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Commissioned by	Land Use Consultants Ltd
Date issued	October 2010
Version	
OASIS Reference	cfaarcha1-74101
Planning Application No.	
Grid Ref	NX 665 849

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

**Loch Hill Wind Farm,
near St Johns Town of Dalry,
Dumfries and Galloway**

Cultural Heritage Assessment

12. CULTURAL HERITAGE

INTRODUCTION

12.1. This chapter considers the potential impacts of the proposed Loch Hill windfarm on cultural heritage interests. It details the results of a desk-based assessment and reconnaissance field survey carried out for the windfarm area. The cultural heritage assessment was undertaken by CFA Archaeology Ltd, informed by information provided by Historic Scotland and the Dumfries and Galloway Council Archaeologist.

Study Area Description

12.2. The cultural heritage study area consists of two parts.

12.3. The proposed windfarm area boundary covers approximately 3sq kilometres of land north of Duchrae Farm within which it is proposed to erect turbines. The area consists principally of upland rough pasture with occasional improved pasture fields surrounding the farm at Duchrae. The windfarm area is bounded by extensive woodland to the north and open upland pasture and moorland to the south.

12.4. **Figure 12.1** depicts the proposed windfarm layout, and the locations of archaeological sites and monuments identified by this cultural heritage study. A gazetteer of those sites is provided as **Appendix 12.1**.

12.5. A wider study area, extending to 15km from the development area boundary provided the study area for the identification of sites with statutory protection (and those with national or regional non-statutory designations) whose settings may be affected by the proposed development.

12.6. **Figure 12.2** shows the proposed windfarm in its wider landscape setting together with the zone of theoretical visibility (ZTV) and the locations of key cultural heritage receptors within 15km of the proposed development that have a theoretical view of the turbines. **Appendix 12.2** contains a list of those key receptors and provides a summary assessment of the predicted indirect setting impacts, on a site by site basis.

12.7. **Figure 12.11** shows the proposed windfarm in its wider landscape setting together with the location of other operational / consented or applied for windfarms, along with cumulative zones of visibility and the locations of key cultural heritage receptors within 15km of the proposed turbine envelope. To ensure that all of the group of the sites to the north of Loch Hill (Windy Standard Phases 1 and 2; Afton; Pencloe; Whiteside; Ulzieside; Sanquhar Community Windfarm; Harehill Phase 1 and 2) are included within the assessment.

Impacts Assessed in Full

12.8. The following impacts have been considered:

- Direct impacts on all cultural heritage interests, either designated or non-designated, within the development area.
- Indirect impacts on designated cultural heritage sites including Scheduled Monuments; Listed Buildings; Conservation Areas; Gardens and Designed Landscapes (GDL); Non-Inventory Gardens and Designed Landscapes (NIDL); Non-Statutory Registered Sites (NSR) and non-designated Archaeological Sensitive Areas (ASA) within 15 km of the

proposed turbine envelope that have been identified from the ZTV as having theoretical intervisibility with the turbines.

- Cumulative impacts on cultural heritage resources of the proposed Loch Hill windfarm in combination with other existing or proposed developments.

Impacts Scoped Out

12.9. On the basis of the desk based and survey work undertaken, the professional judgement of the EIA team, experience from other relevant projects and policy guidance or standards, the following topic areas have been ‘scoped out’, as proposed in the Scoping Report:

- Disturbance from vibration, dewatering or changes in hydrology resulting in indirect impacts on cultural heritage sites and features.

ASSESSMENT METHODOLOGY

Assessment Structure

12.10. The assessment is structured around the consideration of potential impacts on the following:

- *Non-designated and designated cultural heritage sites within the development area – direct impacts on upstanding structures, and potential impacts on as yet undetected buried remains.*
- *Designated cultural heritage sites within 15km of the windfarm boundary – impacts on the setting of cultural heritage receptors in the surrounding landscape.*

12.11. The specific objectives of the cultural heritage study were to identify the cultural heritage baseline within and in the vicinity of the proposed development area; assess the proposed development area in terms of its archaeological and historic environment potential; consider the potential impacts of the construction and operation of the proposed development on the baseline cultural heritage resource and propose measures, where appropriate, to mitigate any predicted significant adverse impacts.

Data Sources and Guidance

12.12. This assessment was conducted in accordance with the Institute for Archaeologist Code of Conduct (IfA 2010)ⁱ, and Standard and Guidance for Archaeological Desk-based Assessment (IfA 2008)ⁱⁱ.

12.13. Up-to-date information was obtained from appropriate sources on the locations of cultural heritage sites with statutory protection and non-statutory designations either within or in the vicinity of the development area. Details of the locations and extents of Scheduled Monuments, Listed Buildings, Garden and Designed Landscapes, in GIS, were downloaded from Historic Scotland’s Spatial Data Warehouse¹. Additional information was provided on known archaeological sites and features within the proposed development area from the Dumfries and Galloway Council Historic Environment Record (HER). The data was provided in digital format.

¹ Historic Scotland’s Spatial Data Warehouse: <http://hsewsf.sedsh.gov.uk/gisdl.html>.

- 12.14. Information on the character and condition of known archaeological sites and features within the proposed development area was obtained from the online Pastmap² resource maintained by the Royal Commission on the Ancient and Historic Monuments of Scotland (RCAHMS) and Historic Scotland, and from the National Monuments Record of Scotland (NMRS).
- 12.15. Ordnance Survey maps and other early maps held by the Map Library of the National Library of Scotland were examined, to provide information on sites of potential archaeological significance and historic land-use development.
- 12.16. An assessment was made of vertical aerial photograph collections held by the RCAHMS. Sorties dating from 1950, 1975 and 1988 were available for examination.
- 12.17. Bibliographic references were consulted to provide background and historical information.
- 12.18. The online Historic Land-Use Assessment for Scotland³, maintained by the RCAHMS was consulted for information on the historic land use character of the proposed development area.
- 12.19. The Scottish Palaeoenvironmental Database⁴ which records the distribution of known palaeoenvironmental sites across Scotland was consulted for information on data within or adjacent to the windfarm area.
- 12.20. The results of previous archaeological desk-based assessment and field survey work carried out for a proposed forestry scheme at Duchrae Farm (Hastieⁱⁱⁱ) were consulted and used as the basis of the cultural heritage baseline within the proposed development area.

Field Visit (Receptor Settings)

- 12.21. A field visit (27.08.10) was carried out to assess the character and sensitivity of the settings of cultural heritage receptors within 15km of the proposed development to assess the character and sensitivity of the settings of the receptors and to assess the effects of the proposed development on those settings.

Consultation

- 12.22. Responses to scoping were received from Historic Scotland (05.03.2010), the Dumfries and Galloway Council Archaeologist (08.03.2010) and the Dumfries and Galloway Council Planning and Environment Services (23.03.2010). Details are provided in **Table 12.1** below.
- 12.23. At the suggestion of the Dumfries and Galloway Council Archaeologist, CFA Archaeology Ltd sent a consultation letter to the Monavie History Group inviting any comments they may have on the proposed development in terms of its potential to affect any local history or archaeological interest in the area and asked to be provided with information on any unreported archaeological sites or work that the group may have carried out within or in the vicinity of the proposed development area. No response was received from the history group.
- 12.24. Following analysis of the provisional ZTV for the proposed development, a list of provisional cultural heritage viewpoints for setting assessment was provided by CFA Archaeology Ltd to Historic Scotland and the Dumfries and Galloway Council Archaeologist for their approval. Details are provided in **Table 12.2** below.

² Pastmap website: <http://jura.rcahms.gov.uk/PASTMAP/start.jsp>

³ Historic Land-Use Assessment for Scotland website: <http://www.rcahms.gov.uk>

⁴ SPAD website: <http://xweb.geos.ed.ac.uk/~aj/spad>

Table 12.1: Consultation Responses

Consultee	Scoping/Other Consultation	Issue Raised	Response/Action Taken
Historic Scotland	Scoping Response (05.03.2010)	<p>Welcomed the preparatory work carried out for the cultural heritage assessment.</p> <p>Noted that the Landscape and Visual assessment identifies a number of these sites as viewpoints and recommends that the produced photomontages are also utilised in the cultural heritage assessment</p>	<p>List of key cultural heritage receptors identified from the ZTV is provided in Appendix 12.2.</p> <p>Indirect visual impacts are assessed in Section 'Operational Impacts'.</p>
Dumfries and Galloway Council Archaeologist and Planning and Environment Services	Scoping Response (08.02.2010)	<p>Confirmed that cultural heritage should be assessed as part of the EIA.</p> <p>Advised that as the proposed site has already been subject to archaeological ground survey in connection with a recent forestry proposal, no additional ground survey is required.</p> <p>Requested that an assessment of the impact on the setting of cultural heritage features should be led by consideration of the ZTV.</p>	<p>List of key cultural heritage receptors identified from the ZTV is provided in Appendix 12.2.</p> <p>Indirect visual impacts are assessed in Section 'Operational Impacts'. Table 12.2 provides a list of cultural heritage wireframes and LVIA photomontages included in the assessment.</p>
Historic Scotland	Consultation regarding cultural heritage viewpoints (27.07.2010)	<p>Approved the provisional cultural heritage viewpoint list. In addition, requested that the view looking towards</p>	<p>An assessment of the indirect visual impact on views to the Earlstoun Castle is detailed in the Section 'Operational</p>

		Scheduled Earlstoun Castle (1118) should be assessed as the windfarm has the potential to impact on the views to the Castle from the west despite the Castle itself not being within the ZTV.	Impacts' and Figure 12.6
Dumfries and Galloway Council Archaeologist	Consultation regarding cultural heritage viewpoints (05.08.2010)	Approved the cultural heritage viewpoint list (Table 12.2). In addition, requested that the visual indirect impacts be assessed for two further Scheduled Monuments, Polmaddy medieval and post-medieval settlement (5391) and Braidnoch Hill, cross slabs (1105); and one non-designated site Loch Hill farmstead (which lies within the proposed windfarm area) be assessed.	Indirect visual impacts are assessed in Section 'Operational Impacts'. Table 12.2 provides a list of cultural heritage wireframes and LVIA photomontages included in the assessment. These visualisations are provided as Figures 12.4, 12.5 and 12.8.
Dumfries and Galloway Council Archaeologist	Further consultation regarding cultural heritage viewpoints (24.08.2010)	Requested that two additional viewpoints (from the public road around Duchrae Farm and from the public road east of the Commemorative Cairn for Lochinvar Dam) be considered in order that the indirect visual impacts on the more immediate character of the historic environment be assessed as part of the ES.	Indirect visual impacts are assessed in Section 'Operational Impacts'. Table 12.2 provides a list of cultural heritage wireframes and LVIA photomontages included in the assessment. These visualisations are provided as Figures 12.9 and 12.10.
Monavie History	Other Consultation	No reply received	

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Table 12.2 Cultural Heritage Photomontage and Wireframe Viewpoints

Site name	Status	Photomontage / Wireframe no
Kenmure Castle (7743)	Scheduled Monument and NIDL	Photomontage: Chapter 7: Figure 7.13
White Cairn (1047)	Scheduled Monument	Photomontage: Chapter 7: Figure 7.7
Balmaclellan Motte (1109)	Scheduled Monument	Photomontage: Chapter 7: Figure 7.10
Dalry Motte (1117)	Scheduled Monument	Wireframe: Figure 12.3
Polmaddy medieval and post-medieval settlement (5391)	Scheduled Monument	Wireframe: Figure 12.4
Braidnoch Hill, cross slabs (1105)	Scheduled Monument	Wireframe: Figure 12.5
Earlstoun Castle (1118 / 3624)	Scheduled Monument / Category A Listed	Wireframe: Figure 12.6
Barscobe Castle (3310)	Category A Listed Building and NIDL	Wireframe: Figure 12.7
Loch House (Cultural Heritage Site 34 - ruined farmstead)	Non-designated	Wireframe: Figure 12.8
Duchrae Farm (Cultural Heritage Site 73 - farmstead)	Non-designated	Wireframe: Figure 12.9
Lochinvar Dam Commemorative Cairn	Non-designated	Wireframe: Figure 12.10
Kenmure Castle (7743)	Scheduled Monument and NIDL	Cumulative Wireframe: Chapter 7: Figure 7.31
Polmaddy medieval and post-medieval settlement (5391)	Scheduled Monument	Cumulative Wireframe: Figure 12.12
Braidnoch Hill, cross slabs (1105)	Scheduled Monument	Cumulative Wireframe: Figure 12.13
Barscobe Castle (3310)	Category A Listed Building and NIDL	Cumulative Wireframe: Figure 12.14

Assessing Significance

12.25. The impacts of the proposed development on cultural heritage assets are assessed on the basis of their type (direct, secondary, indirect, cumulative), nature (beneficial, neutral or adverse),

and longevity (reversible, short-term or long-term; irreversible, permanent). The assessment takes into account the sensitivity of the receptor and the magnitude of impact. Mitigation measures designed to prevent, reduce or offset significant adverse effects are proposed, and residual effects are assessed taking into account the likely effectiveness of the mitigation proposed.

- 12.26. The assessment of sensitivity of archaeological and heritage assets reflects the relative weight which statute and policy attach to them, principally as published in Scottish Planning Policy (SPP) and Scottish Historic Environment Policy (SHEP) (July 2009). **Table 12.3** summarises the relative sensitivity of key cultural heritage resources.

Table 12.3: Sensitivity of Cultural Heritage

Sensitivity	Definition / criteria
High	Sites of national or international importance, including: World Heritage Sites Scheduled Monuments, and sites proposed for scheduling Undesignated archaeological sites and areas of likely national importance identified in HERs/SMRs Category A Listed Buildings Gardens and Designed Landscapes (Inventory sites) Outstanding Conservation Areas Designated Wreck Sites
Medium	Sites of regional importance, including: Archaeological sites and areas of distinctive regional importance Archaeologically Sensitive Areas Category B listed buildings Conservation Areas Non-Inventory Designed Landscapes
Low	Sites of local Importance, including: Archaeological sites of local importance Category C(S) listed buildings Unlisted historic buildings and townscapes with local (vernacular) characteristics
Negligible	Sites of little or no importance, including: Sites of former archaeological features Unlisted buildings of minor historic or architectural interest; Poorly preserved examples of particular types of feature

Assessment of Direct Impacts

- 12.27. Criteria for assessing magnitude of direct impacts, which measures the degree of change to the baseline condition of a feature that would result from the construction of one or more elements of the proposed development, are classified in **Table 12.4**.

Table 12.4: Magnitude of Direct Impacts

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

- 12.28. The sensitivity of the receptor and the magnitude of the predicted impact are then used to inform the professional judgement of the likely significance of the direct impact. **Table 12.5** summarises the criteria for assigning significance of a direct impact. Major and moderate direct impacts are considered significant in terms of the EIA regulations. Where a direct impact on a feature is likely, the assessment will contain a summary statement of the ‘cultural significance’ of that feature (following the guidance defined in Annex 1 of SHEP).

Table 12.5: Significance of Direct Impacts

Magnitude of Impact ▼	Significance of Impact			
	<i>High</i>	Minor	Moderate	Major
<i>Medium</i>	Negligible	Minor	Moderate	Major
<i>Low</i>	Negligible	Negligible	Minor	Moderate
<i>Imperceptible</i>	Negligible	Negligible	Negligible	Minor
	<i>Negligible</i>	<i>Low</i>	<i>Medium</i>	<i>High</i>
	Sensitivity ►			

Identification of External Receptors and Characterisation of their Setting

- 12.29. The setting of a heritage site, feature or area is defined as ‘the immediate and extended environment that is part of, or contributes to, its significance and distinctive character’ (International Council on Monuments and Sites (ICOMOS) 2005^{iv}). Beyond the physical and visual aspects, the setting includes interaction with the natural environment; past or present social or spiritual practices, customs, traditional knowledge, use or activities and other forms of intangible cultural heritage aspects that created and form the space as well as the current and

dynamic cultural, social and economic context. In Historic Scotland's recent guidance document - Managing Change in the Historic Environment: Setting (Consultation Draft August 2009) - it notes that 'setting can be thought of as the way in which a historic structure's surroundings contribute to how it is experienced, understood and appreciated'.

- 12.30. Current Historic Scotland guidance (2009^v) notes that the setting of a receptor could be affected by the introduction of new development into its surroundings, even if that new development will not be directly visible from the receptor. Such cases may arise, for example, when both development and a highly sensitive receptor will be caught in important views, vistas or prospects from somewhere other than the receptor location.
- 12.31. Details of previously recorded cultural heritage sites, monuments and landscape features with statutory and non-statutory designations⁵, undesignated archaeological sites of likely national importance, within the landscape surrounding, the proposed development area were obtained. A Zone of Theoretical Visibility (ZTV) map, generated for the proposed development, was used to identify those cultural heritage receptors within 15km of the proposed development from where there is theoretical intervisibility with one or more wind turbines.
- 12.32. The baseline setting of each relevant receptor or related group of receptors was then characterised on a case-by-case basis. Characterisation of setting of a receptor was based upon its properties and location, and took into account the factors identified in guidance issued by Historic Scotland (2009^{vi}). The baseline setting of each receptor was characterised principally in terms of the:
- Archaeological / historical context of the receptor.
 - Current landscape and visual surroundings of the receptor.
 - Aesthetic and experiential properties of the receptor within its surroundings.
 - Social value (actual or potential) of the receptor as a recreational / leisure or educational resource.
- 12.33. A field visit was undertaken to assess the character and sensitivity of the settings of the identified receptors, and to assess the effects of the proposed development on those settings. The site visit focused on cultural heritage sites most likely to receive significant effects on their settings (i.e. those closest to the development area and those specifically identified as requiring assessment by Dumfries and Galloway Council and Historic Scotland). Where access was difficult or denied, publicly accessible locations as close as possible to the receptor were sought as a basis for assessment. This applies to private houses and gardens and sites and monuments on private land. Where relevant, the viewpoint photomontages generated to inform the landscape and visual impact assessment (Chapter 6) were used to aid the assessment. Factors considered included:
- the location and orientation of the site;
 - important views of or from principal facades;
 - the importance, if applicable, of designed settings; and

⁵ Scheduled Monuments, Listed Buildings, Conservation Areas, Garden and Designed Landscapes; including candidate sites where applicable

- any obvious views or vistas.

12.34. The outcome of this work was an understanding, involving the application of professional judgement, of the key characteristics that define the setting of each receptor. Where it is established that the setting of a receptor is such that there is no potential for it to be affected by the presence of the development, the receptor will not be considered further in the assessment. Examples may occur where the setting of a receptor is localised and does not include the development area or, as noted in Historic Scotland's published guidance, the setting of a cultural heritage asset may not include all land visible from that asset, since distant views alone are not necessarily sufficient to raise concerns about adverse effects on setting.

Assessment of Impacts on Setting

- 12.35. For each receptor, where a potential effect on setting has been identified, the assessment of possible effects has followed a four-stage approach:
- Identification of the characteristics of the setting of the receptor (see above).
 - Assessment of the sensitivity of that setting.
 - Identification of how the presence of the proposed development will affect that setting (magnitude of impact).
 - Assessment of significance of impact.
- 12.36. Effects on the settings of Gardens and Designed Landscapes, including those on important views and vistas have been assessed jointly by the EIA landscape architects (LUC) and the cultural heritage specialists (CFA). The findings are presented in this chapter for consistency with the assessment of other cultural heritage receptors.

Criteria for Assessing Sensitivity of Setting

- 12.37. Sensitivity of setting has been assessed by considering two factors:
- The relative weight which statute and policy attach to the receptor and its setting.
 - The degree to which the baseline setting contributes to the understanding and / or appreciation, and hence value, of the receptor.
- 12.38. The relative weight that statute and policy attach to the receptor and its setting is determined using the sensitivity of archaeological and heritage resources set out in **Table 12.3**. Where individual designated receptors are present within larger designated areas (e.g. Listed Buildings within a Conservation Area; Scheduled Monuments within Areas of Archaeological Importance (AAIs)); the sensitivity is stated as the higher of the two designations.
- 12.39. The degree to which the baseline setting contributes to the understanding and / or appreciation of the receptor has been assessed according to the criteria set out in **Table 12.6**.

Table 12.6: Contribution of Setting to Understanding and Appreciation of a Cultural Heritage Receptor

Contribution	Definition
High	A setting which makes a strong positive contribution to the understanding and/or appreciation of the siting and/or

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

12.40. These two criteria are combined to assess the overall sensitivity of a setting, as set out in **Table 12.7**.

Table 12.7: Sensitivity of Setting of a Receptor

Sensitivity of Receptor ▼	Contribution ►			
	<i>High</i>	<i>Moderate</i>	<i>Low</i>	<i>Negligible</i>
<i>High</i>	High	High	Medium	Low
<i>Medium</i>	High	Medium	Low	Low
<i>Low</i>	Medium	Low	Low	Low

Identification of Magnitude of Impact on Setting

12.41. Where it has been identified that the setting of a receptor is such that there is no potential for it to be affected by the presence of the development, the receptor will not be considered further in the assessment. For the remaining sites, the magnitude of impact on setting has been assessed according to the thresholds in **Table 12.8**.

Table 12.8: Magnitude of Impacts on Setting

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

Assessment of Impact Significance

12.42. The significance of an impact on setting depends on both the magnitude of the impact and the sensitivity of the setting of the receptor. **Table 12.9** presents a matrix that has been used together with professional judgement to determine the level of significance of an impact.

Table 12.9: Significance of Impacts on Setting

Magnitude ▼	Sensitivity ►		
	<i>High</i>	<i>Medium</i>	<i>Low</i>
<i>High</i>	Major	Major	Minor
<i>Medium</i>	Major	Moderate	Minor
<i>Low</i>	Minor ⁶	Minor	Negligible
<i>Imperceptible</i>	Negligible	Negligible	Negligible

12.43. Significance of impact is classified as major, moderate, slight or negligible, as defined in **Table 12.10**. Major and moderate impacts are considered significant in terms of the EIA Regulations.

Table 12.10: Significance Criteria

Significance of Effect	Definition
Major	A change to the fabric or setting that leads to a substantial effect on the character, quality or context of a receptor.
Moderate	Changes to the fabric or setting that lead to a material effect on the character, quality or context of a receptor.
Minor	Changes to the fabric or setting that lead to a detectable but non-

⁶ A non-material change to baseline conditions cannot by nature lead to a significant impact. A significant impact arises from a material change to baseline conditions. This distinction explains why this particular significance assessment finding is not 'moderate'.

	material effect on the character, quality or context of a receptor.
Negligible	Changes to the fabric or setting that lead to, at most, a negligible effect on the character, quality or context of a receptor.

PLANNING POLICY

12.44. Planning policies of relevance to this assessment are provided in **Chapter 5: Planning Policy**.

EXISTING CONDITIONS

12.45. This section presents:

- A summary of the type and quantity of cultural heritage sites and features identified through desk-based resources and field survey.
- The current baseline condition of designated and non-designated cultural heritage sites and features within the development area.
- An assessment of the archaeological potential of the development area as a whole.

12.46. Numbers in brackets, in the following sections, refer to site numbers identified on **Figure 12.1** and **Appendix 12.1**.

12.47. Due to the reduction in the windfarm area boundary during the EIA process, site numbers that do not appear in **Appendix 12.1** and on **Figure 12.1** relate to cultural heritage sites that now lie outwith the boundary of the proposed windfarm.

Cultural Heritage Resources within the Development Area

12.48. Thirty-eight cultural heritage sites and features have been identified by the study within the windfarm area. **Appendix 12.1** provides detailed gazetteer information on the character and baseline condition of each site identified by the study.

12.49. There are no Scheduled Monuments present within the proposed development area and no part of the proposed development area lies within a Conservation Area or Garden and Designed Landscape.

12.50. One Category B Listed Building, Halfmark Bridge (HBNum 3626)), which carries the public road over the Lochinvar Burn, lies just at the southern extent of the development area.

12.51. The NMRS and Dumfries and Galloway Council's HER contain records for fourteen cultural heritage sites and features within the development area. Additional information on the character and preservation of four of these sites were provided from documentary sources, including previous field survey reports (McKeague 1991a^{vii}) held by the Royal Commissions (RCHAMS).

12.52. The Scottish Palaeoenvironmental Database (SPAD) provided no relevant information specific to the proposed windfarm.

12.53. The character and condition of the sites located within the proposed development area were taken from previous archaeological work carried out for a proposed forestry scheme at Duchrae Farm (Hastie^{viii})

12.54. Details of all sites and features identified within the proposed development area are provided in **Appendix 12.1** and discussed thematically below.

12.55. The majority of features and structures identified within the proposed windfarm area are associated with medieval or later agricultural activity. All of these sites contribute to the present character of the landscape and are considered to be of no more than local importance.

Medieval or Later Farmsteads

12.56. Two settlements are first shown in the area on Roy's Military Survey map (1747-55), farmsteads surrounded by cultivation areas at, Duchrae (73) and Half Mark (60). These settlements are also depicted on the Ordnance Survey 1st Edition map (1854) along with a third farmstead at Loch House (34).

12.57. The farmstead at Loch House (34) is very poorly preserved. The settlement is visible only as a series of low relief drystone walls situated in an area of improved pasture. Denuded field banks to the southwest of the farmstead may indicate that the farm was once surrounded by a number of fields or enclosures. Rig and furrow remains were recorded to the south of the farmstead. This area of cultivation is depicted on the Ordnance Survey 1st Edition map and annotated as 'Old Fences' suggesting that it formed a relict field of 18th century or earlier date. The farmstead is annotated as 'Ruin' on the Ordnance Survey 1st Edition map indicating that it was abandoned prior to the mid 19th century. The farmstead is considered to be of low sensitivity and local historical environment interest.

12.58. The farmstead at Duchrae (73) is currently occupied and is a working farm. Today the farm consists of a 19th century farmhouse and steading. Elements of the group of buildings that make-up the farm steading are recorded on the Ordnance Survey 1st Edition map (1854) and it is probable that the surviving buildings could be 18th century or earlier in date. Examination of historical maps indicates that the current farmhouse is a later 19th century addition to the farm, first shown on the Ordnance Survey 2nd Edition map (1895). The farm is considered to be of low sensitivity and local historical environment interest.

12.59. No remains of the settlement (60) were identified at Half Mark. The area has recently been developed with the construction of a water treatment works and reservoir; a modern bungalow; and an area of recent conifer plantation, and it is possible that the remains of any settlement have been destroyed. The site is of unknown, but of no more than low, sensitivity.

12.60. The Ordnance Survey 1st Edition map (1854) depicts an unroofed structure (71) at an unnamed burn north of Duchrae Farm. The structure is annotated as 'Ruin' indicating that it had been abandoned prior to 1854. No remains of the structure were recorded, however, a large quantity of stone rubble was noted in the area and the building may still survive as buried remains. The site is of unknown, but no more than low, sensitivity.

Field Systems

12.61. Field systems, comprising of former areas of rig and furrow cultivation and the remains of field banks are present at Loch Hill (34), and Half Mark Hill (74). The field systems are depicted on the Ordnance Survey 1st Edition map (1854) and annotated as 'Old Fences' indicating that the structures are of 18th century or earlier date and may be remains of fields shown on Roy's Military Survey map (1747-55). The remains of field systems on high moorland perhaps indicate the cultivation of these areas at a time of better climatic conditions in the earlier

medieval period. The field systems are considered to be of low sensitivity and local historical environment importance.

- 12.62. Field survey recorded discontinuous and denuded field banks concentrated on the higher, dry knolls (including sites 32, 38, 39, 48, 55, 66, 69, 75). The Ordnance Survey 1st Edition map shows, however, that the field systems were primarily more extensive than recorded in the field. The limited survival of the field systems is probably due to a combination of erosion over time and the inundation of features in wet marshy areas. It is possible that the remains of fields systems shown on the Ordnance Survey 1st Edition map but not recorded in the field could possibly survive as buried features. All of these are considered to be of low sensitivity and local historical environment importance.
- 12.63. A figure of eight field system (62) is depicted on the Ordnance Survey 1st Edition maps (1854) just north of Duchrae farm. This field system has been replaced by two later, 19th century rectangular fields and all that survives of the earlier field system is a short section of poorly preserved field bank. The areas of former rig associated with the figure of eight field system (62) have been incorporated into the later fields and converted to improved pasture grassland the rig having been ploughed out. The remains of the field bank are considered to be of low sensitivity and local historical importance.
- 12.64. Drystone walls in varying states of preservation surround the majority of the windfarm area boundary, and define fields at Duchrae. The walls are depicted on the Ordnance Survey 1st and 2nd (1895) Edition maps and indicate that the area was progressively enclosed during the mid and late 19th century.

Clearance Cairns/Spreads

- 12.65. Clearance cairns were recorded in areas of improved pasture at Duchrae Farm (65) these consist of circular stone heaps which are fully turfed over. Clearance cairns are inherently difficult to date, however, it is suggested that given their survival in an area of former rig and furrow they are likely to be contemporary with the field systems. They are considered to be of low sensitivity and local historical environment importance.

Rig and Furrow Cultivation

- 12.66. Roy's Military Survey map (1747-55) depicts areas of rig and furrow cultivation surrounding the settlement at Half Mark (60). Substantial areas of improved land are also depicted on the Ordnance Survey 1st Edition map (1854) surrounding the main farmsteads and on the summits of higher ground at 'Isle Rig', the name suggesting that this was probably a medieval or later area of cultivation. Relict rig and furrow is visible on the aerial photographs from 1975, the rig corresponding with the improved ground and field systems depicted on the Ordnance Survey 1st Edition map.
- 12.67. Small areas of relict rig and furrow (34, 52, 67) were recorded during the field survey principally associated with the field system at Loch House (34), however, the rig was poorly preserved and only visible generally as faint outlines. Very little of that detected by the desk-based assessment was identified during the field survey. The relict rig and furrow areas are all considered to be of low sensitivity and local historical environment importance.

Enclosures and Sheep Shelters

- 12.68. Seven enclosures (42, 46, 49, 54, 61, 64, 68) were recorded within the proposed development area. One of these (49) is recorded on the Ordnance Survey 1st Edition map (1854) as a 'sheep

ree', and three (42, 46, 54) are annotated as 'Hay Ree'. Three of the enclosures (61, 64, 68) are in good condition'; two enclosures (64, 68) have replaced earlier sheep management features depicted on the Ordnance Survey 1st Edition map. The others are poorly preserved and in a ruinous state; in most cases only the basal course still survives. The 'Hay Ree' at Duchrae (54) has been replaced by a later sheepfold, shown on the Ordnance Survey 2nd Edition map (1895).

- 12.69. A further crescent-shaped sheep shelter (51) was recorded during the field survey. This is not depicted on the Ordnance Survey 1st Edition map (1854) but is shown on the Ordnance Survey 2nd Edition indicating that it is of late 19th century date.
- 12.70. The presence of a large number of sheep management features in the area, dating from the mid / late 19th century, indicates that the proposed development area was principally used for grazing animals during this period, a land-use that has continued into the present day. The enclosures are all considered to be of low sensitivity and of local historical environment importance.

Gravel Pits/Quarries

- 12.71. The Ordnance Survey 1st Edition map (1854) depicts fourteen gravel pits (76) along the length of the public road from Milnmark to Lochinvar Lodge. A further gravel pit (53) not noted on the Ordnance Survey 1st Edition map (1854) was recorded on the north edge of a grassy knoll at Duchrae Farm. The gravel pits were probably used during the construction and maintenance of the road. The quarries make little contribution to the character of the historic landscape and are considered to be of negligible sensitivity and lesser historical environment importance.
- 12.72. A gravel pit (50) depicted on the Ordnance Survey 1st Edition map (1854) no longer survives having been removed during ground breaking for modern water drainage.

Other Features

- 12.73. A footbridge (41) crossing an unnamed burn to the southwest of Loch House is depicted on the Ordnance Survey 1st Edition map (1854) but does not survive today. The footbridge is considered to be of negligible sensitivity and lesser historical environment importance.
- 12.74. Several tracks are shown crossing the proposed development area on the Ordnance Survey 1st Edition map (1854). A track (47), annotated as 'Foot Path', is shown running from Gordonston Farm to Loch House and continuing out of the proposed development area. This track probably formed a main thoroughfare connecting the farmsteads in the area; however, no remains of the track survive. The tracks are considered to be of negligible sensitivity and lesser historical environment importance.
- 12.75. There were no surviving remains of two wells depicted on the Ordnance Survey 1st Edition map at Duchrae (72). The wells may not necessarily have had physical structures that would have subsurface remains, many of the wells noted on the Ordnance Survey 1st Edition map relate to small / natural springs. The wells are of unknown, but no more than negligible, sensitivity.
- 12.76. A possible medieval or post-medieval corn stack platform (43) was recorded south of Lochinvar Reservoir. The structure comprises a circular platform of stone on which the corn stack was placed to raise it above the wet ground. The corn stack forms part of the historical character of the current landscape and is considered to be of low sensitivity and local historical environment importance.

- 12.77. Seven derelict grouse butts (37) were recorded at the southern edge of Knockdolan Forestry Plantation. The grouse butts are not depicted on either the Ordnance Survey 1st or 2nd Edition maps indicating that they are of probably early 20th century date. These structures are considered to be of low sensitivity and local historical environment importance.
- 12.78. Lochinvar Dam (33) was constructed in 1968 to supply water to the Stewartry area. A commemorative cairn (45) marks this construction. The dam is judged to be of low sensitivity and local historical environment importance, while the cairn is considered to be of negligible sensitivity and lesser historical environment interest.

Sites of non-antiquity

- 12.79. Three sites (40, 63, 70) recorded in the NMRS and HER as identified from aerial photographs have been found by field survey, (Ordnance Survey 1978), and this study to be non-antiquities (sites that are not archaeological in origin – e.g. areas of land drainage, etc). These features are considered to be of negligible sensitivity and lesser historical environment importance.

Assessment of Archaeological Potential of the Proposed Windfarm Area

- 12.80. The current land-use character of the proposed development area is predominantly rough pasture farmland, with occasional areas of improved pasture at, Duchrae, Loch House and Halfmark Hill. Settlements in the area are first depicted on Roy's Military Survey map (1747-55) with farmsteads at Duchrae and Half Mark surrounded by areas of cultivation. A number of old field systems are shown on the Ordnance Survey 1st Edition map (1854). These are perhaps the fields depicted on Roy's map and could be of 18th century or earlier date.
- 12.81. Lochinvar Reservoir was formed in 1968 when a dam was built at Lochinvar Loch to raise the water levels to provide water supply to the Stewartry area. The ruins of Lochinvar Castle (NX68NE 1), reputedly the home of the Gordons, were present on a small island in the Loch prior to the construction of the dam. The Gordons of Lochinvar, titled Viscount of Kenmure, settled in the area from the late 13th century and are acknowledged in Sir Walter Scott's poem 'The Ballad of Young Lochinvar'.
- 12.82. The proposed development area is located approximately 5km from St John's Town of Dalry, which primarily grew to service the needs of pilgrims travelling from Edinburgh to the ecclesiastical centre at Whithorn during the early medieval period (c.12th-13th centuries). Today, the town is still a main stopping point for walkers making their way along the Southern Upland Way, which runs approximately 2km west of the proposed windfarm area boundary. The Knights Hospitaller of the Order of St John of Jerusalem owned the land on which St Johns Town of Dalry was built, and the surrounding area, until the Reformation. The area is also connected with the Covenanter movement in the 17th century.
- 12.83. The NMRS records possible earlier, prehistoric settlement within close proximity to the area: including possible hut circles at Stell Knowe ((NMRS Ref no: NX68SW 44, and Drumdellie (NMRS Ref nos: NX68SW 42 / 113) both 1.5km to the west of the proposed windfarm.
- 12.84. Substantial field systems and traces of former rig and furrow cultivation are present within or in close proximity to the proposed windfarm area, notably at Stell Knowe, Barfadden and Half Mark Hill. These perhaps indicate the cultivation of high moorland areas at a time of better weather conditions in the 13th and 14th centuries, and could be associated with the occupation of Lochinvar Castle and settlement at St John's Town of Dalry. Post-medieval farmsteads are recorded at, Duchrae and Loch House. The structures at Duchrae are noted on Roy's Military Survey map (1747-55) and some of these may have earlier origins.

- 12.85. The area has not been extensively developed in recent times and has been principally used for grazing animals during the later 19th and 20th centuries. Given the large quantity of archaeological features, principally of medieval or later date, recorded in close proximity of the proposed development area it is considered that the potential of as yet, undetected, burial remains and sites surviving within the proposed windfarm area is moderate to low. However, given the limited land take necessary for the construction of the proposed wind farm the probability of encountering sites or features of archaeological significance is judged to be low.

The 'Do Nothing' Scenario

- 12.86. If the proposed windfarm was not to proceed there would be no change to the baseline condition as a consequence of that development. If no development were to be undertaken then the current pasture land-use would be likely to continue, limiting the disturbance to cultural heritage assets, and only natural decay would occur to the upstanding remains. There would be no change to the setting of external cultural heritage receptors. However, an alternative proposal for mixed woodland afforestation of the Duchrae Estate land, including Loch Hill (and Bogue Moor to the west) has been given planning consent and if the proposed windfarm is not approved the forestry proposal will be taken forward. The forestry proposal would lead to some loss or damage of archaeological remains by ground preparation, planting, quarrying and forest road construction and loss, damage or obscuring of archaeological remains by tree growth.

WINDFARM LAYOUT CONSIDERATIONS

- 12.87. The results of the desk-based study and reconnaissance field survey were provided as GIS data with the locations of cultural heritage features highlighted. Cultural heritage sites and features were recorded using a Global Positioning System (GPS), the grid references provided are accurate to around 1-2m. Sites and features were recorded as either point locations – given for small individual features such as hay rees, individual cairns and isolated buildings, linear representation – for individual trackways and field boundaries; and area – where a number of related features form integrated sites, for instance farmstead remains and associated field systems.
- 12.88. The layout of the windfarm, including the positioning of the turbines, access tracks and other infrastructure elements has been arrived at through a series of iterative stages to develop the best layout within the context of all environmental and technical constraints. The layout shown on **Figure 12.1** therefore embeds design based mitigation into the siting of the turbines **as far** as possible. Where the development infrastructure might affect sites of local or greater importance appropriate mitigation will be undertaken to remove or minimise disturbance (see Section 12.107 - 110).

IMPACT ASSESSMENT

- 12.89. The assessment of impacts is based upon the proposed windfarm area description outlined in **Chapter 5: Scheme Description** and is structured as follows:
- construction impacts;
 - operational impacts;
 - cumulative impacts.

CONSTRUCTION IMPACTS

Predicted Impacts

- 12.90. Any ground breaking activities associated with the construction of the proposed windfarm (such as those required for turbine bases and crane hardstandings, access tracks, cable routes, compounds, etc) have the potential to disturb or destroy features of cultural heritage interest. Other construction activities, such as vehicle movements, soil and overburden storage and landscaping also have the potential to cause direct, permanent and irreversible impacts on the cultural heritage.
- 12.91. Using the criteria detailed in **Tables 12.3 – 12.5** of this Chapter, **Appendix 12.1** provides a summary assessment of the predicted impacts on the cultural heritage sites and features identified by the study within the proposed windfarm. These impacts are discussed in more detail below.
- 12.92. The proposed access track and cable trenches running from Duchrae Farm to Turbine 2 would directly affect the remains of a surviving field bank (55). The field bank is considered to be of low sensitivity. The access track would cross the southern end of the field bank. However, only a small part of the field bank would be affected by the construction work. The predicted direct impact on the field bank is therefore considered to be of low magnitude and of negligible significance.
- 12.93. A direct impact is predicted for a small area of relict rig and furrow cultivation (67) which would be crossed by the proposed access track from Turbine 4 to Turbines 5 and 7. The rig and furrow remains are considered to be of low sensitivity. The proposed access track would only affect the very northeast edge of the surviving rig and furrow remains (highlighted in dark green on **Figure 12.1**). The predicted impact is therefore considered to be of low magnitude and of negligible significance.
- 12.94. A direct impact is predicted for the site of a former building (71) which would be crossed by the proposed access track and cable trenches from Duchrae Farm to Turbine 2. The building is of unknown, but no more than low, sensitivity. No surface remains of the building survive; however, there is the potential for ground breaking works for the access road to disturb any buried remains of the building and / or associated features that may survive. If buried remains survive then the direct impact could be of high magnitude, resulting in an impact of unknown, but no more than moderate significance. Mitigation would offset the predicted impact through recording of any surviving remains prior to their loss.
- 12.95. Direct impacts are predicted on two former wells (72), the locations of which lie in an area designated as a borrow pit search area (for Borrow Pit 1). The wells are of unknown, but no more than negligible sensitivity. No surface remains of the wells survive and it is unknown if the wells were built structures or simply springs. However, there is the potential for ground breaking works in the borrow pit search area to disturb any buried remains of the wells and / or associated features that may survive. If any structural remains of built wells survive the direct impact would be of high magnitude, resulting in an effect of unknown, but no more than minor, significance.
- 12.96. In addition to the site specific predictions, stated above, ground-disturbing excavations associated with the construction of the proposed windfarm could have an adverse effect on any unrecorded, buried archaeological remains present in affected areas. Taking into account the limited extent of the proposed ground disturbance generated by the construction of access

tracks, cable routes, turbine bases, hardstanding areas, construction compound and substation, the likelihood of encountering remains of archaeological significance is considered to be low. Mitigation through archaeological monitoring of ground works in specified areas (agreed in advance with the Dumfries and Galloway Council Archaeologist) would offset the predicted impact through the identification and recording of any surviving remains prior to their loss; or other mitigation, such as preservation in situ of any important archaeological remains where required by the Council Archaeologist.

Proposed Mitigation

- 12.97. Except where otherwise stated all mitigation works presented in the following paragraphs would take place prior to or during the construction of the proposed windfarm. All works would be conducted by a professional archaeological organisation, and the scope of works would be detailed in a Written Scheme of Investigation (WSI). The WSI would make provision for appropriate post-excavation analyses and dissemination of the results of the mitigation works, as well as for archiving of the project materials and records. The WSI would be subject to the approval of the Dumfries and Galloway Council Archaeologist.

Preservation in situ

- 12.98. Where features lie in close proximity to proposed development features they would be avoided as far as practical to ensure their preservation in situ. Where appropriate, sites would be either entirely fenced off or visibly marked-out to prevent accidental damage occurring to the remains during construction activities in the vicinity.
- Disturbance of a field bank (55) where it is crossed by the proposed access track and cable trench would be kept to a minimum.

Watching Briefs and Evaluation

- 12.99. Any requirements for archaeological mitigation through pre-construction trial trench evaluation or construction phase monitoring of works through watching briefs would be agreed in consultation with the Dumfries and Galloway Council Archaeologist. Site mitigation work may be required along proposed access track routes and at proposed turbine locations, for example. Where there is a possibility that construction activities may encounter buried remains of former sites, a watching brief would be carried out. An archaeological Clerk of Works will be appointed to undertake monitoring works in sensitive areas, identified in consultation with the Dumfries and Galloway Council Archaeologist.

Evaluations

- A sample excavation would be carried out of the remains of a field bank (39, 55) that would be crossed by the proposed access track and cable trench to Turbine 2.

Watching Briefs

- A watching brief would be carried out during ground breaking required during the construction of the access track and cable trenches to Turbines 1 and 2 where it passes the former site of a building (71)

- A watching brief would be carried out during any ground breaking in the Borrow Pit Search Area 1 in the vicinity of the recorded locations of two former wells (72).
- A watching brief would be carried out during any ground breaking in the area of rig and furrow remains (67).

Post-Excavation

12.100. If significant discoveries are made during archaeological monitoring, and preservation in situ of any sites or features is not possible, provision would be made for the excavation, where necessary, of any archaeological remains encountered. This provision would indicate the consequent production of written reports on the findings, with post-excavation analyses and publications of the results of the works, where appropriate.

Construction Guidelines

12.101. Written Guidelines would be issued for use by all construction contractors, outlining the need to avoid causing unnecessary damage to known sites. That document will contain arrangements for calling upon retained professional support in the event that buried archaeological remains of potential archaeological interest (such as building remains, human remains, artefacts etc) should be discovered in areas not subject to archaeological monitoring. The guidance will make clear the legal responsibilities placed upon those who disturb artefacts or human remains.

Residual Impacts

12.102. The completion of the programme of archaeological mitigation works set out above would offset the loss of the archaeological resource that would occur as a result of the construction of the proposed development. Taking the mitigation into account, no significant residual effects are anticipated in relation to cultural heritage resources within the proposed windfarm.

OPERATIONAL IMPACTS

Predicted Impacts

12.103. A list of those external receptors within 15km of the proposed development and predicted by the ZTV to have theoretical views of one or more turbines is provided in **Appendix 12.2** and their locations are shown on **Figure 12.2**. **Appendix 12.2** provides a summary assessment of the predicted impacts on a site-by-site basis.

12.104. The assessment of magnitude of impacts provided in Technical **Appendix 12.2** has been based on the analysis of the blade tip ZTV, taking into account the distance of the assessed site from the proposed windfarm, the number of blade tips visible and the present baseline setting of each site. The ZTV model is, however, a coarse predictive tool based on bare-earth surface topography and maximum blade-tip heights. It takes no account of obstructions to intervisibility caused by existing forestry and other vegetation or buildings and other man-made features. Therefore, professional judgement has been used to assess the significance of impacts informed by ZTV and field surveys. Where Historic Scotland and the Dumfries and Galloway Archaeologist requested visualisations these have been used to further assess predicted impacts on setting.

12.105. Scheduled Monuments, Category A, B and C(S) Listed Buildings and Conservation Areas, and Inventory status Gardens / Designed Landscapes within 15km of the proposed windfarm; Non-Inventory Designed Landscapes, and Archaeological Sensitive Area within 10km of the proposed wind farm, and NSR sites within 5km are assessed. Analysis of the ZTV indicates that there would be theoretical visibility of the turbines from eleven Scheduled Monuments, two NSR sites, four Category A Listed Buildings, thirty Category B Listed Buildings, nine Category C(S) Listed Buildings; one Conservation Area, two Archaeological Sensitive Areas, and seven Non-Inventory Designed Landscapes. The limit of this study area has been set taking into account the guidance provided in PAN 45: Renewable Energy Technologies, which describes the perception of a wind farm in an open landscape: Up to 2kms 'Likely to be a prominent feature'; 2-5kms 'Relatively prominent'; 5-15kms 'Only prominent in clear visibility – seen as part of the wider landscape', and 15-30kms 'Only seen in very clear visibility – a minor element in the landscape'.

12.106. Sites identified by Historic Scotland and / or the Dumfries and Galloway Council to be specifically assessed in EIA (**Table 12.2**) and those that are judged to have the most sensitive settings have been assessed in more detail using wireframe visualisations and photomontages (**Figures 12.3-12.10 and Chapter 7, Figures 7.7, 7.10 & 7.13**). The ZTV and wireframe from Dalry Motte (Figure 12.3) demonstrate that no wind turbines will be visible from the site, therefore the proposed windfarm will have no impact on this monument and it is not discussed further.

12.107. The ZTV indicates that the surrounding natural topography of hills and ridges limits views of the proposed windfarm to those obtained from the immediately surrounding area and from limited areas further afield, to the northwest, west and southwest. Many of the key cultural heritage receptors are located along narrow river valleys which are set down in the landscape and from these sites there would be no views of the proposed windfarm; views of the proposed wind turbines are primarily limited to those sites that are situated at higher elevations and on hill summits. In addition, the proposed windfarm is surrounded by large swathes of commercial forestry plantation which also screens views of the proposed turbines from locations in the wider landscape.

12.108. No significant impacts have been predicted on the setting of cultural heritage receptors in the wider landscape.

Scheduled Monuments

12.109. White Cairn (1047), a large burial cairn of probable Bronze Age date is situated on the edge of a low promontory at approximately 220 AOD immediately west of a commercial conifer plantation, in an area of rough moorland / scrubland. The main views from the cairn are to the southwest, along the Garple Burn valley; views out to the north, east and south are screened by a large swathe of commercial forestry plantation. The closest of the Loch Hill turbines would be 1.4 km to the WNW of the cairn; however, a rise in topography (Knockman Hill) will limit views to the turbines, the ZTV predicting that five turbines would be visible from the cairn. The cairn is approximately 200m north of the A702 and is visible from a road-side parking area (**Chapter 7: Figure 7.7**) - the cairn can be seen on the extreme left in the photographs, behind the small solitary bush. In this view, the hubs of six turbines and the blades of a further two will be visible above the line of commercial forestry plantation, and beyond the skyline. There is a visual separation between the view of the cairn, which lies in the middle distance, and the windfarm, beyond the skyline. The presence of the proposed Loch Hill windfarm would not detract from an appreciation of the monument and its setting and the impact is assessed as being of low magnitude and of minor significance.

12.110. Balmaclellan Motte (1109) is situated on the summit of a low-lying hillock in an improved pasture field, immediately to the north of Balmaclellan Village. The motte, which survives as a grassed over mound, is a prominent feature in the area. It is clearly visible from a viewpoint at the village Memorial Cross, just off the A712 and overlooking the village. There are open views all around from the motte to the surrounding landscape, taking in the village to the south, and panoramic views to the surrounding hills to the north. The proposed windfarm would be to the north of the motte, the closest turbine being 4.6 km away (**Chapter 7: Figure 7.10**). The Loch Hill turbines would be visible in the far distance in views from the motte in a narrow arc beyond the horizon and against the skyline. The hubs of eight turbines and the blade tips of a further three would be visible. The Loch Hill windfarm would not detract from the appreciation of the motte nor would it materially change the landscape setting in which the motte lies. The proposed windfarm would also not be visible in views of the motte from the Balmaclellan Memorial Cross viewing point. It is considered that the impact on the setting would be of low magnitude and of minor significance.

12.111. Polmaddy medieval and post-medieval settlement (5391) consists of the well-preserved remains of a township or pre-improvement 'ferm-toun'. The remains of the township, including: building ruins, associated field systems, corn drying kilns, and a mill, lie on the southern slopes of Barles Hill, just north of the Polmaddy Burn, and are spread over an area measuring approximately 500m square. The route of an old pack road, which ran from Kirkcudbright to Ayr, passes through the township. The site, which lies in a large forest clearing surrounded by large swathes of commercial forest, is owned by the Forestry Commission who have placed interpretation boards at the site and laid a visitor path around the site. The proposed Loch Hill windfarm would be 7.7km to the southeast of the site; the turbines being visible beyond the skyline (**Figure 12.4**). The commercial forestry surrounding the township will, however, limit views to the proposed windfarm. The proposed windfarm will not detract from the appreciation of the township and the impact on its setting is assessed as being of imperceptible magnitude and of negligible significance.

12.112. The ruins of Kenmure Castle (7743) are situated on the flat summit of an artificial knoll immediately west of the Lane River and at the head of Loch Ken. The castle is of 17th century origin and is well known for its connection with Robert Burns (who wrote 'Kenmure's up and awa, Willie' after visiting the castle) and a painting of the castle was published in 'The Land of Burns' - A series of Landscapes and Portraits, Illustrative of the Life and Writings of the Scottish Poet' in 1846, showing the castle from the north with Loch Ken behind it. The castle was occupied until the 1950s but today is unoccupied and roofless. The remains of the castle and the knoll on which it stands are surrounded by dense woodland that limits views out to the surrounding landscape (**Chapter 7: Figure 7.13**). The remains of a 1st floor balcony survive on the southern side of the castle, from which there would have been open views out southwards over Loch Ken. The castle is accessed from the A712 along an avenue of trees. Views out from this avenue are limited by dense woodland. To the south and southwest of the castle are the remains of a small designed landscape, including a walled garden, defined garden areas and several pathways. The current setting of the castle is the knoll that it sits on and the relict gardens that surround it. The proposed Loch Hill windfarm would lie around 8km to the northeast of the castle with ten turbine hubs and the blades of a further turbine visible beyond the skyline glimpsed through the woodland surrounding the castle. The existing Wether Hill turbines are also visible in this view behind and beyond the proposed Loch Hill turbines (**Figure 7.13.2** wireframe). Views of the castle from the surrounding gardens and designed landscape would be unaffected by the proposed windfarm and the windfarm's presence in the wider landscape would not adversely affect appreciation of the site. The predicted impact on

the setting of Kenmure Castle is assessed as being of imperceptible magnitude and of negligible significance.

12.113. Braidenoch Hill, cross slabs (1105) comprises two stone slabs bearing incised crosses which lie to the south of the summit of Bardenoch Hill and next to the route of an old bridle path. The bridle path, which was originally used as a pilgrimage route from Strathclyde to Whithorn, forms part of a heritage trail promoted by Carsphairn Heritage Group. The cross-slabs lie in open heather moorland and may have been placed as waymarkers along the route. The proposed Loch Hill windfarm would be around 11km to the east of the site and seen in the distance, against the backdrop of Knockman Hill and the hills beyond (**Figure 12.5**). Although there are open views from Braidenoch to the Loch Hill windfarm, at this distance the turbines will be barely visible in the surrounding landscape and would not affect the setting of the cross-slabs, which can only really be appreciated at close quarters. The predicted impact on the setting of the cross slabs is assessed as being of imperceptible magnitude and of negligible significance.

12.114. The ruins of the late 16th to early 17th century Earlstoun Castle (1118), also a Category A Listed Building (HBNum 3624), are set down in the river valley of the Water of Ken, lying on the eastern banks of the river. The ZTV predicts that there would be no view of the proposed windfarm from the castle itself or from its immediate surroundings. Views of the castle and its surrounding landscape are however gained from the west, from the A713 public road that runs parallel with the Water of Ken and which lies at a higher elevation than the castle ruins. Seven blade tips of the proposed Loch Hill windfarm would be partially visible in views, looking east from the A713 (**Figure 12.6**), albeit in the distance and beyond the skyline. However, intervening commercial forestry (Carseglass Hill) would screen the majority of the turbines. It is considered that the proposed windfarm would not affect the views gained of the castle and its setting from the A713. The predicted impact is assessed as being of an imperceptible magnitude and of negligible significance.

Other Scheduled Monuments

12.115. There are six further Scheduled Monuments within 15km of the proposed Loch Hill windfarm that are predicted by the ZTV to have views of the proposed windfarm. Five of these: Holme of Daltallochan stone circle and standing stone (1029); Little Duchrae Fort (1077); Holme of Daltallochan cross slabs (1106); Craigengillan Cairn (2238) and Woodhead Lead mines and smelter (5184) lie over 10km from the proposed windfarm. The majority lie in areas that have been developed (for instance Craigengillan Cairn is surrounded entirely by commercial forestry plantation) and their settings have undergone some modification. At more than 10km distant the proposed windfarm would not be prominently visible in the wider landscape and it is considered that its presence would not affect the appreciation of these sites nor have a significant impact on their current settings. In each case the predicted impact is assessed as being of imperceptible magnitude and negligible significance.

12.116. Dalarran Holme standing stone (1018) lies just over 5km to the southwest of the proposed windfarm. The standing stone is sited on the eastern banks of the Water of Ken within an improved pasture field and just west of the A713. The ZTV predicts that only six Loch Hill turbines will be visible from the site, the closest lying 5.2km away. The main views from the standing stone are concentrated down the river valley to the north and south. Views to the northeast, in the direction of the proposed Loch Hill windfarm, are limited by intervening topography. The predicted impact of the proposed Loch Hill windfarm on the setting of the standing stone is considered to be of imperceptible magnitude resulting in a negligible significance.

Non-Statutory Registered Sites (NSR Sites)

- 12.117. Two sites, Carseglass settlement (MDG3866) and Mackilston Cairn(s) (MDG3865), are both designated NSR sites within the Dumfries and Galloway HER and are potentially of national importance (sites on the non-statutory register are considered to be possibly worthy of scheduling). Both are situated to the northwest of the proposed Loch Hill windfarm, Carseglass settlement (MDG3866) lies around 3km from the proposed windfarm and Mackilston Cairn(s) lies about 5km distant. Both sites lie in open rough pasture that has undergone very little modification, and both have open views in all directions to the surrounding landscape.
- 12.118. Mackilston Cairn(s) (MDG3865) lies on the southwestern slopes of Mackilston Hill. The main views from the cairn(s) appear to be concentrated down the unnamed river valley that they sit in and which runs northeast to southwest. There are open views from the cairn(s) to the surrounding landscape and in the direction of the proposed windfarm, although large swathes of intervening commercial forestry plantation (Carseglass Hill) and intervening rises in topography would limit the visibility of the proposed Loch Hill windfarm. The impact on the setting of the cairn(s) is considered to be of imperceptible magnitude and of negligible significance.
- 12.119. The probable prehistoric ruins of Carseglass settlement (MDG3866) are situated on the summit of a small hillock in an area of open rough pasture moorland to the north of the proposed windfarm. There are open views from the site in all directions to the surrounding landscape, particularly down the Lochinvar Valley to the southeast and to the proposed windfarm. The nearest Loch Hill turbine would be around 3km away and the ZTV predicts that all eleven turbines will be visible. Nevertheless, views to the proposed windfarm will be limited by the presence of large swathes of intervening commercial forestry plantation that are present to the southeast around Lochinvar Reservoir. Although the proposed Loch Hill turbines will be new elements on the skyline and visible from the site it is considered that these will not be detrimental to an appreciation of the site nor would they be prominent features in the views to the surrounding landscape. The predicted impact is of low magnitude and of minor significance.

Listed Buildings

- 12.120. Category A Listed Barscobe Castle (3310) lies just over 3km to the south of the proposed windfarm. The castle, which was built in 1648, was extensively restored in the 1970s and is now a private home. The castle is situated in parkland that forms part of Barscobe Castle Non-Inventory Garden and Designed Landscape (discussed below) and is surrounded by scattered woodland. The castle is one of several historical buildings, including Barscobe House, within the historic estate. The proposed Loch Hill windfarm would lie to the north of the castle and the nearest turbine would be 3.2km away (**Figure 12.7**). A rise in topography to the north of the castle (Knockman Hill) would limit visibility of the proposed Loch Hill turbines; the windfarm being seen principally as a low row of five turbine hubs and five blade tips spread along the skyline. Although the proposed turbines would be visible from the property, the proposed windfarm would not affect the immediate setting of the castle, nor detract from an appreciation of views of the castle from the surrounding grounds. It is therefore judged that the impact of the proposed windfarm on the setting of the castle would be of imperceptible magnitude and of negligible significance.

Other Listed Buildings

- 12.121. There are three additional Category A Listed Buildings, thirty Category B Listed Buildings and nine Category C(S) Listed buildings within 15km of the proposed Loch Hill windfarm that are predicted by the ZTV to have theoretical views of the proposed wind turbines. The majority of these listed buildings lie within the village of New Galloway and are constituents of the Conservation Area. They all lie in the enclosed setting of the village; concentrated principally along the main high street and do not have extensive views out to the surrounding areas (discussed in detail below). In each case the predicted impact is assessed as being of imperceptible magnitude and negligible significance.
- 12.122. Within 15km of the windfarm there are a total of seven listed bridges, including: Category A Listed Ken Bridge (3316); four category B Listed Bridges, Halfmark Bridge (3626), Polharrow Bridge (9750), Hensol Bridge (9742) and Shankfoot Bridge (10317); and one Category C(S) Listed Bridges, Coom Bridge (9724).. All but one of the bridges lie over 5km from the proposed wind turbines. Views from the bridges are concentrated down the river valleys in which they sit and none have extensive views of the proposed Loch Hill windfarm. It is assessed that the impact of the proposed windfarm on these sites would be neutral in character and of imperceptible magnitude resulting in effects of negligible significance. The closest bridge, Category B Listed, Halfmark Bridge (3626) lies within 1.5km to the southwest of the proposed windfarm and would have views of nine Loch Hill turbines. The bridge is set down in the river valley and the main views concentrated out along the narrow river valley to the northeast and southwest. The proposed windfarm would be visible in views to the northwest in surrounding rough pasture farmland. A low magnitude impact is predicted, resulting in an effect of minor significance.
- 12.123. The remaining listed buildings are principally historical farm buildings and small country houses which sit in small designed landscapes. These include: Category B Listed Knocknalling House (9717) and the associated Category A Listed Knocknalling Barn (9746) and Category B Listed stableyard (9718) that all form part of the Knocknalling NIDL; Category B Listed Glenlee House (9737) and associated steading (9739), bridge (9738), urb and pedestal (9740), sarcophagus (9741) all of which are Category B Listed and form part of Glenlee Park NIDL; Category B Listed Old Garroch (9748) which lies in the Garroch NIDL; Category B Listed Holm House (3313) and associated lodge (3312) and gatepiers (3313) all within Holme NIDL; Category B Listed farmhouses, Barles (3676) and Holm of Daltailloch (3681); Category B Listed Forrest Lodge (9726) which forms part of the Forrest Estates; Hensol Lodge (3417) and Overton House garden building (9749) both Category B Listed, and Category C(S) Barskeoch Mains farmhouse and steading (9722). The settings of these various historic farm buildings and country houses are the groups of related farm buildings and the designed landscapes of which they are an integral part. The presence of the proposed Loch Hill windfarm would not materially affect those relationships and the character of the landscape, within which they lie, would remain unaffected. It is considered that the impacts on the settings of these buildings would be no more than of low magnitude and of no more than minor significances.
- 12.124. Category A Listed Grennan Mill (3625) is situated on the western banks of Garple Burn and surrounded by woodland. The water driven mill is considered to have a localised setting, focused on the water side and it does not have intended long views out to the surrounding landscape. The proposed Loch Hill windfarm would be present around 4km to the northeast of the mill and it is predicted that only two turbines will be visible. The presence of the proposed windfarm would not result in a discernibly change to the setting of the mill. The impact on the mill's setting would be of imperceptible magnitude and of negligible significance.

12.125. Category B Listed Glenlee Hydro Electric Power Station and associated bridge (9736) was constructed in 1934. The power station is situated on the Water of Ken and to the west of the A762. The power station is screened by woodland shelter belts whilst outward views from the power station are concentrated along the river valley to the southwest and towards St John's Town of Dalry. The proposed Loch Hill windfarm would not affect the setting of the power station. The impact is considered to be of imperceptible magnitude and of negligible significance.

12.126. Category B Balmaclellan Church and churchyard (51352) lie at the eastern end of Balmaclellan village. The church is situated on the summit of a small knoll surrounded by a kirkyard and village houses. The kirkyard is entered through a gate on the south side and the main entrance of the church is at the west end of the building. The proposed Loch Hill windfarm will not be visible from either of these locations. The church and kirkyard are surrounded by trees and there are limited views out to the surrounding landscape, the main views are concentrated on the village surrounding the church. The proposed Loch Hill windfarm will be around 4.8km to the northeast of the church and only two turbine tips are predicted by the ZTV to be visible. It is considered that the impact on the setting of the church and its kirkyard would be of an imperceptible magnitude and of negligible significance.

Conservation Areas

12.127. New Galloway Conservation Area lies over 6.8km to the southwest of the proposed windfarm. The Conservation Area includes ten Category B Listed Buildings, including New Galloway Town Hall, and ten Category C(S) Listed Buildings. The majority of these buildings are small residential cottages or buildings concentrated along and looking out onto the main high street. The village is set around a crossroad of the A712 and A762 at the head of Loch Ken. The majority of the main roads to and from the village run through narrow hill valleys which only have fleeting views out to the surrounding landscape. However, the A762 runs along the Water of Ken valley and there are some views out to the surrounding landscape and along the river valley particularly from the northern edge of the Conservation Area. The proposed Loch Hill windfarm would be visible in the far distance from the southern end of the Conservation Area, which lies at a higher altitude than the rest of the village, particularly when entering the village along the A762; and would be visible again in the far distance from the northern edge of the village. The proposed Loch Hill windfarm will not however be a prominent feature in the surrounding landscape, and it is considered that the impact on the setting of the Conservation Area as a whole be of imperceptible magnitude and of negligible significance.

Non-Inventory Designed Landscapes (NIDL)

12.128. There are seven NIDLs: Barscobe Castle, Glenlee Park, Holme, Hannaston, Garroch, Kenmure Castle, and Knocknalling, within 10km of the proposed windfarm that are predicted by the ZTV to have theoretical views of the windfarm. Non-inventory designed landscapes do not have the same attributed level of importance as Inventory status Gardens / Designed landscapes, but appear in local authority lists and are therefore considered to be of regional importance and medium sensitivity.

12.129. The closest, Barscobe Castle, lies around 3km to the south of the proposed windfarm. Barscobe NIDL includes several historical buildings such as Barscobe Castle (3310) and Barscobe House. The designed landscape is spread over an area approximately 2km sq taking in the parklands, pasture and Barscobe Hill. The area has strong connections with the Covenanter movement in the late 17th century. The Covenanters would meet at Barscobe using the Holy

Linn waterfalls as a secret meeting place to carry out illegal Conventiclers and baptisms, and it was at Barscobe that the Covenanters gathered prior to the Battle of Rullion in 1666. Today, the NIDL is used for recreational activities including walking and fishing at Barscobe Loch. The proposed Loch Hill windfarm would lie to the north of the NIDL the closest turbine being approximately 3km away (**Figure 12.7**). A rise in topography to the north (Knockman Hill) would limit views of the proposed windfarm which will principally be viewed as a small arc of turbine hubs and tips on the skyline. The setting of the designed landscape as a whole would not be affected by the proposed Loch Hill windfarm and it is considered that the impact of the proposed windfarm would be of imperceptible magnitude and of negligible significance.

12.130. Six other NIDLs are present in the wider landscape, Holme, Glenlee Park, Hannaston, Knocknalling, Garroch, and Kenmure Castle. Four of these, Holme, Glenlee Park, Knocknalling, consist principally of blocks of woodland which provide secluded settings for country houses. The others, Garroch and Kenmure, consist principally of parkland and scattered woodland surrounding the listed 'Old Garroch' house and Kenmure Castle. None appear to have any specific vistas or views outwards to the surrounding landscape and views to the proposed Loch Hill windfarm would principally be screened by woodland and intervening topography. The impacts on the settings of these NIDLs are therefore considered to be of imperceptible magnitude and of negligible significance.

Archaeological Sensitive Areas (ASA)

12.131. Two areas designated by Dumfries and Galloway Council as Archaeological Sensitive Areas (ASA): Polharrow Burn ASA and Stroanfreggan ASA, are predicted by the ZTV have theoretical views of the proposed Loch Hill windfarm. The closest, Polharrow Burn ASA, lies just over 5km (from closest boundary) to the west of the proposed Loch Hill windfarm, while Stroanfreggan ASA is situated to the north of the proposed windfarm and approximately 6.5km away (from closest boundary). Both are designated archaeologically sensitive areas as they contain rich and varied archaeological sites and features that form well-preserved relict landscapes ranging from prehistory to the medieval and pre-improvement periods. The ZTV indicates that only limited areas, principally high upland areas within both ASAs will have views of the proposed windfarm. Although the proposed Loch Hill windfarm will be visible from the ASA areas it will not be a dominant visual feature in the landscape and will not detract from the appreciation of the cultural heritage sites within the ASA, either individually or collectively, nor will it affect the relationship between the various sites within them. In both cases the impact would be of imperceptible magnitude and of negligible significance.

Non-designated Sites within the proposed windfarm area (Figures 12.8-12.10).

12.132. This assessment considers the indirect visual impact of the proposed windfarm on the immediate surrounding historical landscape as requested by the Dumfries and Galloway Council Archaeologist.

12.133. The proposed Loch Hill windfarm would lie in an area consisting principally of rough pasture moorland bounded by Lochinvar Reservoir at the north, the public road to the reservoir on the west, an area of commercial forestry along the eastern edge, and open moorland running down to the A713 at the southern side. There are open views across the proposed windfarm site from the public road that runs up its western side taking in a series of low summits including Loch Hill and Corse Hill. The area is used currently as rough pasture grazing and has remained generally unmodified since the 19th century.

12.134. Two historical farmsteads are present within the proposed windfarm site. The ruins of Loch House farmstead(34) now survives only as poorly preserved earthwork remains, at the northern edge of the proposed windfarm immediately east of Lochinvar Dam. Duchrae Farm (73) is of mid-18th century or earlier origin and is currently a working farm. There is no intervisibility between the two farms due to intervening topography. Duchrae Farm and its steading are visible from the public road to the reservoir; however, the remains of Loch House farmstead are not.

12.135. There are several mid-late 19th century sheep management structures, including sheepfolds, sheep shelters and hay-rees surviving in varying condition throughout the proposed windfarm site (**Figure 12.1**). A small number of late 19th century farming structures are visible from the reservoir public road, although most of the surviving structures cannot be easily discerned in the wider landscape. Further fragmentary remains, principally field banks and occasional areas of relict rig and furrow, of possible medieval date, are present at Loch Hill, and on Mark Hill, at the southern end of the proposed windfarm. Although the area contains probably related medieval or later agricultural settlement and associated farming features, overall the surviving remains within the proposed windfarm site are extremely fragmentary and poorly preserved and cannot be appreciated as a whole in the landscape.

12.136. The proposed turbines would occupy the higher ground (between 220m and 300m AOD) at Corse Hill and Loch Hill, and would be set well back from the lower lying former settlement remains at Loch Hill and Duchrae (**Figures 12.8 - 12.9**). The closest turbine to Loch House (34) would lie 400m from the poorly-preserved and denuded farm building remains (**Figure 12.8**), and the closest turbine to Duchrae Farm (73) would lie over 700m away remains (**Figure 12.9**). The proposed windfarm would not affect the integrity of either site nor detract from their appreciation. The sites are of local heritage importance and of low sensitivity. Their settings make a moderate contribution to their understanding and appreciation and the impact on their settings would be of medium magnitude and of no more than minor significance.

12.137. At the request of the Dumfries and Galloway Council Archaeologist a wireframe visualisation is presented (**Figure 12.10**) which shows the visibility of the proposed turbines from the Lochinvar Commemorative Cairn (45). The cairn commemorates the construction of the reservoir and the flooding of the ruins of the former Lochinvar Castle and is partly constructed of stones from the castle ruins; it stands just above the minor road at its junction with the track to the dam. The cairn is of lesser cultural heritage significance and its setting is of negligible sensitivity in terms of its cultural heritage value, although it does have views of the Loch and the surrounding landscape. The impact on the setting of the cairn would be of no more than minor significance.

Residual Impacts

12.138. The proposed windfarm would not have a significant residual effect on the setting of key cultural heritage assets within the wider landscape.

CUMULATIVE IMPACT ASSESSMENT

12.139. Cumulative impacts on the cultural heritage resource from changes to the baseline setting of the resource caused by the proposed windfarm in conjunction with other developments that occurred in the past, present or are likely to occur in the foreseeable future (see Landscape Institute 2002, 85).

12.140. The visual influence of the proposed windfarm at Loch Hill on cultural heritage receptors is predominantly to the west and south, in an arc running from Polharrow ASA in the west to New Galloway Conservation Area in the south (**Figure 12.2 and 12.11**).

12.141. A cumulative ZTV (based on maximum blade tip height) is presented in Chapter 7: Landscape and Visual Amenity (**Figure 7.23**) which shows that there are 16 proposed developments within a 35km study area around the Loch Hill proposal. **Figure 12.11** shows the Loch Hill windfarm, with other nearby operational or proposed windfarms and those key cultural heritage receptors within 15km of that are predicted to have views of the Loch Hill proposal. A list of those external receptors within 15km of the proposed Loch Hill windfarm and predicted by the Loch Hill ZTV to have theoretical views of one or more turbines is provided as **Appendix 12.3**, with a final column listing the number of other proposed windfarms (within the 35km study area around Loch Hill) potentially visible from each site. Eleven sites would have no views of any additional windfarms and would therefore not have a cumulative impact on their setting.

12.142. In terms of the cultural heritage receptors affected by the Loch Hill windfarm the most significant cumulative developments would be those proposed at Knockman Hill, Margree and Blackcraig Hill, all of which lie within 5km of Loch Hill. The proposed windfarms at Loch Hill and Knockman Hill are adjacent to each other and would appear as one group of 16 turbines in views from the wider landscape, although the wind turbines at Knockman Hill would be smaller in height (81m to tip) than those proposed at Loch Hill (110m). The windfarms at Magree and Blackcraig would be seen in the background, beyond the Loch Hill proposal, in views from the cultural heritage receptors to the south and west (**Figure 12.11**).

12.143. Of the sites accepted by Historic Scotland and Dumfries and Galloway Council as viewpoints (**Table 12.2**) to be assessed for impacts on their settings, two - Balmaclellan Motte (1109) and Dalry Motte (1117) - would have no cumulative impacts. The other sites are all predicted by the cumulative ZTV (**Figure 12.11**) to have views of Loch Hill together with between one and three additional windfarms.

12.144. Cumulative visualisations from four cultural heritage receptors in the wider landscape and at varying distances from Loch Hill (**Figures 12.12-12.14** and LVIA photomontages and wireframes: **Chapter 7: Figures 7.0, 7.7, 7.13 & 7.31**) show the predicted visual cumulative impacts of the proposed windfarm at Loch Hill in conjunction with the other proposed windfarms (Knockman Hill, Margree, Blackcraig Hill). These sites were chosen as viewpoints in order to show the cumulative impacts on cultural heritage receptors where there would be visibility of the Loch Hill windfarm together with the other nearby proposed windfarms at Knockman Hill, Magree, Blackcraig and Wether Hill. From these receptors various combinations of the five windfarms would be seen in the same view. One other site (the White Cairn scheduled monument (1047)) is assessed as it lies between four of the proposed windfarms and is likely to receive a sequential cumulative impact (with windfarms close by in all directions) if all proposals were to be consented.

White Cairn (1047)

12.145. White Cairn, burial cairn lies within 1.4 km of the Loch Hill windfarm. Views to the northwest from the cairn would include Loch Hill (see LVIA Photomontage: **Chapter 7: Figure 7.7**) and the proposed windfarm at Knockman Hill. In addition, the windfarms at Margree and Blackcraig Hill would be visible, to the north and southwest respectively.

12.146. It is predicted by this assessment that the proposed Loch Hill windfarm would have an impact of minor significance on the setting of the cairn. The Margree Windfarm ES^{ix} predicts an impact of moderate significance on the setting of the cairn, arising from the Margree windfarm turbines and the proposed access track, which would pass within 200m of the cairn. The Blackcraig Windfarm ES^x predicts no impact on the setting of the cairn (although it seems probable that the turbines of Blackcraig would be visible from the site).

12.147. White Cairn lies within 2km of each of the proposed windfarms and the turbines of the Knockman Hill development would be the closest to the site and the most visually prominent. The Loch Hill turbines would be partly screened by the summit of Knockman Hill with up to five blade tips predicted to be visible from the site, although this would vary according to the viewpoint (see see LVIA Photomontage: **Chapter 7: Figure 7.7**). If all four proposed nearby windfarms were to be consented, all would be at least partly visible from the site of the cairn but would be partly screened by surrounding forestry that encroaches close to the cairn. The current forestry to the north and west of the cairn limits views out from and to the cairn to those obtained to and from the southwest and from the south along the nearby A702 public road. Its setting is visually constrained by the topography and it is not visually prominent with wide views, being best appreciated at relatively close quarters.

12.148. There would be a cumulative impact on the setting of this monument with sequential views of turbines on the skyline in all directions, should all of the proposed windfarm developments being consented. The current setting is dominated by commercial forestry and the introduction of the windfarms would represent a material change of land-use. However, an appreciation of the monument and understanding of its social role and function would not be substantially affected. It is therefore judged that the cumulative impact would be of moderate significance and that the contribution from the Loch Hill proposal would represent the least significant of the four windfarms potentially visible.

Kenmure Castle (7743) and NIDL

12.149. Kenmure Castle, and its associated designed landscape, lies around 8km from the Loch Hill windfarm. Views to the northeast from the castle would include the Loch Hill turbines alongside the existing Whether Hill turbines and those of the proposed windfarms at Knockman Hill and Magree (**Chapter 7: Figure 7.31**), all seen in the same arc of view. The existing Windy Standard Phase 1 windfarm and those at Afton and Blackcraig Hill would also theoretically be visible, at varying distances and in varying degrees (**Figure 7.31**), although reference to the photomontage from Kenmure (**Chapter 7: Figure 7.13**) indicates that surrounding vegetation would screen views towards Windy Standard and Afton.

12.150. The Loch Hill windfarm would appear alongside any combination with Wether Hill, Knockman Hill and Magree as one group within the same arc of view with the Loch Hill and Knockman Hill developments being the nearest. The Blackcraig proposal would be visible separately but at a similar distance to the Loch Hill site, while the Windy Standard and Afton sites would be visible in the far distance.

12.151. There would be a cumulative impact on the setting of Kenmure Castle, should all of the proposed windfarm developments be consented, but it is considered that that impact would be of minor significance with only a minor contribution being from the Loch Hill proposal.

Polmaddy medieval and post-medieval settlement (5391)

12.152. The remains of Polmaddy medieval and post-medieval settlement (5391) lie around 7.7km to the northwest of the proposed Loch Hill windfarm. Views to the east and southeast from the site would theoretically include the existing Wether Hill windfarm (to the east) and the Loch Hill development together with those of Knockman Hill and Blackcraig, to the southeast, (**Figure 12.12**). The Loch Hill windfarm would be seen in the same arc of view as the Knockman Hill and Blackcraig sites as a single group, while the Wether Hill windfarm stands visually separated from the others. In the view to the southeast the Loch Hill development would be the nearest of the three visible options and Blackcraig the furthest away.

12.153. The township remains lie within a clearing within a large commercial forestry plantation, which constitutes its current setting, and views outwards are constrained by the forestry which lies to the east south and southeast. It is likely that, whilst it stands, this forestry would screen out views of any of the proposed developments and it is judged that there would be no cumulative impact on the setting of the site. If the forestry were to be removed then there would be a cumulative visual impact if all three windfarm proposals to the southeast were to proceed. However, it is judged that the cumulative impact would be of negligible significance and that the contribution from the Loch Hill proposal would be minimal.

Braidnoch Hill (1105)

12.154. Braidnoch Hill cross slabs lie around 11km from the proposed Loch Hill windfarm. The cumulative wireframe (**Figure 12.13**) indicates that the Loch Hill windfarm would be visible together with those at Margree, Blackcraig Hill and Knockman Hill; all (or any combination) being seen in the same arc of view. If all four proposed nearby windfarms were to be consented, all would be at least partly visible and seen as a single group, the Blackcraig development being that which unites the various developments. If Blackcraig were not to be consented then the Loch Hill and Knockman Hill developments would stand, individually or collectively, separate from the Magree proposal.

12.155. There would be a cumulative impact on the setting of the Braidnoch Hill cross slabs, should all of the proposed windfarm developments potentially visible from that location be consented, but it is considered that that impact would be of minor significance with only a minor contribution being from the Loch Hill proposal.

Barscobe Castle (3310) and NIDL

12.156. Barscobe Castle (3310), and associated designed landscape, lies within 3km of the proposed turbines at Loch Hill. The cumulative wireframe (**Figure 12.14**) indicates that, along with the Loch Hill windfarm, turbines from both Blackcraig Hill and Knockman Hill would be visible. If all three windfarms were to be consented all would be partially visible from the castle; Loch Hill and Knockman Hill turbines would be visible as one group of turbines visible to the north, while the Blackcraig Hill turbines would be visible as a separate element in the landscape to the northeast. However, scattered woodland within the surrounding parkland would screen views to some degree, dependent upon the viewpoint.

12.157. There would be a cumulative impact on the setting of the Barscobe Castle, should all of three of the proposed windfarm developments visible from that location be consented, but it is considered that that impact would be of minor significance with only a minor contribution being from the Loch Hill proposal.

Stroanfreggan ASA

12.158. Stroanfreggan ASA lies between two groups of proposed windfarms (**Figure 12.2**). The Cumulative ZTV for Loch Hill indicates that, in addition to the Loch Hill proposal, between four and six other proposed windfarms could theoretically be visible from limited locations within the ASA. From most locations only the existing Wether Hill windfarm would be visible and it is considered that, in general, the cumulative impact on the setting of the ASA would be of negligible significance.

FURTHER SURVEY REQUIREMENTS AND MONITORING

12.159. An archaeological Clerk of Works will be appointed to undertake monitoring works in sensitive areas, identified in consultation with the Dumfries and Galloway Council Archaeologist.

Summary of Impacts

12.160. **Table 12.11** below summarises the predicted significant impacts of the windfarm on cultural heritage assets.

12.161. Direct impacts have been predicted for four cultural heritage sites within the proposed windfarm site. These features are associated with the local historical farming landscape and are considered to be of no more than local historic environment interest and of low sensitivity.

12.162. No significant indirect visual impacts are predicted on key cultural heritage receptors within 15km of the proposed windfarm.

12.163. No significant indirect cumulative visual impacts are predicted on key cultural heritage sites from the Loch Hill windfarm and proposed windfarms within 15km of the Loch Hill windfarm, and the contribution to the cumulative impact from the proposed Loch Hill windfarm would be minimal.

Table 12.11: Summary of Predicted Significant Impacts

Predicted Impact	Significance	Mitigation	Significance of Residual Impact
Construction			
A section of field bank (55) would be crossed by the proposed access track and cable trench from Duchrae Farm to Turbine 2.	A direct impact of negligible significance.	Disturbance to the field bank where it is crossed by the access track and cable trenches will be kept to a minimum. Sample excavation of the field bank remains where they would be crossed by the proposed access track and cable trenches.	No significant residual effect.

Predicted Impact	Significance	Mitigation	Significance of Residual Impact
A small area of relict rig and furrow cultivation (67) would be crossed by the access tracks and cable trenches between Turbines 4, 5 & 7.	A direct impact of negligible significance.	Watching Brief of any ground breaking for the construction of access tracks and cable trenches where they cross the relict rig and furrow remains. Recording of the rig and furrow contours and recovery of any dating material (i.e. small finds, pottery) associated with the cultivation remains.	No significant residual effect.
The site of a former building (71) would be crossed by the proposed access track and cable trenches from Duchrae Farm to Turbines 2.	Direct impact of unknown, but no more than moderate, significance.	Watching Brief of any ground breaking for the construction of access tracks and cable trenches where they pass the former site of the building. Recording of any surviving buried remains of the building and / or associated features.	No significant residual effect.
The site of two former wells (72) would lie in an area designated for a borrow pit search area. Any ground breaking works in this area may disturb any buried remains that may survive.	Direct impact of unknown, but no more than minor, significance.	Watching Brief of any ground breaking in the Borrow Pit Search Area 1 in the area of the former wells. Recording of any surviving buried remains of the wells and / or associated features.	No significant residual effect.
Ground-disturbing excavations associated with construction works could have a direct	Likelihood of encountering remains of archaeological significance is considered to be	Production of construction guidelines to be issued to all contractors	No significant residual effect.

Predicted Impact	Significance	Mitigation	Significance of Residual Impact
impact on any unrecorded buried archaeological remains that survive in the affected areas.	moderate.	containing arrangements for calling upon professional archaeologist in the event that buried archaeological remains should be discovered in areas not subject to archaeological monitoring. Any buried remains or finds will be recorded.	
Operation			
Indirect visual impacts have been predicted for eleven Scheduled Monuments; two NSR Sites; forty-four Listed Buildings, one Conservation Area; two Archaeological Sensitive Areas and seven Non-Inventory Designed Landscapes.	Indirect visual impacts of no more than minor significance.	No mitigation is required.	No significant residual effect.
Cumulative			
Cumulative visual impacts have been predicted for fourteen Scheduled Monuments; two NSR sites; thirty-two Listed Buildings; one Conservation Area; two Archaeologically Sensitive Areas and seven Non-Inventory Designed Landscapes.	The contribution to the cumulative impact from the Loch Hill windfarm would be minimal.	No mitigation is required.	No significant residual effect.

ⁱ Institute for Archaeologists (IfA) (2010) 'By-Laws: Code of Conduct'. Institute for Archaeologists.

ⁱⁱ Institute for Archaeologists (IfA) (2008); 'Standard and guidance for archaeological desk-based assessment'. Institute for Archaeologists.

ⁱⁱⁱ Hastie (2008) Duchrae Farm, St John's Town of Dalry, Proposed Forestry Scheme Archaeological Appraisal Report No 1540, CFA Archaeology Ltd.

^{iv} International Council on Monuments and Sites (2005) Xi'an Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas, adopted in Xi'an, China by the 15th General Assembly of ICOMOS (2005).

^v Historic Scotland (2009) Assessment of Impact on the Setting of the Historic Environment Resource – Some General Considerations, Scoping of Development Proposals, Annex.

^{vi} Historic Scotland (2009) Assessment of Impact on the Setting of the Historic Environment Resource – Some General Considerations, Scoping of Development Proposals, Annex

^{vii} McKeague, P 1991a Rapid Survey of Archaeological Sites within the Stewarty of Kirkcudbright Environmentally Sensitive Area, CFA Ltd unpublished client report, no 25.

^{viii} Hastie (2008) Duchrae Farm, St John's Town of Dalry, Proposed Forestry Scheme Archaeological Appraisal Report No 1540, CFA Archaeology Ltd.

^{ix} Margree Windfarm, Environmental Statement, Chapter 10: Cultural Heritage

^x Blackcraig Hill Windfarm, Environmental Statement, Part 1: The Wind Farm, Chapter 8: Archaeology and Cultural Heritage

APPENDIX 121.1: Cultural Heritage Features within the Proposed Windfarm Site

Ref no.	Site name and type	NMRS / SMR no.	Easting	Northing	Source	Description	Sensitivity	Impact Type	Magnitude of Impact	Significance of Impact
32	Lochinvar, field boundary		265848	584871	Field survey	Field survey recorded the remains of a denuded stone and turf bank running from NX 265854 84887 to NX 65842 84856. The bank is visible primarily as a change in vegetation colour with occasional stone boulders visible through the turf. It is aligned NNE to SSW and skirts around the base of a grassy knoll at the S end of Lochinvar Reservoir. The bank measures c. 50m long, 1-1.5m wide and is 0.2m high (max).	Low	None	None	None
33	Lochinvar, dam, valve house	NX68NE 35.01	26618	58512	NMRS; APs; Field survey	The NMRS records the presence of a dam running from NX 66186 85126 to NX 65935 84900. Lochinvar Dam is visible on aerial photographs (1975 & 1988). Field survey recorded a concrete dam at the SW end of Lochinvar Reservoir measuring 350m long and c.5m high. A valve house comprising a small rectangular concrete one-storey building is present at the E end of the dam. The dam was constructed in 1968 to provide water to the Stewartry area.	Low	None	None	None
34 (Including 34A)	Loch House, farmstead, field system, rig and furrow	NX68NE 31 & NX68NE 12 / MDG16094 & MDG5051	26649	58521	NMRS; SMR; Documentary sources; Historical maps; APs; Field survey	The NMRS and SMR record that a farmstead, comprising one roofed, one unroofed building and one enclosure, and a field are depicted on the Ordnance Survey 1st Edition map (1854) and annotated as 'Ruin'. One unroofed building and one enclosure are shown on the 1981 edition of the OS 1:10,000 map. McKeague (1991a, site 85) recorded the presence of a farmstead consisting of a two roomed rectangular stone structure with a sheepfold attached to the rear. There is a single entrance, opening to the S, in the E room. Two small scooped areas lie to the N of the structure within a small enclosure. There are a number of field walls surrounding the farmstead and some enclosed areas of rig and furrow, to the N and S. Examination of the Ordnance Survey 1 st Edition map (1854) shows two unroofed structures annotated as 'Ruin' surrounded by at least three enclosures. A further roughly oval shaped field boundary annotated 'Old Fence' is shown to the S of Loch House. A sub-oval enclosure and field boundary are shown to the W of Loch House and annotated as 'Sheep Ree' and a further small rectangular enclosure is shown to the WSW of Loch House, annotated as 'Old Ree'. A farm comprising of a rectangular long building, a number of associated fields and rig and furrow remains are visible on the aerial photographs (1950, 1974 & 1988). Field survey recorded the ruins of a farmstead at Loch House. The farmstead comprises the remains of a long rectangular building, a sheepfold and a series of ruinous	Low	None	None	None

Ref no.	Site name and type	NMRS / SMR no.	Easting	Northing	Source	Description	Sensitivity	Impact Type	Magnitude of Impact	Significance of Impact
						<p>enclosures. A rectangular long building, aligned NW to SE, measuring 15m long and 6m wide was recorded at Loch House. The building is split into two compartments. The first compartment measures 9m long internally and the second smaller compartment measures 5m internally. The building walls are very tumbled measuring at maximum 0.3m high and 1m thick. The dividing wall between the two compartments measures 0.5m thick and 1m high (max). No internal features are visible. Abutting the NE side of the building are the remains of a well-preserved rectangular sheepfold measuring 14m sq. The walls of the sheepfold are 1-1.2m high and 0.5m thick. The structure is better preserved than other elements of the farmstead suggesting that this were constructed later than the farm. A small corrugated iron shelter is visible in the N corner of the structure. A drystone enclosure, measuring c.20m by 10m abuts the NE corner of the sheepfold. Two small rectangular tumbled structures are cut into a natural mound abutting the NW side of the enclosure at NX 66499 85245 and NX 66498 85243. Each measure 3m by 2m, and are 2m deep. These structures may be poorly preserved corn drying kilns or possible lime kilns. Two isolated clearance cairns lie to the N and NW of the farm buildings, at NX 66271 85242 and NX 66474 85285 respectively. The very denuded and tumbled remains of a drystone wall extend from the front of the long rectangular building to the W. The wall measures 0.5m wide and 0.3m high. A crescent shaped section of this wall survives measuring 1.2m high, and may have been used as a sheep shelter. Fragments of poorly preserved stone and turf bank, measuring 2m wide and 0.4m high are also present to the SW of the farm buildings. These banks appear to have originally formed a series of fields or enclosures to the SE of the farm. The remains of a small rectangular drystone enclosure (34A) are attached to the N side of one of the banks (at NX 66217 85085) and maybe the remains of a 'Old Ree' depicted on the Ordnance Survey 1st Edition map (1854). The enclosure measures c.11m long and 7m. The remains of a second possible enclosure are present to the WSW of the farm buildings (lies outwith the proposed windfarm site). The enclosure is defined by three very tumbled walls on the E bank of Lochinvar Reservoir. The wall remains appear to form a possible sub-circular enclosure centred on NX 66209 85191. The walls are c.1m wide and 0.5m high. This structure may be the remains of a 'Sheep Ree' depicted on the Ordnance Survey 1st Edition map (1854). Fragments of a stone and turf bank defining a sub-oval area of improved land, c.250m by c.170m, were visible to the S of the farm buildings. Two distinct stretches of bank are visible on the E and W sides. The first stretch (E side) runs from NX 66503 85185 to NX 66512 85038, and measures c.150m long. The second stretch (W side) runs from NX 66355 85076 for 30m. The eastern stretch of the bank is well preserved measuring 3m wide and 0.5m high.</p>				

Ref no.	Site name and type	NMRS / SMR no.	Easting	Northing	Source	Description	Sensitivity	Impact Type	Magnitude of Impact	Significance of Impact
						The second stretch of bank is visible only as a vegetation change, measuring c.3m wide and 0.2m high. The faint outline of rig and furrow are visible within the improved pasture area defined by the banks. Two distinct areas of rig were noted aligned E-W and NNE-SSW. The rig measures 2m wide, with 1m wide furrows, and 0.2m high. The bank remains appear to define a sub-oval field depicted on the Ordnance Survey 1 st Edition map (1854).				
37	Loch House, grouse butts		266750	585120	Field survey	Field survey recorded the remains of seven stone built grouse butts immediately SW of the conifer plantation at Knockdollochan and c.200m E of Loch House. Each butt consists of a small semi-circular drystone wall open to the NE and measure 2m by 1m and 0.5m high.	Low	None	None	None
38	Loch Hill, field boundary		266731	584994	Field survey	Field survey recorded the remains of a stone and turf bank running around the N side of Loch Hill. The bank is much degraded with lots of tumbled stone on its N side. The bank measures c. 400m long, 2.5m wide and is 0.5m high.	Low	None	None	None
39	Loch Hill, field boundary		26636	58454	Historical maps; Field survey	The Ordnance Survey 1 st Edition map (1854) depicts a field boundary running from the S of Loch House Farm to a sheep ree (41) c.750m NE of Duchrae Farm. Field survey recorded the remains of a denuded drystone wall following the alignment noted on the Ordnance Survey 1 st Edition map (1854). The bank measuring c. 150m long, 0.5m wide and ranges in height from 0.2m to 0.5m.	Low	None	None	None
40	Loch Hill, trackway (non-antiquity)	NX68NE 10 / MDG3825	266326	584964	NMRS; SMR; APs; Field survey	The NMRS and SMR record that a series of tracks are visible on air photographs. Field survey carried out by the Ordnance Survey in 1978 recorded a number of old paths and drainage lines of no apparent archaeological significance. Recent field survey recorded a series of modern drainage ditches crossing a marshy area at the location previously recorded by the NMRS and SMR. A modern track running from the public road to a valve house (33) and a field were also noted in this area. No apparent archaeological sites were visible at the location cited in the NMRS and SMR.	Negligible	None	None	None
41	Loch House, foot bridge		26620	58500	Historical maps	The location of a footbridge crossing an unnamed burn to the SW of Loch House is depicted on the Ordnance Survey 1 st Edition map (1854). Field survey recorded no surveying remains of the footbridge as shown on the Ordnance Survey 1 st Edition map (1854).	Negligible	None	None	None
42	Loch House, field boundary, structure	NX68SE 42 / MDG16104	266156	584897	NMRS; SMR; Historical maps; Field survey	The NMRS and SMR record that one unroofed structure and a length of field wall annotated 'Old Fence' are depicted on the Ordnance Survey 1 st Edition map (1854). One unroofed structure is shown on the 1982 edition of the OS 1:10,000 map. Examination of the Ordnance Survey 1 st Edition map (1854)	Low	None	None	None

Ref no.	Site name and type	NMRS / SMR no.	Easting	Northing	Source	Description	Sensitivity	Impact Type	Magnitude of Impact	Significance of Impact
						<p>shows a small rectangular enclosure built to the SW edge of a field boundary that runs from the southern end of Lochinvar Loch to Loch Hill. A further field boundary, annotated as 'Old Fence' is shown running around the SE side of the enclosure and terminating at an unnamed burn.</p> <p>Field survey recorded the poorly preserved remains of a small rectangular enclosure at NX 66156 84897. The enclosure measures 8m by 4m internally and is aligned NE to SW. Only the basal course of the enclosure survives measuring 0.2-0.3m high and 1m thick. No internal features or entrances are visible. The enclosure abuts the remains of a rubble built wall on its NE side. The wall runs from NX 66142 84908 to NX 66207 584866, all that survives is the basal course c.75m long, 0.8m thick and 0.5m high (max). A denuded stone and turf bank is visible running from the SE side of the enclosure for c.15m then turning to the S for a further c.120m before terminating at an unnamed burn. The bank measures 2m wide and is 0.3m high, and defines an area of improved pasture c.20m sq,</p>				
43	Lochinvar, corn stack platform (possible)		265999	584816	Field survey	Field survey recorded what may be the remains of a corn stack platform (or ruck foun) in an area of improved pasture immediately S of Lochinvar Reservoir. The structure, which is turfed over, comprises a raised circular flat stone platform measuring c.10m in diameter and 0.5m high.	Low	None	None	None
45	Lochinvar, commemorative cairn		2657	5846	1981 OS; Field survey	<p>A cairn is depicted on the 1981 OS map c.300m S of Lochinvar Lodge.</p> <p>Field survey recorded that the cairn is a modern feature, which commemorates the construction of Lochinvar dam in 1968. A plaque on the cairn is inscribed 'Lochinvar, level raised 1968. An island, now submerged, was the site of a ruin, the stones from which have been built into this cairn'.</p>	Negligible	None	None	None
46	Lochinvar Burn, structure	NX68SE 43 / MDG16105	266094	584590	NMRS; SMR; Historical maps; APs; Field survey	<p>The NMRS and SMR record that one unroofed structure annotated 'Hay Ree' is depicted on the Ordnance Survey 1st Edition map (1854) and on the 1982 edition of the OS 1:10,000.</p> <p>A small rectangular structure is visible on aerial photographs dating from 1950 and 1975.</p> <p>Field survey recorded the poorly preserved remains of a small rectangular enclosure at NX 66094 84590. The enclosure measures 8m by 5m internally and is aligned NW to SE. The wall of the enclosure survives only as a basal course measuring 0.5m high and 1m thick. No internal features or entrances were visible.</p>	Low	None	None	None
47	Half Mark Hill, foot path		26370	58320	Historical maps	A track, annotated as 'Foot Path', is shown on the Ordnance Survey 1st Edition map (1854) running from Gordonston Farmstead NX 6370 8320 to Barfadden and terminating at a sheepfold (24) at NX 6529 8417. The track is then shown again just S of Lochinvar running from the public road to the farmstead at Loch House (34) NX 26648 58522 and	Negligible	None	None	None

Ref no.	Site name and type	NMRS / SMR no.	Easting	Northing	Source	Description	Sensitivity	Impact Type	Magnitude of Impact	Significance of Impact
						<p>continuing outside the development area until finally terminating at Knocksting Farmstead c.3.5km from the development area.</p> <p>Field survey did not identify any surviving trace of the footpath.</p>				
48	Lochinvar Burn, field boundary	NX68SE 4 & NX68SE 11 / MDG16109 & MDG11719	26576	58427	NMRS; SMR; Historical maps; APs; Documentary sources; Historical maps; Field survey	<p>The NMRS and SMR record that two lengths of what may be the same field wall, each annotated 'Old Fence', are depicted on the Ordnance Survey 1st Edition map (1854), but it is not shown on the 1982 edition of the OS 1:10,000 map.</p> <p>McKeague (1991a, site 93) records that a low earthwork lies E of the modern road. It survives in two distinct stretches and is possibly a former roadside bank except that it follows a rather irregular course in places and diverges from the road towards the N.</p> <p>Examination of the Ordnance Survey 1st Edition map (1854) shows two field boundaries running down the E side of the Lochinvar public road. Each field boundary is annotated as 'Old Fence'.</p> <p>A sinuous field boundary running down the E side of Lochinvar Lodge public road is visible on aerial photographs (1950 & 1975).</p> <p>Field survey recorded the remains of a sinuous stone and turf bank running down the E side of the public road. The bank survives in two distinct stretches, the first running from NX 65861 84468 to NX 65825 84419 and the second from NX 65725 84221 to NX 65721 84185. Both bank fragments measure 3m wide and 0.5-0.6m high. An area of improved pasture is present to the E of the bank and the very faint outline of rig and furrow cultivation is visible (52).</p> <p>The fragmentary bank remains follow the general alignment of field boundaries depicted on the Ordnance Survey 1st Edition map. The map, however, indicates that the field system is more extensive than recorded during the field system.</p>	Low	None	None	None
49	Lochinvar, enclosure		266236	584445	Historical maps; APs; Field survey	<p>The Ordnance Survey 1st Edition map (1854) shows a rectangular enclosure, annotated as 'Sheep Ree'.</p> <p>A rectangular enclosure is visible on aerial photographs (1950 & 1975).</p> <p>Field survey recorded the remains of a small rectangular enclosure at NX 66236 84445 in an area of dense bracken. The enclosure measures c.14m by 10m and is aligned approximately N-S. The walls are of drystone construction and range in height from 0.4m to 1m high, and are 0.5m to 1m thick.</p>	Low	None	None	None
50	Lochinvar, old		26595	58440	Historical maps	The Ordnance Survey 1st Edition map (1854) depicts an old	Negligible	None	None	None

Ref no.	Site name and type	NMRS / SMR no.	Easting	Northing	Source	Description	Sensitivity	Impact Type	Magnitude of Impact	Significance of Impact
	gravel pit					gravel pit. Field survey did not detect any trace of the gravel pit depicted on the Ordnance Survey 1 st Edition map (1854). The area is extremely wet and marshy and modern ground breaking in the area, possibly to aid water drainage, has most likely destroyed the quarry.				
51	Duchrae, sheep shelter		266025	584305	Historical maps; Fields survey	A crescent shaped sheep shelter is depicted on the Ordnance Survey 2 nd Edition map (1895) NE of Duchrae Farm. Field survey recorded the remains of a crescent shaped sheep shelter in an area of rough pasture c. 900m NE of Duchrae Farm. It is open to the N and measures approximately 50m long, 1.2m high and 0.5m wide.	Low	None	None	None
52	Lochinvar Burn, rig and furrow, possible kiln	NX68SE 12 / MDG11720	265752	584207	NMRS; SMR; Documentary sources; Field survey	The NMRS and SMR record that there is an area of rig on the W side of Lochinvar Burn. McKeague (1991a, site 94) recorded an area of rig and furrow at NX 6590 8430, running NW to SE, lying on a rise above the W bank of Lochinvar burn. A discrete scooped area was also visible set into the hillside to the SW of the cultivation remains and this is suggested as the possible site of a corn-drying kiln. Field survey did not identify any rig and furrow remains or a possible corn-drying kiln at the location previously recorded by McKeague (1991a). This area was extremely wet and marshy. An area of very faint rig and furrow was, however visible on an improved pasture knoll, c. 100m to the S centred on NX 65752 84207 (48). The rig was aligned NW to SE and spread over an area measuring c.150m sq.	Low	None	None	None
53	Duchrae, quarry		265768	584252	Field survey	Field survey recorded a small irregular shaped quarry measuring 10m long, 8m wide and 0.5m deep. It is located on the N edge of a grassy knoll c.750m N of Duchrae farm and c.50m from the Lochinvar Reservoir public road. Its close proximity to the road suggests that it may have supplied stone for the construction and maintenance of the road although the quarry is not shown on the Ordnance Survey 1st Edition map (1854).	Negligible	None	None	None
54	Lochinvar Burn, enclosure	NX68SE 44 / MDG16106	26570	58395	NMRS; SMR; Historical maps; Field survey	The NMRS and SMR record that an unroofed structure annotated 'Hay Ree' is depicted on the Ordnance Survey 1st edition map (1854). A sheepfold is shown on the 1982 edition of the OS 1:10,000 map. Field survey did not identify the 'Hay Ree' shown on the Ordnance Survey Edition map. The structure appears to have been replaced by a large sheepfold comprising of a main drystone constructed rectangular enclosure, aligned NE to SE, and three modern post and wire fence enclosures on the E side. Overall the sheepfold measures 55m by 45m, with the drystone enclosure measuring 55m by 20m. The sheepfold is in good condition and may still be in use.	Low	None	None	None
55	Duchrae,		26560	58365	Field survey	Field survey identified the remains of a stone and turf bank	Low	Direct (crossed)	Low	Negligible

Ref no.	Site name and type	NMRS / SMR no.	Easting	Northing	Source	Description	Sensitivity	Impact Type	Magnitude of Impact	Significance of Impact
	structure, field boundary					running from a marshy area c.100m S of Duchrae Farm sheepfold (54) and along the E side of an unnamed burn. Two short sections of bank are present the first runs from NX 65703 83816 to NX 65680 83794 and the second runs from NX 65612 83691 to 65608 83642. The first section measures 30m and is visible as a line of stone crossing an area of wet boggy ground and measures c.1m wide and 0.2m high. The second section, running down the E side of the burn, is better preserved and survives as a stone and turf bank measuring 50m long, 3m wide and 0.4m high.		by access track to Turbine 2)		
60	Halfmark House, settlement		26550	58270	Historical maps; APs; Field survey	<p>Roy's Military Survey map (1747-55) depicts a settlement annotated 'Halfmark' as a group of buildings and associated enclosure. Rig and furrow cultivation is shown to the E of the settlement.</p> <p>Two possible enclosures and an unroofed building are depicted on the Ordnance Survey 1st Edition map (1854).</p> <p>A possible unroofed rectangular structure is visible just NW of Half Mark house on aerial photographs dating to 1950.</p> <p>Field survey did not identify any remains at the location recorded on Roy's map. The area is partially covered by a dense conifer plantation; a modern bungalow lies to SE of White Hill and a modern reservoir has been constructed to the N of White Hill. It is possible that any remains of the settlement depicted on Roy's map have been destroyed by the construction of the bungalow and the reservoir.</p>	Unknown (Low)	None	None	None
61	Duchrae, enclosure		265937	583919	APs; Fields survey	<p>A circular enclosure is visible on aerial photographs (1950 & 1975).</p> <p>Field survey recorded a circular drystone enclosure within an area of improved pasture c.500m NE of Duchrae Farm. The enclosure measures 14m in diameter, with walls 1.2-1.5m high and 0.4m thick. Two drystone walls radiate to the NE and SW sides, both measuring approximately 20m in length and 0.4m thick.</p>	Low	None	None	None
62	Lochinvar, fields, boundary bank, stone dyke footings, enclosure, well	NX68SE 15 / MDG11723	26590	58390	NMRS; SMR; Historical maps; Field survey	<p>The NMRS and SMR record that there are the remains of a stone wall running N to S with a slight return at the W end, consisting of only the basal course. It occupies a slight break of slope on the hillside to the NW of the sheepfold (87). The wall footings measure 77m long N to S and 30m long E to W, 1.5m thick and less than 0.5m high (McKeague 1991a, site 115)</p> <p>Examination of the Ordnance Survey 1st Edition map (1854) recorded a figure of 8 shaped enclosure is present c.750m NE of Duchrae Farm. A well is also shown at the corner of the enclosure.</p> <p>Field survey recorded the remains of a stone wall running from NX 65818 83982 to NX 65912 83934 measuring 120m long. It runs SE to NW for c.60m before turning to the W for a further c.60m and terminating at the Lochinvar</p>	Low	None	None	None

Ref no.	Site name and type	NMRS / SMR no.	Easting	Northing	Source	Description	Sensitivity	Impact Type	Magnitude of Impact	Significance of Impact
						Burn. The dyke comprises a single line of large boulders and is 1m wide and 0.3m high, visible through the turf. No further remains of the enclosure or well depicted on the Ordnance Survey 1 st Edition map (1854) were detected. Two large rectangular improved pasture fields defined by well preserved drystone walls have been constructed in this area probably replacing the earlier fields shown on the Ordnance Survey 1 st Edition map (1854).				
63	Loch Hil, drain (non-antiquity)	NX68SE 10 / MDG3868	26600	58400	NMRS; SMR; APs; Field survey	<p>The NMRS and SMR record that a series of possible tracks are visible on aerial photographs at NX 66 84.</p> <p>Field survey carried out by the Ordnance Survey in 1978 recorded a number of recent drainage ditches of no apparent archaeological significance.</p> <p>Recent field survey recorded a series of modern drainage ditches of no apparent archaeological significance at the location cited in the NMRS and SMR.</p>	Negligible	None	None	None
64	Knockman Burn, enclosure		26610	58395	Historical maps; APs; Field survey	<p>The Ordnance Survey 1st Edition map (1854) depicts two roughly rectangular enclosures to the NE edge of a field c.750m NE of Duchrae Farm. The enclosures are annotated as 'Sheep Ree'.</p> <p>A sub-circular enclosure is visible on aerial photographs (1950 & 1975) at this location.</p> <p>Field survey recorded a sub-circular sheepfold c.750m NE of Duchrae Farm. The enclosure measures 16m in diameter with walls 1.2m high and 0.5m wide. The sheepfold is in good condition and may still be in use. There were no visible remains of the rectangular enclosures depicted by the Ordnance Survey 1st Edition map (1854) and it appears that these enclosures have been replaced by the later sub-circular sheepfold.</p>	Low	None	None	None
65	Duchrae, clearance cairns		266232	584000	Field survey	Field survey recorded two small turf covered circular clearance cairns c. 700m NE of Duchrae Farm. The cairns lie in an area of improved pasture immediately N of a drystone dyke. The first cairn, at NX 66217 84006, is 2m in diameter and 0.3m high, the second cairn, at NX 66247 83994, measures 1m in diameter and 0.2m high.	Low	None	None	None
66	Corse Hill, field boundary	NX68SE 13 / MDG11721	26700	58400	NMRS; SMR; Documentary sources; Field survey	<p>The NMRS and SMR record that there is a field bank on level ground below the summit of Corse Hill.</p> <p>McKeague (1991a, site 109) recorded the remains of a low grassy bank crossing level ground below the summit of Corse Hill. The bank gradually becomes less distinct and fades away into a drainage ditch, it is crossed by a later NE to SW aligned stone dyke.</p> <p>Field survey recorded the very denuded remains of an earthen bank c.100m SE of the summit of Corse Hill. The bank is visible primarily as a change in vegetation colour and defined by a line of reeds. Occasional boulders are visible at the S end where a later field drain has truncated</p>	Low	None	None	None

Ref no.	Site name and type	NMRS / SMR no.	Easting	Northing	Source	Description	Sensitivity	Impact Type	Magnitude of Impact	Significance of Impact
						the bank. The bank is aligned N to S and measures c.90m long, 2m wide and 0.1-0.2m high. The N end tapers out in heather and the S end terminates at a later drainage ditch. The S end of the feature is very difficult to define and it is not clear whether the bank runs under a later drystone dyke, as previously recorded by McKeague (1991a).				
67	Lochinvar, rig and furrow		266515	584609	APs; Field survey	A possible sub-rectangular field is visible on aerial photographs (1950) at Loch Hill c.600m S of Loch House. Field survey recorded an area of very faint rig and furrow centred on NX 66515 84609. The rig, aligned E-W, measures 2m wide with 1m wide furrows.	Low	Direct (crossed by access track running between Turbines 4, 5 and 7)	Low	Negligible
68	Isle Rig, enclosure		267010	584585	Historical maps; Field survey	Examination of the Ordnance Survey 1 st Edition (1854) map shows a roughly t-shaped sheep shelter immediately S of an unnamed burn and E of Isle Rig. The sheep shelter is not shown on the Ordnance Survey 2 nd Edition map (1895). Field survey did not identify any remains of the T-shaped sheep shelter. A well-preserved D-shaped enclosure was recorded at this location and it is likely that the sheep shelter was dismantled in order to construct the enclosure. The enclosure measures c.30m long by 15m wide (max) with walls 1.2m high and 0.5m thick. Two entrances are visible, on the N and E sides.	Low	None	None	None
69	Isle Rig, field boundary		267011	584568	Field survey	Field survey recorded a section of stone and turf bank immediately S of a D-shaped enclosure (68). The bank, aligned approximately E-W, measures c.50m long, 2m wide and is 0.3m high. The bank is visible as a vegetation change running along the N side of an unnamed burn and defined by a line of reeds.	Low	None	None	None
70	Isle Rig, agricultural cropmarks (non-antiquity)	NX68SE 9 / MDG3876	26740	58440	NMRS; SMR; APs; Field survey	The NMRS and SMR record that cropmarks are visible on aerial photographs at NX 674 844. Field survey carried out by the Ordnance Survey in 1978 recorded a number of recent drainage ditches of no apparent archaeological significance. Recent field survey recorded modern drainage ditches crossing an area of marshy ground at the base of Isle Rig. As described by the Ordnance Survey. There was no evidence for cultural heritage remains in the area.	Negligible	None	None	None
71	Structure		26560	58365	Historical maps; Field survey	The Ordnance Survey 1st Edition map (1854) shows a unroofed structure, annotated as 'Ruin' immediately N of Duchrae Farm and on the E bank of an unnamed burn. Field survey did not identify any visible remains of the unroofed structure depicted on the Ordnance Survey 1st Edition map. A large quantity of stone was noted at the location but no upstanding remains and no structure area visible.	Unknown (Low)	Direct	Unknown (High)	Unknown (Moderate)
72	Duchrae, Wells		26565	58360	Historical maps	The Ordnance Survey 1st Edition map (1854) depicts two wells immediately N of Duchrae farmstead.	Unknown (Negligible)	Direct (previously	Unknown (High)	Unknown (Minor)

Ref no.	Site name and type	NMRS / SMR no.	Easting	Northing	Source	Description	Sensitivity	Impact Type	Magnitude of Impact	Significance of Impact
						Field survey did not locate either of the wells.		recorded in Burrow pit 1search area)		
73	Duchrae, Farmstead	NX68SE 40 / MDG16102	26564	58350	NMRS; SMR; Documentary sources; Historical maps; Field survey	The NMRS and SMR record that a farmstead, comprising four roofed buildings, one unroofed building annotated as 'Ruin' and three enclosures, is depicted on the Ordnance Survey 1st Edition map (1854). Three roofed buildings and six enclosures are shown on the 1981 edition Ordnance Survey 1:10,000 map.	Low	None	None	None
74	Half Mark, Field boundary, rig and furrow, boundary bank	NX68SE 18 / MDG11726	26540	58310	NMRS; SMR; Historical maps; APs; Field survey	<p>The NMRS records that a field system, annotated 'Old Fence', is depicted on the Ordnance Survey 1st Edition map (1854), but it is not shown on the 1977 edition of the OS 1:10,000 map.</p> <p>The SMR records that a series of enclosures with rig and furrow is situated beside the public road. The rig is about 4m wide and runs E to W. There are other field banks further up the hillside below a sheepfold (McKeague 1991a, site 131).</p> <p>Examination of the Ordnance Survey 1st Edition map (1854) indicates that a series of field boundaries defining at least four enclosures and ,annotated as 'Old Fences', are present at Half Mark.</p> <p>A series of small rectangular fields and associated rig and furrow remains are visible on aerial photographs (1950) in the area around Duchrae water treatment works.</p> <p>Field survey recorded the fragmentary remains of the stone and turf banks recorded on the Ordnance Survey 1st Edition map (1854) as 'Old Fences'. The surviving banks are all generally spread to 3m wide and range in height from 0.3m to 1m high. Later drainage ditches have been cut through many of the banks. The construction of the water treatment works has also removed several of the former field boundaries. Rig and furrow noted on Roy's Military Survey map (1747-55,) and aerial photographs, was not visible.</p> <p>The fragmentary bank remains follow the general alignment of field boundaries depicted on the Ordnance Survey 1st Edition map. The map, however, indicates that the field system is more extensive than recorded during the field system.</p>	Low	None	None	None
75	Half Mark, Field boundary (possible)		26566	28282	Field survey	Field survey recorded a discontinuous turf and stone bank running around the edge of an area of improved pasture S of Duchrae Farm. The bank is very denuded and is c.200m long, 1m wide and 0.2m high.	Low	None	None	None
76	Lochinvar Lodge to Milnmark Road, gravel pits, old garvel pits		26555	58300	Historical maps; APs; Field survey	<p>The Ordnance Survey 1st Edition map (1854) depicts 16 gravel pits located along the edges of the Lochinvar Lodge to Milnmark Road.</p> <p>A series of gravel pits are visible on aerial photographs (1975) along the edges of Lochinvar Lodge public road.</p>	Negligible	None	None	None

Ref no.	Site name and type	NMRS / SMR no.	Easting	Northing	Source	Description	Sensitivity	Impact Type	Magnitude of Impact	Significance of Impact
						Field survey recorded 16 old gravel pits along the edge of the public road. They were probably used during the construction and maintenance of the road. [(Highlighted on the map in blue, also see (44)].				

APPENDIX 12.2: Key Cultural Heritage Site within 15km of the Proposed Windfarm predicted to have theoretical views by the ZTV

Ref no	Site name	Status	Easting	Northing	Distance to nearest turbine (km)	No of turbines visible based on blade tip analysis	Sensitivity of Receptor	Setting	Contribution of Setting	Sensitivity of Setting	Impact Magnitude	Significance of Predicted Impact
1018	Dalarran Holm, standing stone	SM	263887	579156	5.2	6	High	Standing stone situated in an improved pasture field on the eastern banks of the Ken Water. The A713 public road runs past the site on the E side. A large electricity pylon line runs past the site on the E side of the public road.	Moderate (surrounded by improved pasture fields and closely passed by public road)	High	Imperceptible (views limited by a rise in topography to the NE)	Negligible
1029	Holm of Daltallochan, stone circle and standing stone	SM	255310	594233	14.6	9	High	The possible remains of a stone circle that has been greatly disturbed. Lies in an improved pasture field to the NW of Holm of Daltallochan Farm, and immediately W of Holm Motte. Open views all around to the surrounding improved fields and rough pasture.	Moderate (lies in an improved pasture field, immediately W of Holm of Daltallochan Farm)	High	Imperceptible (over 10km from the proposed windfarm)	Negligible
1047	White Cairn, cairn, Corriedow Bridge	SM	268136	583330	1.4	5	High	Large isolated burial cairn situated on the edge of a low promontory. Immediately W of an area of commercial conifer plantation. Approximately 200 m from the public road. The cairn sits in an area of rough moorland / scrubland. The cairn is visible in views to the NW from a road side parking area. The main views of the cairn are concentrated along the Garple Burn valley. Views out to the N, E and S are screened by a large swathe of commercial forestry plantation and views to the W are limited by a rise in topography.	Moderate (situated at edge of commercial forestry plantation, and surrounded by a large swathe of commercial forestry plantation)	High	Low (views to windfarm limited by a rise in topography and commercial forestry plantation)	Minor
1077	Little Duchrae, fort	SM	266299	569563	14.2	11	High	The well preserved remains of a probable medieval or later earthwork that is situated on the edge of the floodplain near the confluence of the Crane Lane river and the River Dee. The earthworks lie at the foot of a gentle-N facing hill slope and are surrounded by woodland.	Moderate (situated in woodland running along the banks of the Crane Lane river)	High	Imperceptible (over 14km from the proposed windfarm, views out limited by woodland)	Negligible
1105	Braidnoch Hill, cross slabs	SM	257085	590832	11.0	11	High	Two slabs bearing incised crosses lying to the S of the summit of Bardenoch Hill and close to an old bridle path. The bridle path forms part of a route promoted as a visitors walk by Dumfries and Galloway Council. The cross-slabs are surrounded by heather moorland which has partially been ploughed in advance of forestry plantation. Open views in all directions are obtained from Bardenoch Hill.	High (situated in open moorland close to the route of a old bridle path)	High	Imperceptible (over 10km from the proposed windfarm. Views not an important factor)	Negligible

Ref no	Site name	Status	Easting	Northing	Distance to nearest turbine (km)	No of turbines visible based on blade tip analysis	Sensitivity of Receptor	Setting	Contribution of Setting	Sensitivity of Setting	Impact Magnitude	Significance of Predicted Impact
1106	Holm of Daltallochan, cross slab	SM	255520	594167	14.4	9	High	A cross slab that is set on end in the garden at the side of Holm of Daltallochan Farm. The present location of the cross-slab is not its original position, the cross -slab being brought to the farmstead in the late 19th century. Forms part of the enclosed garden.	Negligible (has been brought to its present position - not in-situ)	Low	Imperceptible (within an enclosed garden setting. No views out to surrounding area. Views not important factor)	Negligible
1109	Balmaclellan Motte	SM	265246	579304	4.6	9	High	Visible as a turf covered mound situated on the SW flank of a hillside on the northern edge of Balmaclellan Village. The cairn lies in an improved pasture field. There are open views in all directions to the surrounding landscape. Balmaclellan Village is present around 100m to the S of the motte and is prominent in views in this direction.	Moderate (although the site sits in a later 19th century enclosed farm setting, an appreciation of the prominent position of the motte and scale of the site can be gained)	High	Low (Visible against skyline in panoramic views from motte)	Minor
2238	Craigengillan, cairn	SM	262696	594489	10.4	9	High	The remains of a large kerb cairn situated on the crest of moorland on the SEern slopes of Craigengillan Hill. The cairn lies within a clearing in commercial forestry plantation. Two walls have been erected on top of the cairn to form a later sheep shelter.	Negligible (within a clearing in commercial forestry)	Low	Imperceptible (views out screened by forestry plantation)	Negligible
5184	Woodhead lead mines and smelter, Carsphairn	SM	253133	593687	15.9	11	High	Mid-late 19th century mining works and 'model' village. 2.5km W of Carsphairn Village. Situated in open heather moorland on the S slopes of Garryhorn and covering an area approximately 500m sq.	High (situated in a unmodified open moorland setting, with many integral elements of the mine and associated village surviving)	High (localized)	Imperceptible (situated 15 km to the NW of the proposed development)	Negligible
5391	Polmaddy, medieval and post-medieval settlement	SM	259023	587843	7.7	11	High	Well-preserved ruins of a medieval and post-medieval township lying on the lower southern slopes of Barlae Hill and just N of the Polmaddy River. Lies in a large clearing in commercial forestry plantation. Open views to the immediate rough pasture landscape, however long distance views out are limited by commercial forestry and a rise in topography to the S.	High (although surrounded by commercial forestry the township lies in an area of rough pasture and its layout can be clearly viewed and appreciated)	High (localized)	Imperceptible (windfarm barely visible in long distant views)	Negligible

Ref no	Site name	Status	Easting	Northing	Distance to nearest turbine (km)	No of turbines visible based on blade tip analysis	Sensitivity of Receptor	Setting	Contribution of Setting	Sensitivity of Setting	Impact Magnitude	Significance of Predicted Impact
7743	Kenmure Castle	SM	263538	576412	7.9	11	High	Roofless ruin of probable early 17th century origin. Situated on the flat summit of an artificial knoll immediately W of The Lane River and at the head of Loch Ken. The knoll has been extensively landscaped probably in the 19th century. The castle lies approximately 200m to the S of Kenmure Farm. Around 200m the S a trout farm comprising of a series of large fish ponds has been constructed on the W banks of The Lane River. The castle is accessed from the W along an avenue of trees. The knoll on which the castle lies is surrounded by woodland.	High (ruins are situated within an unmodified designed landscape, good appreciation of the historical layout of the castle and the later 19th century gardens)	High	Imperceptible (limited by dense woodland surrounding castle remains)	Negligible
MDG3 865	Macilston, Cairn (NMRS Ref no: NX67NW 8)	NSR Site	261967	586804	5	11	High	The remains of two large well-preserved cairns, possible burial cairns, situated on the false crest of the SE facing slope of Mackilston Hill. The cairns lie in an area of rough pasture which is used for grazing. Open views to the S, particularly concentrated along unnamed river valley that runs NE to SW.	High (open unmodified moorland setting)	High	Imperceptible (intervening topography and forestry plantation will partially screen views to windfarm)	Negligible
MDG3 866	Carseglass, Cairn, Field Boundary, Settlement, Boundary Bank (NMRS Ref no: NX68NW 9)	NSR Site	263834	586020	3	11	High	A probable prehistoric settlement comprised of a stone wall enclosure, hut circle, two possible hut platforms and an area of clearance cairns. Situated on the summit of a small hillock within an area of rough pasture moorland. Open views in all directions to the surrounding landscape.	High (settlement remains in open rough pasture moorland that has undergone little modification)	High (localized)	Low (partially screened by intervening forestry plantation)	Minor
3310	Barscobe Castle	Category A Listed	265967	580640	3.2	10	High	Mid 17th century lairds house (tower house). Extensively restored in the 1970's. A modern byre attached to the site of the house has been converted into a garage. Lies at the centre of Barscobe Farm and surrounded by modern farm buildings. Enclosed farm setting. Views out screened by surrounding woodland.	Moderate (restored and modernized)	High	Imperceptible (limited views screened by intervening topography)	Negligible
3316	Ken Bridge	Category A Listed	264048	578357	5.9	11	High	Early 18th century bridge, now road bridge crossing River Ken. River setting, with views concentrated along the river valley to the N and S.	High (still in use as road bridge)	High (localized)	Imperceptible (views to wind farm will be screened by intervening vegetation and a rise in topography - wind farm will not be viewed in main views from bridge down River)	Negligible
3625	Grennan Mill (watermill)	Category A Listed	264335	580326	3.9	2	High	Small 2-storey building situated on Western banks of Garple Burn. Enclosed setting surrounded by woodland and focused on river.	High (enclosed setting with buildings having undergone little modification)	High	Imperceptible (focused water side setting and surrounded by woodland that limit	Negligible

Ref no	Site name	Status	Easting	Northing	Distance to nearest turbine (km)	No of turbines visible based on blade tip analysis	Sensitivity of Receptor	Setting	Contribution of Setting	Sensitivity of Setting	Impact Magnitude	Significance of Predicted Impact
											views out)	
9746	Knocknalling Barn	Category A Listed	259645	584846	6.1	11	High	Mid 19th century fine construction hay and winnowing barn. Forms part o a group of listed buildings, which make up Knocknalling Farm. Enclosed farm setting, surrounded by woodland shelterbelts.	High (forms part of a group of contemporary farm buildings that are well-preserved and still forms part of the farm)	High (localized)	Low (views limited by intervening woodland shelterbelt and rises in topography)	Minor
3311	Holm House	Category B Listed	264545	579642	4.5	4	Medium	Early 19th century farmhouse in enclosed woodland setting. Forms part of the Holms Non-Inventory Designed Landscape. Along with Holm Lodge, gatepiers and Old Mortality Statues. Surrounded by woodland and set down in valley.	High (farmhouse / country house set in own designed landscape)	High	Imperceptible (surrounded by woodland that screens views)	Negligible
3312	Holm Lodge	Category B Listed	264814	579282	4.7	9	Medium	Early 19 th century lodge at entrance gates to Holm House. Situated immediately E of the A769 public road. Main elevation to SE towards Balmaclellan and NW aligned up the entrance to Holm House.	High (lodge house situated at entrance to country house)	High (localized)	Imperceptible (the windfarm would not be visible within the main elevations from lodge)	Negligible
3313	Holm House 2 pairs of Gatepiers, Larger and Lesser Gate Piers	Category B Listed	264827	579285	4.5	9-11	Medium	Mid 19 th century two pairs of gatepiers on main drive to Holm House. Large pair at Lodge, lesser pair halfway along drive. Forms part of the former entrance to Holm House, not designed to have long distance views out to the surrounding landscape.	High (gatepiers forming part of former entrance to country house)	High (localized)	Imperceptible (no long distant views to surrounding landscape)	Negligible
3626	Halfmark Bridge Over Lochinvar Burn	Category B Listed	265584	582437	1.5	9	Medium	18 th century single arch bridge that crosses the Lochinvar Burn. Carries public road over river. Main views concentrated down river valley to the SW and NE.	High (river setting surrounded by farmland)	High (localized)	Low (proposed turbines will be screened partly from the bridge by vegetation and a slight rise in topography)	Minor
3676	Barlaes	Category B Listed	263129	585112	2.8	11	Medium	Early 19th century farmhouse. Main elevations to SE and NW. Overlooking open improved and rough pasture fields. Farm screened by surrounding woodland.	High (enclosed farm setting)	High (localized)	Low(enclosed farmland setting, views out partially screened by vegetation)	Minor
3681	Holm of Daltaillochan	Category B Listed	255504	594152	14.4	9	Medium	Late 18th century 2-storey farm house. Enclosed farm setting, surrounded by modern farm buildings and woodland shelterbelt. Main farm elevations aligned NW-SE looking principally down valley to Carsphain Village.	High (farmhouse set in farmsteading and surrounded by pasture fields)	High (localized)	Low(enclosed farmland setting, views out partially screened by vegetation)	Minor

Ref no	Site name	Status	Easting	Northing	Distance to nearest turbine (km)	No of turbines visible based on blade tip analysis	Sensitivity of Receptor	Setting	Contribution of Setting	Sensitivity of Setting	Impact Magnitude	Significance of Predicted Impact
9717	Knocknalling House and Walled Garden	Category B Listed	259702	584823	6.1	11	Medium	Early-mid 19th century 2-storey country house. Main elevations to the E and W. Large walled garden to the N on sloping ground. Forms part of a group of listed farm buildings, which make up Knocknalling Farm. Enclosed farm setting, surrounded by woodland shelterbelts.	High (forms part of a group of contemporary farm buildings that are well-preserved and still for part of the farm)	High (localized)	Low (views limited by intervening woodland shelterbelt and rises in topography)	Minor
9718	Knocknalling Stableyard	Category B Listed	259700	584845	6.1	11	Medium	19th century stable range which forms part of a group of listed farm buildings, which make up Knocknalling Farm. Enclosed farm setting, surrounded by woodland shelterbelts.	High (forms part of a group of contemporary farm buildings that are well-preserved and still for part of the farm)	High (localized)	Low (views limited by intervening woodland shelterbelt and rises in topography)	Minor
9726	Forrest Lodge	Category B Listed	255401	586536	10.6	11	Medium	Early 20th century arts and craft style farmhouse designed by G Ramsay Thomson of Dumfries. Lies within a large clearing in commercial forestry plantation on the SE slopes of Thonry Hill. The main elevation of the farm house looks out to the SW down the Polharrow River valley.	High (enclosed woodland setting)	High (localized)	Imperceptible (views limited by intervening woodland)	Negligible
9736	Glenlee Hydro-electric Power Station and Associated Bridge	Category B Listed	260601	580555	6.2	11	Medium	Power Station constructed in 1934. Lies immediately W of the public road. Main elevation aligned NE across open arable fields to St Johns Town of Dalry. Several large electricity pylon lines run past the power station, and a large substation is present immediately SE. The bridge, which is also listed, lies towards the front (NE side) of the power station and open views are visible to the surrounding farm land.	High (setting concentrated on river setting)	High	Imperceptible (views limited by intervening woodland and rises in topography)	Negligible
9737	Glenlee Park, Glenlees House	Category B Listed	261032	580126	6.1	11	Medium	18th century house and estate. One of many contemporary and associated buildings that form part of Glenlee Park Non-Inventory Designed Landscape. Buildings are surrounded by parkland and woodland. Lies to the W of the Water of Ken and around 1km to the SE of St Johns Town of Dalry. Views out from the designed landscape are restricted by surrounding woodland.	Moderate (forms part of a fragmentary designed landscape)	Medium	Imperceptible (screened by woodland)	Negligible
9738	Glenlee Park Bridge to East of House	Category B Listed	260969	580128	6.2	11	Medium	One of many contemporary and associated buildings that form part of Glenlee Park Non-Inventory Designed Landscape. Buildings are surrounded by parkland and woodland. Lies to the W of the Water of Ken and around 1km to the SE of St Johns Town of Dalry. Views out from the designed landscape are restricted by surrounding woodland.	Moderate (forms part of a fragmentary designed landscape)	Medium	Imperceptible (screened by woodland)	Negligible

Ref no	Site name	Status	Easting	Northing	Distance to nearest turbine (km)	No of turbines visible based on blade tip analysis	Sensitivity of Receptor	Setting	Contribution of Setting	Sensitivity of Setting	Impact Magnitude	Significance of Predicted Impact
9739	Glenlee Park Steading near House	Category B Listed	260980	580108	6.2	11	Medium	One of many contemporary and associated buildings that form part of Glenlee Park Non-Inventory Designed Landscape. Buildings are surrounded by parkland and woodland. Lies to the W of the Water of Ken and around 1km to the SE of St Johns Town of Dalry. Views out from the designed landscape are restricted by surrounding woodland.	Moderate (forms part of a fragmentary designed landscape)	Medium	Imperceptible (screened by woodland)	Negligible
9740	Glenlee Park, Urb and Pedestal in Grounds of Glenlee House	Category B Listed	261055	580067	6.1	11	Medium	One of many contemporary and associated buildings that form part of Glenlee Park Non-Inventory Designed Landscape. Buildings are surrounded by parkland and woodland. Lies to the W of the Water of Ken and around 1km to the SE of St Johns Town of Dalry. Views out from the designed landscape are restricted by surrounding woodland.	Moderate (forms part of a fragmentary designed landscape)	Medium	Imperceptible (screened by woodland)	Negligible
9741	Glenlee Park, Sarcophagus near House	Category B Listed	261024	580107	6.1	11	Medium	One of many contemporary and associated buildings that form part of Glenlee Park Non-Inventory Designed Landscape. Buildings are surrounded by parkland and woodland. Lies to the W of the Water of Ken and around 1km to the SE of St Johns Town of Dalry. Views out from the designed landscape are restricted by surrounding woodland.	Moderate (forms part of a fragmentary designed landscape)	Medium	Imperceptible (screened by woodland)	Negligible
9742	Hensol Bridge	Category B Listed	266366	570081	13.7	11	Medium	Early 19 th century bridge that crosses over the Black Water of Dee near Hensol House. Now carries the A762 road across the river. Main views concentrated down river valley to the NE and SW.	High (currently used as road bridge)	High (localized)	Imperceptible (localized views concentrated down river valley)	Negligible
9748	Old Garroch	Category B Listed	258860	582349	7.1	11	Medium	Late 17 th / 18 th century 2-storey lairds house, modernized and now used as self catering accommodation. Focal point for the Garroch Estate. Main elevations of house look to the SW and NE. The house is surrounded by former parkland and broadleaved woodland (Acre Wood).	High (lies in an area that has undergone little modification and surrounded by Garroch Estate Parkland)	High (localized)	Low (wind turbines will be visible in main views from house, and views to wind turbines will be restricted by intervening woodland)	Minor
9749	Overton House, Garden Building	Category B Listed	263407	578184	6.3	11	Medium	Garden building possible dovecot. Situated in the gardens of Overton House. Enclosed garden setting.	High (enclosed garden setting forming part of designed landscape for Overton House)	High (localized)	Imperceptible (limited by intervening forestry plantation and topography)	Negligible

Ref no	Site name	Status	Easting	Northing	Distance to nearest turbine (km)	No of turbines visible based on blade tip analysis	Sensitivity of Receptor	Setting	Contribution of Setting	Sensitivity of Setting	Impact Magnitude	Significance of Predicted Impact
9750	Polharrow Bridge over Polharrow Burn	Category B Listed	260321	584357	5.4	6	Medium	Early 18th century stone built bridge spanning Polharrow burn. No longer in use. A later road bridge now lies immediately E of the earlier bridge. The bridge is present at the confluence of the Polharrow Burn and the Water of Kinn and views are concentrated along the Polharrow Burn valley to the W and to the N end of Earlstoun Loch.	Moderate (bridge crossing river valley - no longer in use)	Medium (localized)	Imperceptible (screened by vegetation)	Negligible
10317	Shankfoot Bridge (Loch Urr Road over Castlefairn Water)	Category B Listed	274708	587215	8.1	1	Medium	Early 19 th century road bridge carrying Loch Urr road over Castlefairn Water. Views localized views down river valley.	High (road bridge currently in use)	High (localized)	Imperceptible intervening forestry plantation and rise in topography will limit views)	Negligible
38464	Brae Cottage, off Wylies Brae	Category B Listed	263423	577575	6.8	11	Medium	New Galloway Conservation Area. Enclosed urban setting, restricted to main high street and adjoining buildings.	High (forms part of New Galloway Conservation Area)	High (localized)	Imperceptible (enclosed town setting)	Negligible
38465	Clydesdale Bank	Category B Listed	263464	577819	6.6	7	Medium	New Galloway Conservation Area. Enclosed urban setting, restricted to main high street and adjoining buildings.	High (forms part of New Galloway Conservation Area)	High (localized)	Imperceptible (enclosed town setting)	Negligible
38466	East Port, Hillboro Cottage	Category B Listed	263435	577527	6.9	11	Medium	New Galloway Conservation Area. Enclosed urban setting, restricted to main high street and adjoining buildings.	High (forms part of New Galloway Conservation Area)	High (localized)	Imperceptible (enclosed town setting)	Negligible
38468	High Street, Corner House	Category B Listed	263396	577511	6.9	11	Medium	New Galloway Conservation Area. Enclosed urban setting, restricted to main high street and adjoining buildings.	High (forms part of New Galloway Conservation Area)	High (localized)	Imperceptible (enclosed town setting)	Negligible
38472	High Street, Kenburn and Burnbank	Category B Listed	263417	577662	6.7	11	Medium	New Galloway Conservation Area. Enclosed urban setting, restricted to main high street and adjoining buildings.	High (forms part of New Galloway Conservation Area)	High (localized)	Imperceptible (enclosed town setting)	Negligible
38474	High Street, Mill House	Category B Listed	263387	577660	6.7	11	Medium	New Galloway Conservation Area. Enclosed urban setting, restricted to main high street and adjoining buildings.	High (forms part of New Galloway Conservation Area)	High (localized)	Imperceptible (enclosed town setting)	Negligible
38475	High Street, Town Hall	Category B Listed	263412	577506	6.9	11	Medium	New Galloway Conservation Area. Enclosed urban setting, restricted to main high street and adjoining buildings.	High (forms part of New Galloway Conservation Area)	High (localized)	Imperceptible (enclosed town setting)	Negligible
38478	West Port, The Thorn	Category B Listed	263387	577514	6.9	11	Medium	New Galloway Conservation Area. Enclosed urban setting, restricted to main high street and adjoining buildings.	High (forms part of New Galloway Conservation Area)	High (localized)	Imperceptible (enclosed town setting)	Negligible
51352	Balmaclellan Church and Churchyard, including Crimean War Memorial and Boundary Walls	Category B Listed	265169	579125	4.8	2	Medium	Small parish church sitting on knoll on edge of Balmaclellan Village. Church surrounded by small Kirk-yard which is screened partially from the surrounding area by trees. Entrance to Kirk-yard is gained through a gate in the S side, while the main entrance to the church is on the E side. Views out, from the enclosed Kirk-yard, to the surrounding landscape are limited by	High (enclosed church setting)	High (localized)	Imperceptible	Negligible

Ref no	Site name	Status	Easting	Northing	Distance to nearest turbine (km)	No of turbines visible based on blade tip analysis	Sensitivity of Receptor	Setting	Contribution of Setting	Sensitivity of Setting	Impact Magnitude	Significance of Predicted Impact
								the village and trees.				
3417	Hensol Lodge and Gates	Category B Listed	266420	570069	13.7	11	Medium	Circa 1822 lodge and gateway at entrance to Hensol House. Situated immediately E of the A762. Main elevation of lodge looks to the SW out to the public road. Situated within woodland.	High (lodge at entrance to country house)	High (localized)	Imperceptible (screened by surrounding woodland)	Negligible
9722	Barskeoch Mains, Farmhouse and steading	Category C(S) Listed	260741	583306	5.0	8	Low	Single storey cottage of probable 18th century origin now raised and incorporated into early 19th century farmhouse and steading. The farm is situated immediately W of A713 Ayr Road. They are surrounded by modern farm buildings. The main views out from the farm are to the N and S.	Moderate (original 18th century buildings incorporated into later farmhouse and setting)	Medium (localized)	Imperceptible (screened by surrounding woodland shelterbelts)	Negligible
9724	Coom Bridge	Category C(S) Listed	261112	580365	5.9	10	Low	Early 19th century bridge, now forms road bridge over Coom Burn and part of A762. River valley setting, main views concentrated down river valley to the WNW and ESE. Crossed by electricity pylon line running from Glenlee Power Station.	High (still in use as road bridge)	Medium (localized)	Imperceptible (views along road to bridge are aligned to the N and S, while views from bridge are concentrated along river valley. Wind turbines will not be visible in these views. Views from bridge across to wind farm will be screened by St Johns Town of Dalry)	Negligible
38467	Greenhead Brae, Greenhead and Greenhead Cottage	Category C(S) Listed	263327	577449	7.0	11	Low	Part of several listed buildings that are present in New Galloway Conservation Area. Original 18th century cottage rebuilt in the early 19th century. Situated at the Western edge of the town. Enclosed urban setting, restricted to surrounding buildings.	High (forms part of New Galloway Conservation Area)	Medium (localized)	Imperceptible (enclosed town setting)	Negligible
38469	High Street, Inton	Category C(S) Listed	263396	577503	6.9	11	Low	New Galloway Conservation Area. Enclosed urban setting, restricted to main high street and adjoining buildings.	High (forms part of New Galloway Conservation Area)	Medium (localized)	Imperceptible (enclosed town setting)	Negligible
38470	High Street, Baddaroch	Category C(S) Listed	263395	577495	6.9	11	Low	New Galloway Conservation Area. Enclosed urban setting, restricted to main high street and adjoining buildings.	High (forms part of New Galloway Conservation Area)	Medium (localized)	Imperceptible (enclosed town setting)	Negligible
38471	High Street, Copper Cottage	Category C(S) Listed	263411	577449	6.9	11	Low	New Galloway Conservation Area. Enclosed urban setting, restricted to main high street and adjoining buildings.	High (forms part of New Galloway Conservation Area)	Medium (localized)	Imperceptible (enclosed town setting)	Negligible
38473	High Street, Meadowbank Cottages, South Range and North Range (including Ashburn, Meadow Bank,	Category C(S) Listed	263410	577363	7.0	11	Medium	New Galloway Conservation Area. Enclosed urban setting, restricted to main high street and adjoining buildings.	High (forms part of New Galloway Conservation Area)	Medium (localized)	Imperceptible (enclosed town setting)	Negligible

Ref no	Site name	Status	Eastings	Northing	Distance to nearest turbine (km)	No of turbines visible based on blade tip analysis	Sensitivity of Receptor	Setting	Contribution of Setting	Sensitivity of Setting	Impact Magnitude	Significance of Predicted Impact
	Centre Block & Southern Block)											
38476	Meadowbank House	Category C(S) Listed	263451	577392	7.0	11	Low	New Galloway Conservation Area. Enclosed urban setting, restricted to main high street and adjoining buildings.	High (forms part of New Galloway Conservation Area)	Medium (localized)	Imperceptible (enclosed town setting)	Negligible
49306	The Old School, Glenkens Community Arts Centre with Boundary Walls, Gatepiers and Railings	Category C(S) Listed	263392	577742	6.7	11	Low	New Galloway Conservation Area. Enclosed urban setting, restricted to main high street and adjoining buildings.	High (forms part of New Galloway Conservation Area)	Medium (localized)	Imperceptible (enclosed town setting)	Negligible
	New Galloway	CA	263448	577551	6.8	11	Medium	New Galloway Conservation Area, including ten Category B Listed Buildings and ten Category C(S) Listed Buildings. Small enclosed village setting with main buildings spread down either side of high street. Village spread along the western side of the Water of Ken at the headwaters of Loch Ken. Main views along river valley, although some long distance views afforded to the surrounding landscape particularly from the southern end of the Conservation Area.	High (enclosed village setting containing several associated village buildings)	High (localized)	Imperceptible (occasional views of windfarm in far distance glimpsed from Conservation Area, principally screened by intervening forestry plantation and topography)	Negligible
	Barscobe Castle	NIDL	265993	580575	3.2	11	Medium	Designed landscape surrounding Barscobe Castle.	High	High	Low	Minor
	Holme	NIDL	264575	579561	4.5	11	Medium	Non-Inventory Designed Landscape forms a locally prominent block of mature woodland between the A713 and the A769. Views into the NIDL are screened by trees. NIDL set down in small river valley (Garple Burn).	High (Area of mixed woodland surrounding the ground of Holme House that provides a secluded setting for the House and other listed features within the NIDL)	Medium (localized)	Imperceptible (screened by woodland)	Negligible
	Knocknalling	NIDL	259841	584809	5.9	11	Medium	Non-Inventory Designed Landscape forms a locally prominent block of mature woodland within the valley of the Water of Ken between Kendoon and St John's Town of Dalry. From the N and east the trees screen views into the NIDL, but views of Knocknalling House and other associated buildings are possible from elevated positions along the Forrest Estate road.	High (Area of mature mixed woodland surrounding the grounds of Knocknalling House, that provides a secluded setting for the House and other listed buildings present within the NIDL)	Medium (localized)	Imperceptible (screened by woodland)	Negligible
	Hannaston	NIDL	259819	582916	6.0	11	Low	Small designed garden to the W of Hanniston farm and farmstead. No apparent vistas of views out. Views out restricted by surrounding woodland.	High (small designed landscape associated with Hanniston Farm)	Medium (localized)	Imperceptible (screened by woodland)	Negligible

Ref no	Site name	Status	Easting	Northing	Distance to nearest turbine (km)	No of turbines visible based on blade tip analysis	Sensitivity of Receptor	Setting	Contribution of Setting	Sensitivity of Setting	Impact Magnitude	Significance of Predicted Impact
	Glenlee Park	NIDL	261020	580093	6.1	11	Low	Non-Inventory Designed Landscape that contains several Category B Listed buildings and features. Buildings are surrounded by parkland and woodland. Lies to the W of the Water of Ken and around 1km to the SE of St Johns Town of Dalry. No apparent vistas or views out. Views out from the designed landscape are restricted by surrounding woodland.	High (enclosed designed landscape)	Medium (localized)	Imperceptible (screened by woodland)	Negligible
	Garroch	NIDL	258811	582327	6.7	11	Low	Non-Inventory Designed Landscape principally incorporating a block of parkland and woodland surrounding Old Garroch House. Lies to the W of the Water of Ken	High (Area of parkland and woodland surrounding Old Garroch House providing a setting for the House and associated farm structures)	Medium (localized)	Imperceptible (limited by woodland and intervening topography)	Negligible
	Kenmure Castle	NIDL	262926	577042	7.8	11	Low	Non-Inventory Designed Landscape that surrounds Kenmure Castle including former designed gardens immediately adjacent to the castle ruins and surrounding woodland. Also includes relict parkland that has been partially developed for a golf course.	High (enclosed designed landscape surrounding the ruins of Kenmure Castle providing a setting for the House)	Medium (localized)	Imperceptible (limited by woodland and intervening topography)	Negligible
	Polharrow Burn	ASA	258478	586228	7.5 (from centre) 5 (from closest boundary)	11	Medium	An area of well-preserved archaeological and historic remains spanning the prehistoric and medieval periods. Particularly rich in prehistoric burial sites and associated features; and extensive prehistoric / medieval field systems.	High (well-preserved relict landscape)	High	Imperceptible (windfarm only visible from very limited areas within the ASA)	Negligible
	Stroanfreggan	ASA	264326	592908	8.3 (from centre) 6.5 (from closest boundary)	9	Medium	An area containing well-preserved multi-period sites and features, principally from the prehistoric and medieval periods. Area promoted by Carsairn Heritage Group with several heritage trails throughout.	High (well-preserved relict landscape)	High	Imperceptible (windfarm only visible from very limited areas within the ASA)	Negligible

APPENDIX 12.3: Key Cultural Heritage Sites within 15km of the Proposed Windfarm and other Windfarm Visibility Predicted by the Cumulative ZTV

Ref no	Site name	Status	Loch Hill no. of turbine tips visible	Distance to nearest Loch Hill turbine	Other windfarms visible
1018	Dalarran Holm, Standing Stone	Scheduled Monument	6	5.2	1 to 3
1029	Holm of Daltallochan, Stone Circle + Standing Stone	Scheduled Monument	9	14.6	1 to 3
1047	White Cairn, Cairn, Corriedow Bridge	Scheduled Monument	5	1.4	1 to 3
1077	Little Duchrae, Fort	Scheduled Monument	11	14.2	4 to 6
1105	Braidenoch Hill, cross slabs	Scheduled Monument	11	11.0	1 to 3
1106	Holm of Daltallochan, cross Slab	Scheduled Monument	9	14.4	1 to 3
1109	Balmaclellan Motte	Scheduled Monument	9	4.6	0
2238	Craigengillan, cairn	Scheduled Monument	9	10.4	1 to 3
5184	Woodhead Lead Mines and Smelter, Carsphairn	Scheduled Monument	11	15.9	7 to 10
5391	Polmaddy, medieval and post-medieval settlement	Scheduled Monument	11	7.7	1 to 3
7743	Kenmure Castle	Scheduled Monument	11	7.9	1 to 3
MDG3866	Carseglass, Cairn, Field Boundary, Settlement and Boundary Bank	NSR	11	2.7	1 to 3
MDG3865	Mackilston, cairn	NSR	11	4.7	1 to 3
3310	Barscobe Castle	Category A Listed	10	3.2	1 to 3
3316	Ken Bridge	Category A Listed	11	5.9	1 to 3
3625	Grennan Mill	Category A Listed	2	3.9	0
9746	Knocknalling Barn	Category A Listed	11	6.1	1 to 3
3311	Holm House	Category B Listed	4	4.5	0
3312	Holm Lodge	Category B Listed	9	4.7	0
3313	Holm House 2 Pairs of Gatepiers, Larger and Lesser Gate Piers	Category B Listed	9	4.7	0
3417	Hensol Lodge and Gates	Category B Listed	11	13.7	1 to 3
3626	Halfmark Bridge over Lochinvar Burn	Category B Listed	9	1.5	0
3676	Barlaes	Category B Listed	11	2.8	0
3681	Holm of Daltailochan	Category B Listed	9	14.4	1 to 3
9717	Knocknalling House and Walled Garden	Category B Listed	11	6.1	1 to 3
9718	Knocknalling Stableyard	Category B Listed	11	6.1	1 to 3
9726	Forrest Lodge	Category B Listed	11	10.6	1 to 3
9736	Glenlee Hydro-Electric Power Station and Associated Bridge	Category B Listed	11	6.2	0
9737	Glenlee Park	Category B Listed	11	6.1	1 to 3
9738	Glenlee Park Bridge to east of House	Category B Listed	11	6.2	1 to 3
9739	Glenlee Park Steading near House	Category B Listed	11	6.2	1 to 3
9740	Glenlee Park, Urn and Pedestal In Grounds of Glenlee House	Category B Listed	11	6.1	1 to 3
9741	Glenlee Park, Sarcophagus near House	Category B Listed	11	6.1	1 to 3
9742	Hensol Bridge	Category B Listed	11	13.7	1 to 3
9748	Old Garroch	Category B Listed	11	7.1	1 to 3
9749	Overton House, Garden Building	Category B Listed	11	6.3	1 to 3
9750	Polharrow Bridge over Polharrow Burn	Category B Listed	6	5.4	0
10317	Shankfoot Bridge (Loch Urr Road over Castlefairn Water)	Category B Listed	1	8.1	0
38464	Brae Cottage, Off Wylies Brae	Category B Listed	11	6.8	1 to 3
38465	Clydesdale Bank	Category B Listed	7	6.6	1 to 3
38466	East Port, Hillboro Cottage	Category B Listed	11	6.9	1 to 3

Ref no	Site name	Status	Loch Hill no. of turbine tips visible	Distance to nearest Loch Hill turbine	Other windfarms visible
38468	High Street, Corner House	Category B Listed	11	6.9	1 to 3
38472	High Street, Kenburn and Burnbank	Category B Listed	11	6.7	1 to 3
38474	High Street, Mill House	Category B Listed	11	6.7	1 to 3
38475	High Street, Town Hall	Category B Listed	11	6.9	1 to 3
38478	West Port, The Thorn	Category B Listed	11	6.9	1 to 3
51352	Balmaclellan Church and Churchyard, including Crimean War Memorial and Boundary Walls	Category B Listed	2	4.8	0
9722	Barskeoch Mains, Farmhouse and Farmsteading	Category C(S) Listed	8	5.0	0
9724	Coom Bridge	Category C(S) Listed	10	5.9	1 to 3
38467	Greenhead Brae, Greenhead and Greenhead Cottage	Category C(S) Listed	11	7.0	1 to 3
38469	High Street, Inton	Category C(S) Listed	11	6.9	1 to 3
38470	High Street, Baddaroch	Category C(S) Listed	11	6.9	1 to 3
38471	High Street, Copper Cottage	Category C(S) Listed	11	6.9	1 to 3
38473	Highstreet, Meadowbank Cottages, South and North Ranges	Category C(S) Listed	11	7.0	1 to 3
38476	Meadowbank House	Category C(S) Listed	11	7.0	1 to 3
49306	The Old School, Glenkens Community Arts Centre with Boundary Walls, Gatepiers and Railings	Category C(S) Listed	10	6.7	1 to 3
	New Galloway	Conservation Area	11	6.8	1 to 3
	Barscobe Castle	NIDL	11	3.2	1 to 3
	Holme	NIDL	11	4.5	4 to 6
	Knocknalling	NIDL	11	5.9	1 to 3
	Hannaston	NIDL	11	6.0	1 to 3
	Glenlee Park	NIDL	11	6.1	4 to 6
	Garroch	NIDL	11	6.7	4 to 6
	Kenmure Castle	NIDL	11	7.8	7 to 10
	Polharrow Burn	ASA	11	7.6	4 to 6
	Stroanfreggan	ASA	9	8.3	4 to 6



Key:

- Site Boundary
- Turbine Location
- Access Track
- Turning Arc
- Hardstanding
- Substation
- Substation Area
- ▲ Permanent Met Mast
- ▲ Temporary Met Mast
- Borrow Pit Search Area
- Borrow Pit Extraction Area
- Temporary Construction Compound
- Temporary Laydown Area
- + Listed Building Grade B
- Archaeological Feature (Point)
- Roadside Quarry (Point) (Site no 76)
- Trackway (OS 1st Edition)
- Field Bank (Surviving)
- Field Bank (OS 1st Edition)
- Surviving Rig
- Improved Ground/Former Rig

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Fig. No: 12.1 Revision:

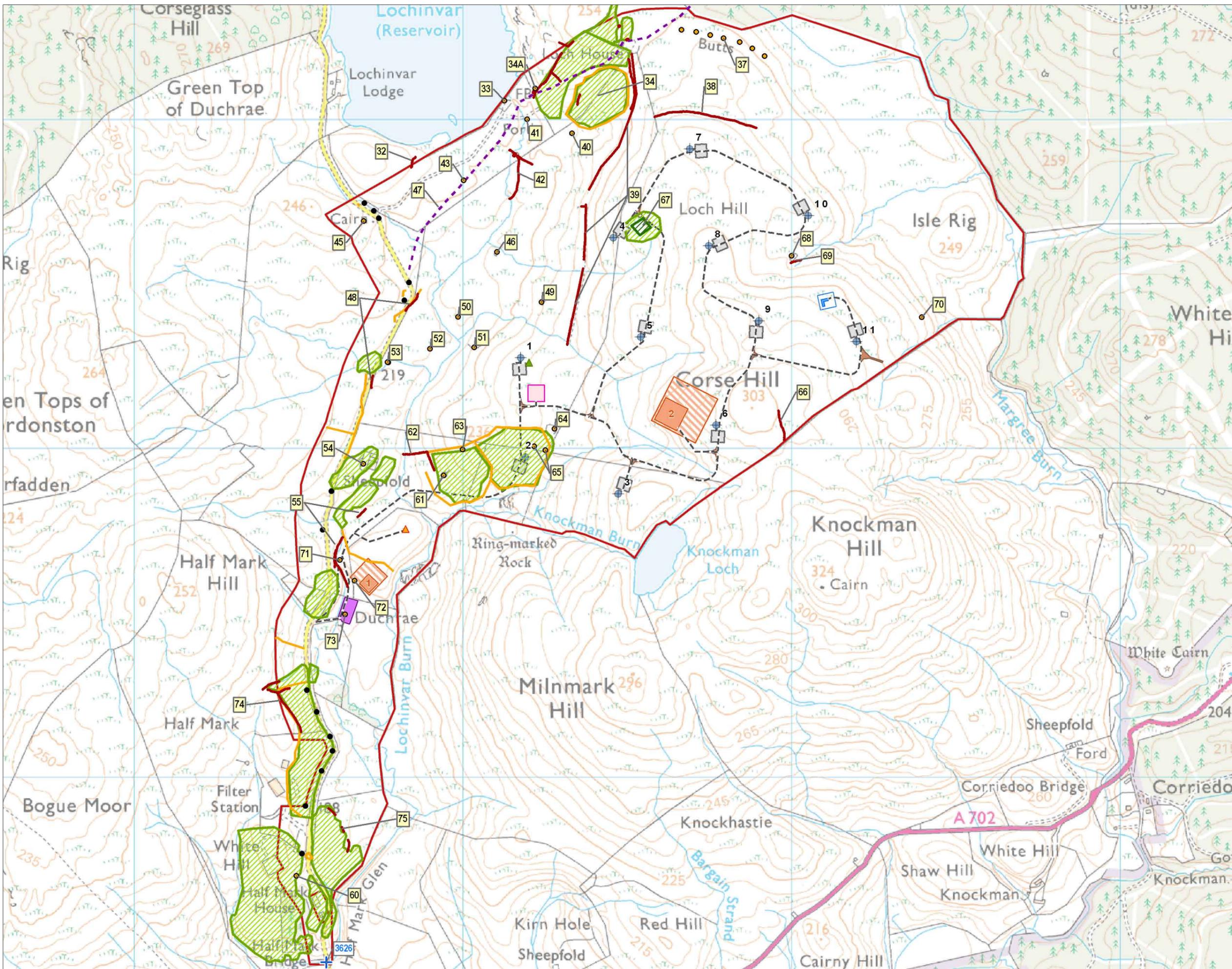
Title:
**Cultural Heritage:
Sites and Features within the
Proposed Development Area**

Project:
Loch Hill Wind Farm

Scale:
1:10,500 @ A3

Client:
LUC

Drawn by: SW Report No:



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Key:

-  Loch Hill Wind Farm
-  Turbine Location
-  Scheduled Monument
-  Listed Building Category A
-  Listed Building Category B
-  Listed Building Category C(S)
-  NSR Site
-  ASA Area
-  NIDL Area
-  Conservation Area
-  5, 10 and 15km Buffer

Turbine Tip Visibility

-  1
-  2 to 3
-  4 to 5
-  6 to 7
-  8 to 9
-  10 to 11

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Fig. No: 12.2 Revision: A

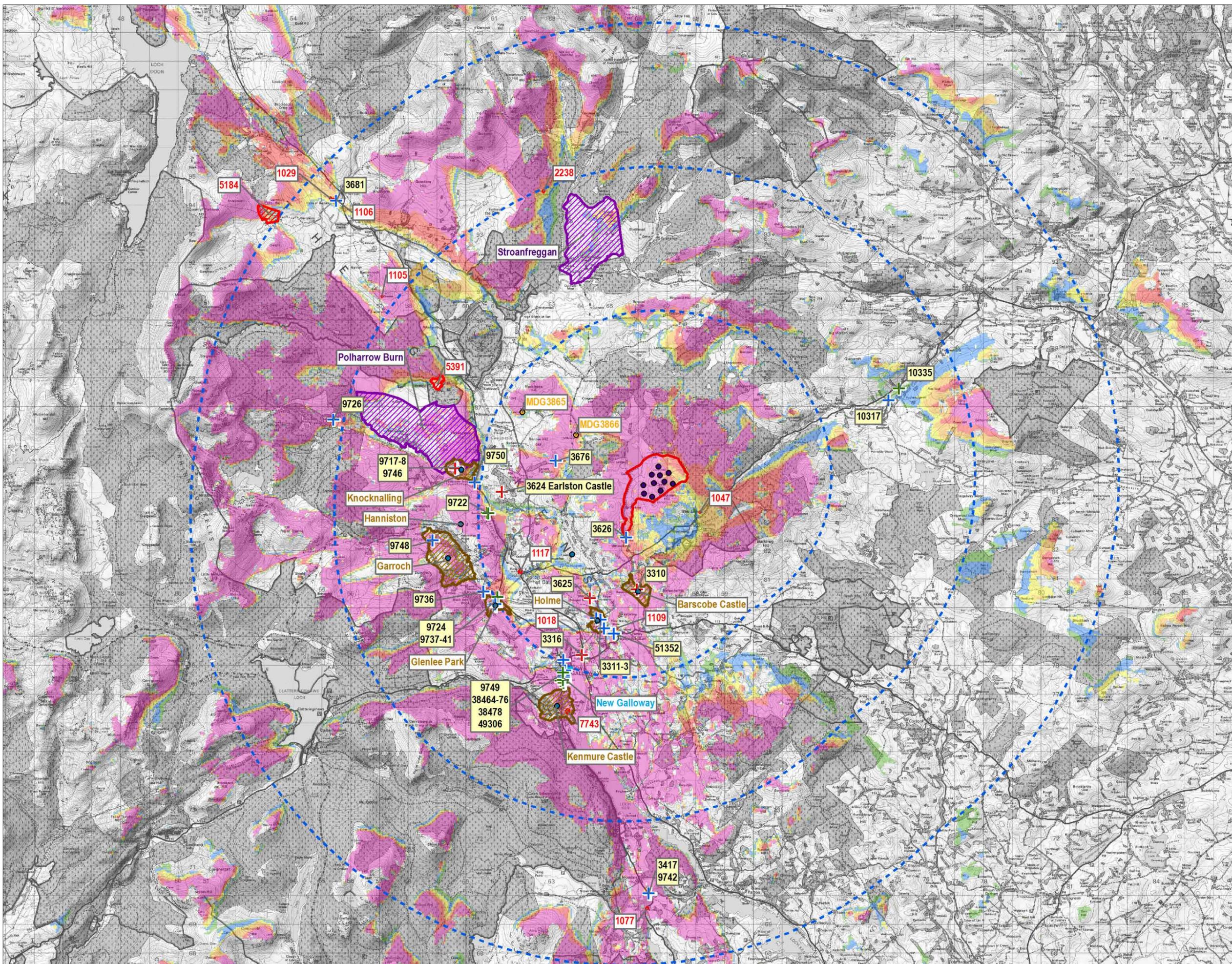
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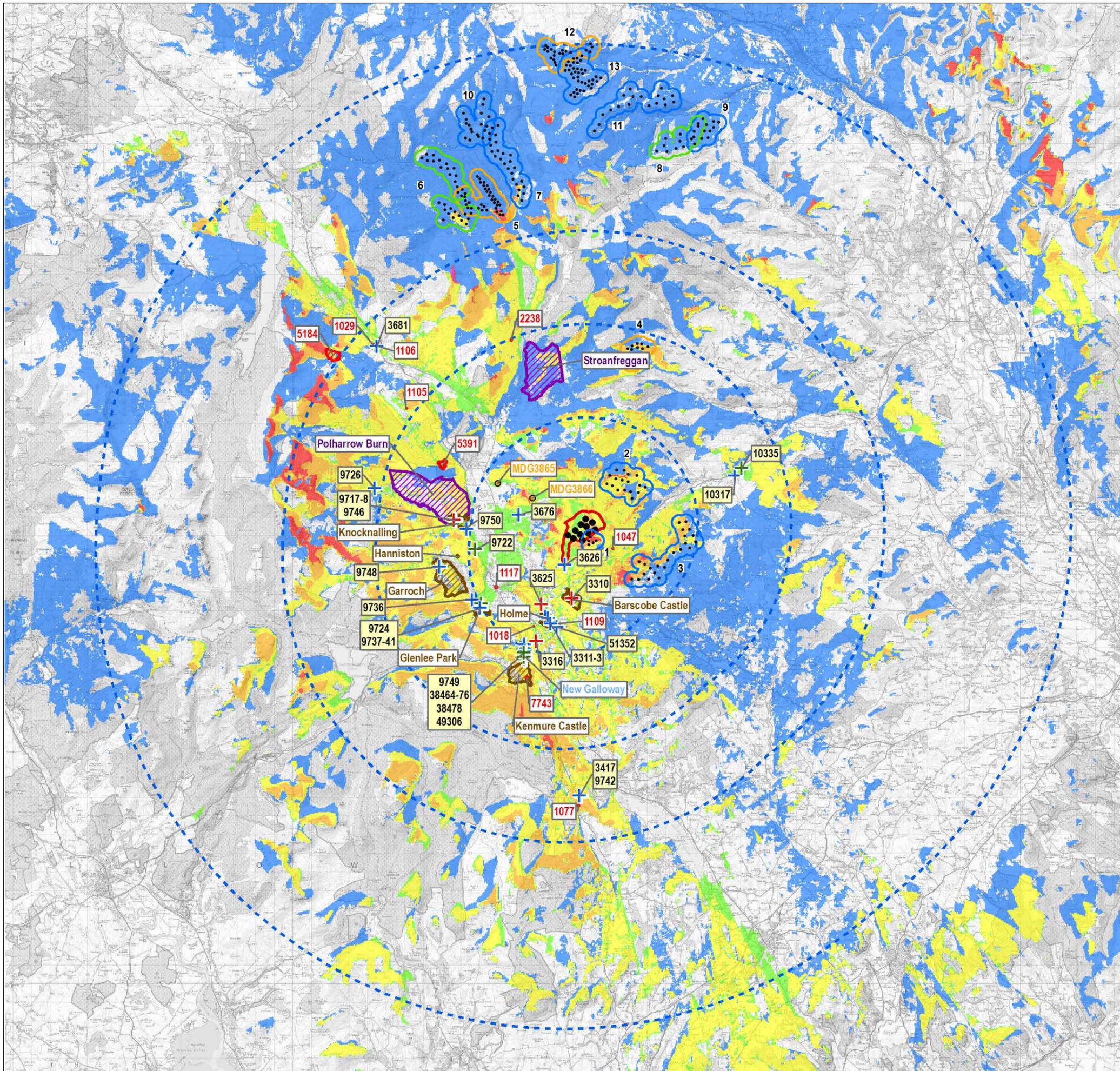
Project: Loch Hill Wind Farm

Scale: 1:122,000 @ A3

Client: LUC

Drawn by: SW Report No:





- 1 - Knockman Hill**
5 turbines (max 81m to tip)
Status: Application Submitted
- 2 - Margree**
17 turbines (max 120m to tip)
Status: Application Submitted
- 3 - Blackraig Hill**
23 turbines (max 110m to tip)
Status: Application Submitted
- 4 - Wether Hill**
14 turbines (max 91m to tip)
Status: Operational
- 5 - Windy Standard - Phase 1**
36 turbines (max 62.5m to tip)
Status: Operational
- 6 - Windy Standard - Phase 2**
30 turbines (max 120m to tip)
Status: Consented
- 7 - Afton**
26 turbines (max 100m to tip)
Status: Application Submitted
- 8 - Whiteside**
11 turbines (max 121.2m to tip)
Status: Consented
- 9 - Ulzieside**
12 turbines (max 125m to tip)
Status: Application Submitted
- 10 - Pencloe**
18 turbines (max 120m to tip)
Status: Application Submitted
- 11 - Sanquhar Community Windfarm**
18 turbines (max 130m to tip)
Status: Application Submitted
- 12 - Harehill Phase 1**
20 turbines (max 62m to tip)
Status: Operational
- 13 - Harehill Phase 2**
39 turbines (max 91m to tip)
Status: Application Submitted
- 14 - Dalswinton**
15 turbines (max 121m to tip)
Status: Operational
- 15 - Dersalloch**
23 turbines (max 125m to tip)
Status: Application Submitted
- 16 - Hill of Ochiltree**
10 turbines (max 115m to tip)
Status: Application Submitted

REGISTERED ORGANISATION
I/A

Key:

- Loch Hill Wind Farm
- Turbine Location
- Scheduled Monument
- + Listed Building Category A
- + Listed Building Category B
- + Listed Building Category C(S)
- NSR Site
- ASA Area
- NIDL Area
- Conservation Area
- 5, 10 and 15km Buffer

Potential Windfarm Visibility

- Only Loch Hill Windfarm visible
- Loch Hill Windfarm + 1-3 wind farms
- Loch Hill Windfarm + 4-6 wind farms
- Loch Hill Windfarm + 7-10 wind farms
- Loch Hill Windfarm + 11-14 wind farms
- 1 or more existing windfarm(s) visible, not the Loch Hill Windfarm

- ● ● ● ● Wind farm application submitted, awaiting determination
- ● ● ● ● Consented or under construction
- ● ● ● ● Operational wind farm

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Fig. No: **12.11** Revision: **A**

Title:
**Cultural Heritage:
Cumulative Impact Receptors**

Project:
Loch Hill Wind Farm

Scale:
1:200,000 @ A3

Client:
LUC

Drawn by: **SW** Report No: