility of the group as a whole from assets to the north, for example around Strathaven, although from these locations the Proposed Development would be seen beyond and in the same context as operational wind farms at Auchrobert and Kype Muir. It is considered therefore that the Proposed Development would not add appreciably to the visual impact from the operational and consented developments when seen from the north.
- 10.10.7 For the Scheduled Monuments described above Cairn Table, two cairns (SM4631); Dungavel Hill, Cairn (SM2848); Black Hill, fort & cairn (SM2882), the extensive views and intervisibility between cairns, would remain unaffected by the introduction of the Proposed Development, and the cumulative effect of the addition of the Proposed Development to a baseline including the operational, consented and in planning schemes within and around the northern edge of the Hagshaw Cluster would be of negligible magnitude and **minor** significance (not significant in EIA terms).
- 10.10.8 For the New Lanark World Heritage Site and Falls of Clyde Garden and Designed Landscape (GDL00358), although occasionally visible from within the outer boundaries of these assets, the cumulative effect of the addition of the Proposed Development to a baseline including the operational consented and in planning schemes within and around the northern edge of the Hagshaw Cluster would be of negligible magnitude and of **minor** significance (not significant in EIA terms).

10.11 Summary

- 10.11.1 A desk-based assessment has identified 14 cultural heritage assets within the site. These are almost exclusively of post-medieval date and relate to pastoral farming practices and small-scale industrial activity, with the exception of a possible standing stone, potentially of prehistoric date, was allegedly formerly sited on Standingstone Hill but was removed in the mid-19th century. Within 1 km of the site there is some limited evidence of prehistoric activity (Bronze Age burials and artefact find-spots), as well as further evidence of the post-medieval farming settlements, mostly located at lower lying levels along or close to watercourses and avoiding the upland areas.
- 10.11.2 All of the cultural heritage assets within the site have all been avoided by the design of the wind farm layout and mitigation has been proposed that would address any potential direct effects upon previously unrecorded cultural heritage sites. Taking account of the current land-use and surrounding historic landscape character, the potential for further archaeological discoveries within the site is assessed as being low.
- 10.11.3 The assessment has considered the effect of the Proposed Development on the settings of designated heritage assets in the wider landscape following the approach approved by HES.
- 10.11.4 Three Scheduled Monuments have been identified as having settings sensitive to change: Dungavel Hill, Cairn (SM2848); Black Hill, fort & cairn (SM2882); and Cairn Table, two cairns (SM4631). The impacts on the settings of these Scheduled Monuments has been assessed as being of low magnitude, resulting in effects assessed as being of **minor** significance.
- 10.11.5 At the request of HES, the assessment also considered the effect of the Proposed Development on the setting of the New Lanark WHS, Falls of Clyde GDL and Corra Linn, Bonnington Pavilion (LB13065) Category A Listed Building. It was concluded that there would be at most, a negligible impact on the setting of the WHS and GDL resulting in an effect assessed as being of **minor** significance. Whilst there would be no visibility of the Proposed Development from the Corra Linn, Bonnington Pavilion (LB13065) and, as a result, there would be no adverse effect on its setting.
- 10.11.6 The effects of the Proposed Development on the settings of designated heritage assets has been assessed as being **not significant** in EIA terms.
- 10.11.7 The effects on the setting of other designated heritage assets in the Outer Study Area, from which there is predicted theoretical visibility based on analysis of the blade tip height ZTV, are assessed as being of **minor** or **negligible** significance (not significant in EIA terms).
- 10.11.8 For all of the designated heritage assets considered in the assessment, the addition of the Proposed Development to a baseline including the operational and consented schemes in combination with other in planning proposals within the Hagshaw Cluster, would result in a cumulative effect assessed as being of negligible magnitude resulting in an effect of **minor** significance (not significant in EIA terms).

Table 10.6 – Summary Table

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
<i>During Construction</i>					
Potential direct impacts on unrecorded archaeological remains within the Proposed Development footprint.	Moderate	Adverse	Implementation of mitigation proposals where required through planning condition.	Minor	Adverse
Potential direct impacts on any buried remains surviving within the Proposed Development footprint.	Negligible	Adverse	Implementation of mitigation proposals where required through planning condition.	Negligible	Adverse
<i>During Operation</i>					
Effect on the settings of Dungavel Hill, Cairn (SM2848), Cairn Table, two cairns (SM4631) and Black Hill, fort & cairn (SM2882).	Minor	Adverse	No mitigation necessary.	Minor	Adverse
Effect on the setting of New Lanark World Heritage Site.	Minor	Adverse	No mitigation necessary.	Minor	Adverse
Effect on the setting of Falls of Clyde Garden and Designed Landscape (GDL00358).	Minor	Adverse	No mitigation necessary.	Minor	Adverse
Effects on settings of other designated heritage assets in the wider landscape during operation.	Minor / Negligible	Adverse	No mitigation necessary.	Minor / Negligible	Adverse
<i>Cumulative Effects</i>					
Cumulative effect on the settings of Dungavel Hill, Cairn (SM2848), Cairn	Minor	Adverse	No mitigation necessary.	Minor	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Table, two cairns (SM4631) and Black Hill, fort & cairn (SM2882)					
Cumulative effect on the setting of New Lanark World Heritage Site.	Minor	Adverse	No mitigation necessary.	Minor	Adverse
Cumulative effect on the setting of Falls of Clyde Garden and Designed Landscape (GDL00358).	Minor	Adverse	No mitigation necessary.	Minor	Adverse
Cumulative effect on the setting of other designated heritage assets in the wider landscape.	Minor	Adverse	No mitigation necessary.	Negligible	Adverse

10.12 References

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