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Tralorg Hill Wind Farm

Cultural Heritage

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Tralorg Hill Wind Farm

Cultural Heritage

10 CULTURAL HERITAGE

10.1 INTRODUCTION

This chapter evaluates the effects of the proposed Tralorg Wind Farm on cultural heritage interests. The assessment has been undertaken by CFA Archaeology Ltd (CFA) using information provided by Historic Scotland (HS) and the West of Scotland Archaeology Service (WoSAS).

The assessment was conducted in accordance with the Institute of Field Archaeologists Code of Conduct (IfA 2010) and Standard and Guidance for Archaeological Desk-based Assessment (IfA 2009).

The specific objectives of the cultural heritage study were to:

- identify the cultural heritage baseline through desk-based assessment and walk-over reconnaissance field survey;
- consider the proposed development area in terms of its archaeological and historic environment potential;
- assess the potential and predicted effects of the development on the baseline cultural heritage resource, within the context of relevant legislation and planning policy guidelines;
- propose measures, where appropriate, to mitigate any predicted significant adverse impacts; and
- consider the cumulative impacts on cultural heritage resources of the proposed development in combination with other existing and proposed developments.

The assessment evaluates the impacts of the proposed development on Scheduled Monuments and other archaeological features, Listed Buildings and other buildings of historic or architectural importance, Conservation Areas, and Gardens and Designed Landscapes.

The cultural heritage assessment was split into three parts:

- The site option area: covers approximately 800 ha to the east of Girvan for which a full desk-based assessment was undertaken. The site option area consists both of improved arable farmland and grazing in the western, northern and eastern part of the site option area (surrounding several farmsteads) with more open moorland and rough grazing within the higher slopes in the southern part of the site option area (Figure 10.1).
- The development area and site access corridor: covers approximately 100 ha within which it is proposed to erect eight turbines with associated access tracks and infrastructure. The development area takes in three prominent hill tops, Tralorg Hill, Camregan Hill and Saugh Hill, and is located in open moorland (Figure 10.2). The proposed site access corridor crosses areas of improved pasture and cultivated fields to the north of the proposed development area,

and through a mixed forestry plantation (Camregan Plantation) which forms part of the Non-Inventory Designed Landscape of Penkill Castle.

- A wider study area, extending to a 10 km radius from the centre of the proposed wind turbine group provided the study area for the identification of sites with statutory protection (and those with national non-statutory designations) whose settings (indirect effects) may be affected by the proposed development (Figure 10.3).

Figure 10.1 depicts the site option area and the locations of cultural heritage sites and features identified by the assessment. Appendix 9.1 provides a gazetteer of those sites and features and an indication of the relative value / sensitivity of each.

Figure 10.2 depicts the proposed development area and site access corridor and the locations of cultural heritage sites and features identified within that area.

Figure 10.3 shows the proposed development in its wider landscape setting together with the zone of theoretical visibility (ZTV) and the locations of key cultural heritage receptors within a 10 km radius of the centre of the turbine group that would have theoretical view of the turbines. Appendices 9.2 and 9.3 contain lists of those key receptors and provide summary assessments of the predicted indirect visual effects, on a site-by-site basis. Appendix 9.2 provides a list of those designated and non-designated assets that have predicted intervisibility with the proposed turbines and which lie within 5 km of the nearest proposed turbines. Appendix 9.3 provides a list of all assets between 5 km and 10 km from the wind farm that have predicted intervisibility with the proposed turbines.

Figure 10.4 shows the development in its wider landscape setting together with the locations of key cultural heritage receptors within 10 km which are predicted to have views of the proposed development and shows the locations of other operational, consented and application stage wind farms within the vicinity.

10.1.1 Information sources

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 proposed development area. Information from the following sources was gathered during the study:

- Data on the locations and extents of Scheduled Monuments, Listed Buildings, Garden and Designed Landscapes was downloaded from Historic Scotland's Spatial Data Warehouse (Historic Scotland 2011) in GIS format.
- South Ayrshire SMR, managed by West of Scotland Archaeology Service (WOSAS), provided information on the known archaeological sites and features within the study area. The data was provided in GIS format.
- Initial information on the character and condition of known archaeological sites and monuments within the study area was obtained from the National Monuments Record of Scotland (NMRS) via Pastmap (RCAHMS 2011a)

maintained by the Royal Commissions and the Ancient and Historic Monuments of Scotland (RCAHMS) and Historic Scotland.

- 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 on historic land-use development.
- Vertical aerial photographic collections held by the RCAHMS, provided additional baseline information; sorties dating from 1945-1974 were examined. In addition, modern online aerial photograph images (Google™ 2011) were examined.
- Bibliographic references were consulted to provide background and historical information.
- The online Historic Land-Use Assessment for Scotland (HLAMap) (RCAHMS 2011b), maintained by the RCAHMS was consulted for information on the historic land use character of the study area.
- The Scottish Palaeoecological Database (SPAD) (Coles *et al*/1998) which records the distribution of known sites across Scotland was consulted for information on palaeoenvironmental sites within or adjacent to the wind farm area.
- A reconnaissance field survey was undertaken of the proposed development area (Figure 10.2) during October 2010, in order to assess the present baseline condition of the known archaeology and heritage features identified through the desk-based assessment, to identify any further features of cultural heritage interest not detected from the desk-based assessment, to allow the character and condition of the sites located through desk-based assessment to be assessed, and to assess the proposed development area for its potential to contain currently unrecorded, buried archaeological remains.

10.1.2 Consultation

Scoping responses on cultural heritage matters were received from Historic Scotland and WoSAS. The responses relate to an early iteration of the wind farm layout (see Chapter 3) which has subsequently been changed based upon various environmental constraints and comments, including cultural heritage. Summaries of the scoping responses are set out below in Table 10.1.

Table 10.1 Consultation responses

Consultee	Response	Comment
Historic Scotland scoping response 01/09/2010		
	<p>Identified two historic environment assets that lie within the study area: Camregan Castle scheduled monument, (Index No 5403) and category A listed Penkil Castle (HB No 1148), and recommended that the ES should assess the potential for direct and indirect impacts on these two sites.</p> <p>Advised that special consideration should be given to the location of access tracks and other infrastructure elements of the wind farm in relation to these assets.</p>	<p>The site design has taken account of the need to avoid direct impacts.</p> <p>The indirect impacts of the proposed development on these sites are assessed in Section 10.4.</p>
	<p>Identified several historic environment assets that are situated in close proximity to the proposed development and advised that the impacts on their setting should be assessed with appropriate visualisations provided (photomontages or wireframes).</p> <p><u>Scheduled Monuments</u></p> <ul style="list-style-type: none"> • Dow Hill fort (Index No 2525) • Houdstoun Hill, enclosure (Index No 5603) • Shalloch Hill, palisaded enclosure (Index No 5487) • Old Dailly Church (Index No 8138) • Cairnhill, palisaded enclosure and timber house (Index No 5479) • Craighead Hill, dun 380 m WNW of (Index No 5784) • Girvan Mains, Roman camps, linear cropmark and enclosure (Index No 5596) • Gallow Hill, settlement and ring-ditch (Index No 5501) • Divin, motte (Index No 2202) • Mote Hill, barrow (Index No 5602) <p><u>Category A Listed Buildings</u></p> <ul style="list-style-type: none"> • Killochan Castle (HB no.1173) • Killochan Castle, stables (HB no.1174) • Bargany House (HB no.1171) <p><u>Gardens and Designed Landscapes</u></p> <ul style="list-style-type: none"> • Bargany 	<p>Photomontages and wireframes are provided as requested (see Table 10.10 for details).</p> <p>The indirect impacts of the proposed development are assessed in Section 10.4.</p>
	<p>Advised that the ES should address the potential cumulative impacts on historic environment assets which could arise from the proposed development in combination with other wind farm schemes in the vicinity. The cumulative assessment should specifically include the operational development at Hadyard and the proposed wind farm at Assel Valley.</p>	<p>The cumulative impacts are assessed in Section 10.5.</p>

Consultee	Response	Comment
West of Scotland Archaeology Service (WoSAS) scoping response 07/09/2010		
	<p>Advised that the proposed development is located within an area which has a number of recorded archaeological sites, some of which are scheduled and some of which are of schedulable quality, and that the ES should include an assessment of the direct and indirect impacts on these archaeological sites.</p>	<p>The baseline condition of the proposed development area is described in Section 10.2.</p> <p>The direct impacts of the proposed development are assessed in Section 10.3.</p> <p>The indirect impacts of the proposed development are assessed in Section 10.4.</p>
	<p>Outlined their requirements for the ES assessment including:</p> <ul style="list-style-type: none"> • Desk-based assessment; • Walkover survey to identify unrecorded archaeological sites; • Assessment of buried archaeological potential; and • Assessment of the indirect impacts on both scheduled sites and sites of schedulable quality (NSRs). <p>Advised that the ES should also contain proposals for archaeological mitigation.</p>	<p>The baseline characterisation of the proposed development, including results from a desk-based survey and field survey, are provided in Section 10.2.</p> <p>Discussion of the archaeological potential of the proposed development is provided in Paragraphs 10.2.35-10.2.39.</p> <p>The indirect impacts of the proposed development are assessed in Section 10.4.</p> <p>Mitigation recommendations are provided in Paragraphs 10.3.8 and 10.4.31.</p>

10.1.3 Overall approach

Assessing Significance

The impacts of the proposed development on cultural heritage assets are assessed on the basis of their type (direct, indirect and cumulative), nature (beneficial, neutral or adverse), and longevity (reversible, short-term or long-term; irreversible, and permanent). The assessment takes into account the relative value / sensitivity of the receptor and the

magnitude of impact. Mitigation measures designed to prevent, reduce or offset significant adverse impacts are proposed, and residual impacts are assessed taking into account the probable effectiveness of the mitigation proposed.

The assessment of the value / sensitivity of heritage assets has been determined from the relative weight given to them in SPP and SHEP. Table 10.2 summarises the value / sensitivity of key cultural heritage resources.

Table 10.2 Value / Sensitivity of Cultural Heritage Assets

Value / Sensitivity	Definition / Criteria
High	Sites of national and international importance, including: <ul style="list-style-type: none"> • World Heritage Sites. • Scheduled Monuments and sites proposed for scheduling. • Undesignated archaeological sites and areas of probable national importance identified in SMRs/HERs. • Category A Listed Buildings. • Gardens and Designed Landscapes (Inventory sites). • Outstanding Conservation Areas. • Designated Wreck Sites.
Medium	Sites of regional importance, including: <ul style="list-style-type: none"> • Archaeological sites and areas of distinctive regional importance. • Archaeologically Sensitive Areas. • Category B Listed Buildings. • Conservation Areas.
Low	Sites of local importance, including: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • Find-spots. • Unlisted buildings of minor historic or architectural interest. • Poorly preserved examples of particular types of features.

10.1.4 Assessment of direct impacts

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 element of the proposed development, are presented in Table 10.3.

Table 10.3 Magnitude of direct impacts

Magnitude of Impact	Description
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.

The value / 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 10.4 summarises the criteria for assigning significance of a direct impact. Major and moderate impacts are considered to significant in terms of the EIA regulations.

Table 10.4 Significance of direct impacts

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

Identification of External Receptors and Characterisation of their Setting

Historic Scotland’s guidance document ‘Managing Change in the Historic Environment: Setting’ (2010) notes that: “setting should be thought of as the way in which the surroundings of a historic asset or place contribute to how it is experienced, understood and appreciated. Setting often extends beyond the immediate property boundary of a historic structure into the broader landscape”. The guidance also suggests that if a proposed development is likely to impact on the setting of a cultural heritage asset, an objective written assessment should be prepared by the applicant to inform the decision-making process. The conclusions drawn should take into account the significance of the historic asset and its setting and attempt to quantify the extent of any detrimental impact. The methodology and level of information should be tailored to the circumstances of each case.

Details of previously recorded cultural heritage sites, monuments and landscape features with statutory and non-statutory designations, 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 a 10 km radius of the proposed development from where there is theoretical intervisibility with one or

more wind turbines. Beyond 10 km the proposed development would not be a dominant feature in the landscape and the effect on the setting of heritage assets would not be significant.

The baseline setting of each relevant receptor or related group of receptors has been 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 set out in the guidance issued by Historic Scotland (i.e. the location and orientation of the site; importance of views of or from principal facades; the importance, if applicable, of designed settings and any obvious views or vistas). The baseline setting of each receptor was characterised principally in terms of:

- Archaeological / historical context of the receptor
- Current landscape and visual surroundings of the receptor
- Social value (actual or potential) of the receptor as a recreational / leisure or educational resource

The outcome of the work was an understanding, involving the application of professional judgement, of the key characteristics that define the setting of each receptor. Where relevant, the viewpoint photomontages generated to inform the landscape and visual impact assessment (Chapter 6) were used to aid the assessment.

Scheduled Monuments, Category A and B Listed Buildings, Conservation Areas and Inventory Gardens and Designed Landscapes (GDLs) within 10 km of the centre of the proposed wind turbines; and Category C(S) Listed Buildings, Non-Inventory Gardens and Designed Landscapes and Non-Statutory Registered sites (NSRs) within 5 km of the centre of the proposed wind turbine group are assessed. There are no Historic Battlefields within 10 km of the proposed development.

Assessment of Impacts on Setting

For each receptor, where a potential impact on setting has been identified, the assessment of possible impacts adopts 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.

Criteria for Assessing Sensitivity of Setting

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.

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 10.2. Where individual designated receptors are present within larger designated areas (e.g. Listed Buildings within a Conservation Area) the sensitivity is stated as the higher of the two designations.

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 10.5.

Table 10.5 Contribution of Setting to Understanding and Appreciation of a Cultural Heritage Receptor

Contribution of Setting	Definition
<i>High</i>	<p>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.</p> <p>(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.)</p>
<i>Moderate</i>	<p>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</p> <p>(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.)</p>
<i>Low</i>	<p>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.</p> <p>(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.)</p>
<i>Negligible</i>	<p>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.</p> <p>(e.g. immediate surroundings of a commercial coniferous single species woodland or industrial development that are not relevant to understanding the context of the receptor.)</p>

These two criteria are combined to assess the overall sensitivity of a setting, as set out in Table 10.6.

Table 10.6 Sensitivity of Setting of a Receptor

Sensitivity of Receptor ▼	Contribution of Setting ►			
	<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

Where it has been established that the setting of an asset is such that there is no potential for it to be affected by the presence of the proposed development, 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 10.7.

Table 10.7 Magnitude of Impacts on Setting

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

Assessment of Impact Significance

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 10.8 presents a matrix that has been used to inform the assessment in combination with professional judgement.

Table 10.8 Significance of Impacts on Setting

Magnitude of Impact	Sensitivity of Setting		
	<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 ¹	Minor	Negligible
<i>Imperceptible</i>	Negligible	Negligible	Negligible

Significance criteria

The significance of impacts is classified as major, moderate, minor or negligible, as defined in Table 10.9. Major and moderate impacts are considered significant in terms of the EIA Regulations.

Table 10.9 Significance Criteria

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

10.1.5 Cumulative Impact Assessment

Cumulative effects are those indirect effects on the settings of cultural heritage assets in the wider landscape that arise from the proposed development in combination with other similar developments in the wider landscape. The cumulative effects assessment has considered those other wind farms developments that are installed, approved, or proposed and within a 10 km of the proposed development (Figure 10.4). A cumulative figure showing all of the installed and proposed wind farm schemes, within the wider landscape (up to 60 km) of the proposed development (Chapter 6, Figure 6.12) and paired cumulative ZTVs (Chapter 6, Figures 6.13 – 6.24) were used to aid the assessment.

10.2 BASELINE CONDITIONS

Baseline data was initially collected for a wider area (the site option area as shown on Figure 10.1) than the finally proposed development area presented in this ES. Following finalisation of the design, the proposed development area was reduced to that shown on Figure 10.2.

10.2.1 Cultural Heritage Assets within the Site Option Area

Fifty-three sites of cultural heritage interest have been identified within the site option area. The locations and extents of these are shown on Figures 10.1 and 10.2. Appendix 9.1 provides detailed gazetteer information on their character and baseline condition. Numbers in brackets in the following text refer to site numbers provided on Figures 10.1 and 10.2, and in Appendix 9.1. Due to the reduction in the site option area during the EIA process, site numbers that do not appear in Appendix 9.1 and on Figure 10.1 relate to cultural heritage sites that now lie outwith the boundary of the site option area.

Within the site option area there is one Scheduled Monument, Camregan Castle (29), and three Non-Statutory Registered Sites which are considered to be of national importance by the SMR, Brae Hill, dun (13); Saugh Hill, barrow (23) and Saugh Hill, cairn (24).

There is one Listed Building, Category B Listed, Low Troweir (4), within the site option area.

No part of the site lies within a Conservation Area or an Inventory Status Garden and Designed Landscape (GDL). However, a Non-Inventory Designed Landscape (NIDL) - Penkill Castle (37), lies within the eastern half of the site option area.

The NMRS and SMR contain records of 19 cultural heritage sites and features in the study area.

Examination of historical maps led to the identification of 22 additional sites and features within the site option area and provided additional information on sites in the NMRS / SMR.

Examination of vertical aerial photographs led to the identification of six additional sites and features, and provided additional information on the sites in the NMRS / SMR and identified from examination of historical maps.

The Scottish Palaeoecological Database (SPAD) provided no relevant information specific to the site option area.

Field survey provided further information on the baseline condition of the sites identified through the desk-based assessment within the proposed development area (Figure 10.2) and identified six new sites (51 - 54, 56, and 57).

10.2.2 Character of the Cultural Heritage within the Site Option Area

A summary is provided below of the character of the cultural heritage sites within the site option area (Figure 10.1). Detailed information on the character and baseline condition of the individual sites and features is provided in Appendix 9.1.

The majority of the sites and features within the site option area are associated with medieval or later settlement and agrarian activity. The HLA Map records that the site option area comprises a mixture of: moorland and rough grazing of potential prehistoric date; 17th-19th century policies and parkland surrounding Penkill Castle (1148); 18th-19th century rectilinear fields; drained rough grazing dating from the 20th century; and, modern conifer plantations. The proposed development area itself has not been intensively exploited for agriculture and has been used primarily as rough grazing since at least the 18th century, although the area has been partially sub-divided and enclosed, probably during the land improvements of the later 18th and 19th centuries.

Prehistoric sites

There are four sites of potential prehistoric date, and two find-spots of prehistoric artefacts within the site option area.

Two of these: a cairn (16) previously excavated in the mid-19th century (McMaster 1837) and found to contain a cist and urn; and a barrow (23), are funerary monuments of probable Early Bronze Age date. Another cairn (24) is of unknown date, although the site description and its location suggest that it may also be a burial cairn of Bronze Age date. Little survives of the cairn (16), which has been much reduced in size when the cist and urn at its centre was removed.

The NMRS records that the remains of a small, possibly defensive, settlement site of probable Iron Age date (13) are situated on Brae Hill. This site is recorded as a NSR site of probable national importance and schedulable quality in the SMR.

The NMRS and SMR record that a bronze brooch (10) and a Late Bronze Age socketed axe (18), were discovered at Brae and Fauldribbon respectively. Their discovery is indicative of later prehistoric activity in the area.

Medieval and Later Features

A possible motte (5) was recorded by Christison (1893), in the late 1800s, to the north of Low Troweir Farm, although by his own admission Christison believed that the diameter of the top of the mound (approximately 90 m) was too large for a Scottish motte site. Later survey by the Ordnance Survey in the 1950s recorded this site as a natural projecting 'drum' of boulder clay and it is now believed to be a natural feature. However no intrusive investigation work has been carried out to confirm this.

Documentary evidence indicates that a castle (29) has been present at Camregan since the 13th century. Little is known of the site except that it was the residence of the Cathcart Family who still owned it in the 19th century (Name Book 1856). Today all that survives are the stone footings of three rectangular buildings standing on a rectangular platform on the north-east edge of Camregan Glen. The ruins of the castle are scheduled and of national importance.

A small designed landscape (37) surrounds Penkill Castle (1148) and provides the setting for the Category A Listed Castle. The designed landscape comprises of a mixture of woodland and parkland and is depicted on 18th century maps (Roy 1747-55, Armstrong

€1775) although its original extent is unclear. The designed landscape is recorded as a Non-Inventory Designed Landscape (NIDL) in the SMR and is of medium sensitivity.

Several farmsteads are depicted on historical maps of the area, with farmsteads at Low Troweir (4) and Brae (12) shown on Blaeu's map of 1654, indicating that from at least the early-17th century (and probably earlier) this area has been continuously farmed. A further two farmsteads at Fauldribban (2) and Houdston (7) are depicted at on the Ordnance Survey 1st Edition map (1858). All of these farmsteads are still occupied and are working farms. The farmstead at Fauldribban (2) is a Category B Listed Building.

In addition to the farmsteads, a number of isolated buildings are recorded in the site option area. Many of these (3, 8, 9, 31, 41 and 48) are small 19th century dwellings that are still occupied. Other buildings (1, 6, 28, 38 and 39) depicted on early maps (Thomson 1828 and Ordnance Survey 1st Edition 1858), either roofed (1, 6, and 39) or unroofed (28 and 38), are not visible on modern aerial photographs and no longer exist. The ruins of one building (19), depicted as a roofless, three compartment, building on the Ordnance Survey map, still survives and has been used as a sheepfold.

A group of six shieling huts (20) is recorded in the NMRS / SMR, situated along the Doune Burn and its tributaries. A further group of probable shieling huts, along with an associated mound, (22) was recorded during the field survey on Saugh Hill. None of these structures are recorded on the Ordnance Survey 1st Edition map (1858) and are probably of earlier date (medieval / post-medieval period).

Several areas of rig and furrow cultivation (58) are visible on vertical aerial photographs across the site option area. These relict rig and furrow remains are present principally at Fauldribban (2), Low Troweir (4) and Tralorg (NX29NW 45), and are probably associated with the farmsteads shown at these locations on Blaeu's map (1654).

Two sheep rees (25 and 26), at Brae Hill, are depicted on the Ordnance Survey 1st Edition maps (1858) but not shown on subsequent editions; while another sheep ree (43) is visible on aerial photographs dating from 1954 just north-west of Tralorg Farmstead (NX29NW 45).

Miscellaneous

A freestone quarry (30) and nine whinstone quarries (11, 14, 15, 17, 21, 44, 46, 47 and 50) are depicted on the Ordnance Survey 1st Edition map (1858); while field survey identified a further four (51, 52 53 and 56). The quarries represent small-scale stone extraction, probably for use in the construction of the nearby farmsteads and buildings, and drystone field boundary walls.

Several other features of cultural heritage interest are present in the site option area including a pond / reservoir (32), depicted on the Ordnance Survey 1st Edition map (1858); a mound (40) of unknown function and date, recorded by the NMRS / SMR, on Tralorg Hill; and a series of trackways (59) that are depicted criss-crossing the site option area on the Ordnance Survey 1st Edition map. Some of these trackways are still in use as farm access tracks, while others have now gone out of use and are no longer extant.

The site option area is shown subdivided into several rectilinear fields on the Ordnance Survey 1st Edition (1858) and later maps. This same field pattern survives to the present day. The original drystone wall field boundaries, many of which are now in a dilapidated condition, have been replaced or augmented by modern post and wire fencing.

10.2.3 Cultural Heritage Assets within the Development Area

The design process for the proposed development has taken into consideration the results of the desk-based study and the reconnaissance field survey along with other constraints to produce the final proposed development layout as shown on Figure 10.2.

Out of 53 cultural heritage sites and features identified within the site option area, eight of these are located within the proposed development area (refer to Appendix 9.1 for detailed site descriptions). These consist of:

- Three possible shieling huts and an associated mound (22);
- A barrow (23);
- Possible remains of a small farmstead (45);
- Several quarry scoops (50, 51, 52 and 56);
- Field boundaries (55 and 57); and
- Two trackways (59).

Prehistoric Features

An earthen mound, recorded in the NMRS and SMR as the remains of a Bronze Age barrow (23), is present on Saugh Hill. The barrow is generally well preserved and is one of several such prehistoric burial monuments in the area. The barrow is recorded as a NSR site of probable national importance and of schedulable quality in the SMR, and is of high sensitivity.

Medieval or later settlement remains

The remnants of what may be the remains of a small farmstead (45) were identified during field survey on the south-west facing slopes of Tralorg Hill and approximately 500 m to the WNW of High Tralorg farmstead. The remains comprised two small enclosures, defined by turf banks, and a possible rectilinear building. The denuded remains of two sinuous turf and stone banks (55 and 57) were also recorded just north of the farmstead remains and may be remnants of a field system associated with the farmstead. The field banks do not correspond with any of the field boundaries depicted on the Ordnance Survey 1st Edition map (1858) and given their sinuous nature these are likely to be earlier pre-improvement field boundaries. The remains may be those of an earlier precursor to the farms at 'High Tralorg' and 'Low Tralorg', where the original 'fermtoun' split; possibly due to changes in land ownership (subletting of land, division through inheritance), or because of population growth (Glendinning & Wade Martin 2008), the split 'fermtoun' becoming amalgamated into single farms during the improvement period (Whyte & Whyte 1991). The farmstead remains and field banks are all of low importance.

The NMRS and SMR record that at the foot of a rock outcrop on Saugh Hill are the remains of two huts and two mounds, one of which may be a third hut (22). Field survey identified the structures which comprised the remains of three small circular huts, measuring 7-8m in diameter, and a roughly circular mound closely grouped together below a craggy rock outcrop. Although they are not close to a known watercourse, their position (below a south facing rock outcrop) their relative small size and their layout (grouped closely together in a row) suggests that they are the remains of shieling huts. Shieling huts were used on a seasonal basis, being occupied during the summer months when livestock was taken to upland pasture sites for summer grazing. These are commonly medieval and/or post-medieval in date but excavations elsewhere have shown that some have earlier, prehistoric, origins. The huts and associated mound are of low sensitivity.

Trackways (Site 59 on Figure 10.2)

One trackway, running from Tralorg farmstead (NX29NW 45) to Houdston farmstead (7) in the east and crossing Tralorg Hill, is depicted on the Ordnance Survey 1st Edition map (1858). This was unlikely to be a formalised road but more probably a pathway or cart track connecting the two farms. No surface remains of this trackway were identified during the field survey. A second trackway, running from Camregan to Penkill Plantation, is also shown on the Ordnance Survey 1st Edition map and is still used as a farm access track today. Both trackways are of negligible sensitivity.

Industrial Features

Field survey recorded the presence of nine quarry scoops (50, 51, 52 and 56) within the development area. All were probably excavated in the 18th-19th centuries as a source of stone and gravel for use in the construction of buildings and other agrarian features such as field walls and farm tracks. The quarries are all of negligible sensitivity.

Assessment of the Archaeological Potential of the Development Area

The development area takes in a group of three prominent hills, Tralorg, Saugh and Camregan, which are located immediately east of the town of Girvan. The area consists principally of open moorland on the high ground with some improved pasture and cultivated fields to the east and north through which the proposed access track for the development will run. Peat depth survey (Chapter 9, Figure 9.4) indicates that the peat depths across the moorland area, and in those areas in which the proposed turbines would be located, is generally shallow, typically being less than 0.3 m and no greater than 1.6m deep in limited areas.

There is evidence for prehistoric activity, both settlement remains and funerary features, within the proposed development area and in the wider surrounding landscape. These include, for instance, the remains of several Bronze Age burial features (16, 23 and 24) at the summit of Saugh Hill; a possible Iron Age fort at Dow Hill (2525), 2 km to the west of the proposed development; several possible prehistoric cropmark sites at Enoch (11593, 11594, 11598), and a possible prehistoric palisaded enclosure at Shalloch Hill (5487), 3 km

to the south-west. Numerous prehistoric artefacts have been discovered in the vicinity of the proposed development; worked and wasted flint finds have been found at Macrindleston (NS20SW 19), Girvan Mains (NS10SE 2, NX29NW 14, NX19NE 22, NX19NE 25), Girvan (NX91NE 45), and Enoch (NX29NW 12); all located to the north-west of the proposed development around the town of Girvan; a Late Bronze Age sword (NX19NE 23) was discovered at Girvan and an Iron Age bronze scabbard (NS20SW 13) discovered near Bargany House (NS20SW 13) during the late 19th century.

The area surrounding the proposed development area has been permanently settled from at least the 17th century with farmsteads at Troweir (4), Brae (12) and Tralorg (NX29NW 45); while earlier medieval / post-medieval settlement is recorded at Camergan (29) and Penkill (1148). Roy's Military Survey map (1747-55) shows the area as open moorland at the time, with cultivation restricted to the lower surrounding slopes and the river valleys. There is some evidence that the upland moorland was used for summer grazing during the medieval / post-medieval periods, and potentially earlier, with the presence of shieling huts at Saugh Hill (22) and Doune Burn (20); while the remains of a possible pre-improvement farmstead (45) and associated field system on the south-western slopes of Tralorg Hill may indicate the cultivation of high moorland areas at a time of better weather conditions in the 13th and 14th centuries.

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 prehistoric and medieval / post-medieval settlements and other features recorded in close proximity of the proposed development area it is considered that the potential of as yet, undetected, buried remains and sites surviving within the proposed development area is moderate. However, taking into consideration the limited land-take required by the separate elements of the proposed wind farm the probability of encountering hitherto undiscovered sites or features of archaeological significance during the course of the construction work is considered to be low.

10.3 CONSTRUCTION IMPACTS

The layout on Figure 10.2 embeds design based mitigation into the siting of the turbines and other infrastructure to avoid archaeological constraints wherever possible. Where the development infrastructure would potentially affect cultural heritage sites of local or greater importance appropriate mitigation is proposed to avoid or reduce disturbance, or to offset the predicted impact (Paragraphs 10.3.9-10.3.12).

10.3.1 Predicted impacts

Direct Impacts

The proposed access track between Turbines 3 and 4 would cross an old whinstone quarry (50a). In addition, a proposed dolerite borrow pit would have a direct impact on a quarry scoop (52). Both quarries are of negligible historical value and sensitivity, and no mitigation is required.

The main access track to the wind farm would follow the route of a trackway (59) that is depicted on the Ordnance Survey 1st Edition map and which is in continuing use as a farm access track. In addition, the proposed access tracks between Turbines 1, 2 and 6 would cross the route of a former trackway running between Tralorg and Houdston. Neither trackways is of great historical value and they are of negligible sensitivity; no mitigation is required.

A short section of the main access track to the wind farm would pass through the western half of Penkill Castle's Non-Inventory Designed Landscape (NIDL) (37). The track (which would require the upgrading of an existing farm track) would pass through an area of mixed woodland plantation (Camregan Plantation) which forms part of the designed landscape policies. In addition, it is proposed that a laydown area be constructed and two sandstone borrow pits be excavated within small clearings at the southern edge of the woodland plantation. None of these infrastructure elements would affect any designed landscape features nor any specific vistas or views within the designed landscape and the predicted direct impact is one of imperceptible magnitude and negligible significance. No mitigation is required.

Uncertain Impacts

Ground disturbance works associated with the construction of the proposed development could have a direct impact on any hitherto unrecorded, buried archaeological remains that may be present in affected areas. The archaeological potential of the proposed development area has been assessed as being moderate. However, given the limited extent of the proposed ground disturbance generated by the construction of the wind farm elements the likelihood of encountering remains of archaeological significance within the development area is considered to be low.

Decommissioning Impacts

No significant impacts are predicted during the decommissioning of the development, presuming that the same road infrastructure is used for the dismantling and removal of the built features of the development.

10.3.2 Mitigation measures

Except where otherwise stated all mitigation works presented in the following paragraphs will take place prior to or during the construction phase of the proposed development. All works will be conducted by a professional archaeological organisation, and the scope of works will be set out in a Written Scheme of Investigation (WSI) and will be subject to the approval of WoSAS. The WSI will make provision for appropriate post-excavation analysis and dissemination of the results of the mitigation works, as well as for archiving of the project materials and records.

Preservation in situ

Where sites and features lie in close proximity to proposed development features they will be avoided to ensure their preservation in situ. Where appropriate, sites will be either entirely fenced off or visibly marked out to prevent accidental damage occurring to the remains during construction activities in the vicinity.

- The remains of a possible farmstead (45), comprising a building and two small enclosures, lie in close proximity to the proposed access track to Turbine 1. The site will be visibly marked out with an appropriate stand-off buffer for the duration of construction works in order to signal its presence and avoid accidental damage occurring during construction related works in the vicinity.

Watching briefs

In order to ensure that any buried and unrecorded remains would be recorded the scope of any watching brief(s) would be agreed in advance of development with WoSAS. This will be set out in the WSI. It is envisaged that, as a minimum, watching briefs will be carried out in the following locations:

- The access track for the proposed development passes through the remains of a possible farmstead (45) and in order to ensure that any buried and unrecorded remains are properly identified and recorded a watching brief will be carried out during ground breaking for the proposed access track where it passes between the surviving building remains of the farmstead.

10.3.3 Predicted residual impacts

Completion of a programme of archaeological mitigation works, agreed in advance with WoSAS, would offset the loss of any unknown buried archaeological resource that may come to light as a result of the construction works. As such, no significant residual impacts are anticipated in relation to cultural heritage resources within the proposed development area.

10.4 PERMANENT AND OPERATIONAL IMPACTS

10.4.1 Predicted impacts

A list of those external receptors within 10 km of the centre of the proposed wind turbine group and predicted by the ZTV to have theoretical views to one or more turbines is provided in Appendices 10.2 and 10.3 and their locations are shown on Figure 10.2.

- Appendix 9.2 provides a list of those designated and non-designated heritage assets that have predicted intervisibility with the proposed turbines and which lie within 5 km of the nearest proposed turbine. The appendix includes a tabulated assessment of the predicted significance of impact on each of these sites.
- Appendix 9.3 provides a list of all assets between 5 km and 10 km from the wind farm that have predicted intervisibility with the proposed turbines. Historic Scotland and WoSAS have raised no concerns over the potential for

significant impacts upon the settings of any of these assets, and they have not been individually assessed.

Analysis of the ZTV indicates that there would be theoretical visibility of the turbines from: 13 Scheduled Monuments, one of which is also a Category B Listed Building; 16 Non-Statutory Register Sites (NSRs) of potential national importance; seven Category A Listed Buildings; 32 other Category B Listed Buildings; 41 Category C(S) Listed Buildings; two Inventory Gardens and Designed Landscapes (GDLs); one Non-Inventory Designed Landscape (NIDL); and one Conservation Area.

The assessment of the magnitude of indirect impacts has been based on the analysis of the blade tip ZTV, taking into account:

- The distance of the assessed site from the proposed development;
- 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.

Sites specifically identified by Historic Scotland and / or WoSAS as requiring consideration in the EIA and those considered to have sensitive settings to the proposed development have been assessed using wireframe visualisations and photomontages (Table 10.10). The impacts on these are described and discussed below (10.4.48 - 10.4.29).

The operational wind farm at Hadyard Hill, located approximately 1 km south-east of the proposed development, is considered as part of the baseline and its presence has been taken into consideration when assessing the impacts of the proposed Tralorg Wind Farm.

Table 10.10 Cultural Heritage Wireframe and Photomontage Viewpoints

Site name and no	Status	Photomontage / Wireframe	Figure no
Dow Hill Fort (2525)	Scheduled Monument	Photomontage	Viewpoint 1: Figure 10.5a-c
Old Dailly Church (8138 / 1149)	Scheduled Monument & Category B Listed	Wireframe	Viewpoint 2: Figure 10.6
Penkill Castle (1148)	Category A Listed	Wireframe	Viewpoint 3: Figure 10.7
Bargany House (1171)	Category A Listed	Wireframe	Viewpoint 4: Figure 10.8
Killochan Castle (1173)	Category A Listed	Wireframe	Viewpoint 5: Figure 10.9
Camergan Castle	Scheduled Monument	Wireframe	Viewpoint 6: Figure

Site name and no	Status	Photomontage / Wireframe	Figure no
(5403)			10.10
Saugh Hill cairn (11600)	NSR – Code V	Wireframe	Viewpoint 7: Figure 10.11

The proposed development would stand in an area of open moorland covering three prominent hill tops, Tralorg Hill, Camregan Hill and Saugh Hill, to the east of the town of Girvan and surrounded by lower lying improved farmland and rolling hills. The ZTV (Figure 10.3) shows that the proposed development would be most visible from those cultural heritage assets in the immediate landscape (5 km buffer) particularly those within a wide arc running from south-west to north-east. In the wider landscape, views from heritage assets would be limited, with a cluster of sites in the north-east between Bargany and Kilkerran.

10.4.2 Significant impacts

NSR Sites - Saugh Hill cairn (11600) and Saugh Hill barrow (11619)

The remains of two burial monuments, Saugh Hill cairn (11600) and Saugh Hill barrow (possible) (11619), are located on Saugh Hill. Both sites are recorded in the WoSAS SMR as NSR sites and are considered by WoSAS to be of schedulable quality. The first, Saugh Hill cairn (11600) stands just outside the northern boundary of the proposed development area, approximately 200 m from the nearest proposed turbine; the other monument, Saugh Hill barrow (11619) stands just within the proposed development boundary and approximately 100 m from the nearest turbine. Both monuments form part of a small group of prehistoric burial features on Saugh Hill, along a further cairn (NX29NW 8) located 400-500 m to the west.

The current setting of the monuments is the rough pasture moorland that they sit in and out over which they look. From Saugh Hill cairn (11600) distant views in a north and north-westerly direction are possible, with views of the lower lying coastal areas around Girvan and long distant views out to sea; while wide views, in all directions, can be gained from the barrow (11619). The operational Hadyard Hill turbines (about 2 km away) are visible from both monuments in views to the south-east.

All eight proposed turbines will be visible from the monuments (Viewpoint 7: Figure 10.7), in views to the east / south-east; the proposed turbines being visible in front of the operational Hadyard Hill Wind Farm. Although views from the monuments in this direction already include Hadyard Hill, and the proposed development would only be visible in one arc of view from the monuments, the addition of Saugh Hill Wind Farm would represent a noticeable change to the immediate surroundings of both monuments. Both the cairn and the barrow have settings that provide a high contribution to their archaeological understanding and appreciation and have a setting that is of high sensitivity. The impact

of the introduction of the proposed turbines on the settings of the cairn and the barrow are, therefore, assessed as being of high magnitude resulting in an impact of major significance.

10.4.3 Non-significance impacts

Historic Scotland provided a list of scheduled monuments located in the surrounding area of the proposed development that they requested be considered in the ES in terms of potential impacts on their settings (details provided in Table 10.1). The ZTV demonstrates that no wind turbines would be visible from two of these sites: Craighead Hill dun (5784) and Divin motte (2202), or in views to the dun and motte from the surrounding landscape. Therefore the proposed development would have no impact on their settings.

A further six of the scheduled monuments cited by Historic Scotland are cropmark sites: Houdston Hill enclosure (5603), Shalloch Hill, palisaded enclosure (5487), Cairnhill palisaded enclosure and timber house (5479), Girvan Mains Roman camp, linear cropmark and enclosure (5596), Gallow Hill settlement and ring-ditch (5501), and Mote Hill barrow (5602). The majority of these are on arable farmland, situated principally in the coastal areas around Girvan, and have no surface features. Their settings add little to their value or significance as an archaeological resource. All lie some distance from the proposed development, the closest, Houdston Hill enclosure (5603) 2 km to the north-west of the proposed development, and the furthest Cairnhill palisaded enclosure and timber house (5479) is 3.4 km to the north-east; all six would retain their immediate farmland settings. It is therefore assessed that the proposed development would have impacts of no more than imperceptible magnitude and negligible significance on the settings of the sites.

One of the cropmark sites, Shalloch Hill palisaded enclosure (5487), is situated on top of a prominent hill from which wide open views to the surrounding landscape can be gained and although there are no surface remains of the enclosure an appreciation of its topographic and wider landscape setting is possible. The site lies 3.1 km to the south-west of the proposed development in coastal location. Views from this site to the proposed development will be restricted by intervening topography and the ZTV indicates that at most two turbines would be visible from the monument. The site is considered to have a current setting that makes a moderate contribution to its heritage value and significance and it is assessed that the proposed development would have an impact of imperceptible and negligible significance on the sites setting.

Dow Hill Fort (2525)

The remains of a heavily robbed prehistoric fort are situated in a prominent position on the summit of Dow Hill. The fort, which is a scheduled monument, commands wide views out to the surrounding landscape particularly to the north and west across the town of Girvan (which is situated 0.5 km to its north-west) taking in the lower lying coastal areas surrounding the town and long distant views out to sea. Views to the east, and in the direction of the proposed development, are partially restricted by intervening rises in topography. The scheduled Shalloch Hill palisaded enclosure (5487) described above lies a

short distance to the south-west. The current setting of the fort is the rough pasture within which it stands and the arable landscape that immediately surrounds it.

The ZTV predicts that at most four turbines would be visible from the fort approximately 2.2 km to the north-east. The proposed development would be visible in a small arc of view (15°), beyond the skyline and partially screened by Troweir Hill (Viewpoint 1: Figure 10.5a-c). Intervening topography to the east obstructs any views of the existing Hadyard Hill turbines from the fort. Dow Hill fort has a current setting that makes a high contribution to its understanding and appreciation, consequently the setting of the fort is of high sensitivity. The impact of the introduction of the proposed turbines (closer to the monument than the current Hadyard turbines) on the setting of the fort would be of low magnitude, a slight but detectable impact that would not alter its baseline setting, resulting in an effect of minor significance.

Camregan Castle (5403)

The scheduled ruins of Camregan Castle are situated at the edge of an arable field overlooking Killoup Burn and Camregan Glen, which lie to the immediate west of the monument. Little of the castle survives, the visible remains consisting of a rough platform which has been terraced into a steep slope and on which sit the denuded footings of three stone-built structures. The castle was constructed in the 13th century and it is believed that it was the residence of the Cathcart Family, who still owned the site in the 19th century. Views from the ruins are focused out to the north-east, north and north-west taking in wide open views to coastal areas to the north of Girvan and distant views to the sea. Views to the south-west, south and south-east are restricted by a steep rise in topography immediately to the south of the site.

The castle ruins are located approximately 1.3 km to the north of the proposed wind farm. A wireline of the predicted view from the site (Viewpoint 6: Figure 10.10) shows that at most three hubs and three turbine tips would be visible against the skyline and at a higher elevation than the castle ruins; the majority of the proposed development would be screened from view by the intervening topography. From the castle views to the south-west and ESE also take in limited views of the operational turbines at Hadyard Hill, although these turbines would appear in separate views from the proposed turbines. The proposed turbines would only be visible in one small arc of view from the castle and the main views, to the north downslope and across an open coastal landscape, would not be affected. The proposed site access track would run past the castle ruins; on the east side and approximately 0.6 km away. The proposed access track would however make use of an existing farm access track which would require some upgrading. The current farm track cuts through the arable fields to the east of the castle ruins and is screened from view, from the monument, by intervening natural rises in the topography; it is likely therefore that the proposed upgrading of the track would have little or no impact on the setting of the castle ruins.

The current setting of the monument makes a high contribution to its understanding and appreciation, and the setting is considered to be of high sensitivity. The impact of the

proposed development on the setting of the castle ruins would be of low magnitude and of minor significance.

Old Dailly Church (8138 / 1149)

The generally well-preserved remains of the former 17th century parish church of Old Dailly, which is both a scheduled monument and a Category B Listed Building, stand within a small churchyard on the edge of the hamlet. The church and churchyard sit in a secluded position at the side of the B734, although views out to the wider landscape can be obtained from the churchyard. The church ruins are situated just over 2 km to the NNE of the proposed development. A wireline of the predicted view from the church (Viewpoint 2: Figure 10.6) shows that five hubs and two turbine tips would be visible against the skyline in views to the SSW and at a higher elevation than the church. From the church there would also be limited views of the operational turbines at Hadyard Hill, offset to the west of the proposed wind farm and visible as a separate development. The church has a setting that makes a high contribution to its appreciation, and its setting is of high sensitivity. Although a detectable new feature in the surrounding landscape, the introduction of the proposed turbines into the wider landscape would not significantly affect the setting of the church; neither would it detract from an appreciation of nor affect understanding of the building and its relationship with Old Dailly. The introduction of the wind farm would have an effect on the setting of the church of low magnitude and of minor significance.

Penkill Castle (1148) and Penkill NIDL

Category A listed Penkill Castle, which was originally constructed in the 16th century, stands 1.6 km to the north-east of the nearest proposed turbine. The castle was a dilapidated ruin until the mid-19th century when it was restored and a modern circular tower and wing added to the original peel tower. The castle, now a private house, stands on a peninsular ravine overlooking the Girvan Water and surrounded by woodland policies that form part of the Non-Inventory Designed Landscape (NIDL) that surrounds the castle. The castle has strong connections with the 19th century 'Pre-Raphaelite Brotherhood', who frequented the castle, and several painted murals by William Bell Scott survive in the interior of the castle. The woodland within which the castle stands limits both views out from the building and views in to the castle from the surrounding landscape, providing a secluded setting for the castle, although that setting makes a high contribution to its understanding and appreciation and is of high sensitivity.

The NIDL that surrounds the castle was recorded during a joint project run by the three Ayrshire Councils which recorded all the non-inventory designed landscapes in Ayrshire and compiled these in the 'Ayrshire Designed Landscapes' database that is held by the SMR. The NIDL is comprised principally of fragmentary mixed woodland policies that take in the Penwhapple Glen and Camregan Plantation, to the west of the castle. There are no specific designed vistas or views out from the castle or the NIDL. The proposed access track to the development will make use of an existing farm track that runs through the

woodland (Camregan Plantation). In addition a temporary laydown area will be installed at the edge of the woodland and two sandstone borrow pits will be excavated in woodland clearings. None of these elements will affect the immediate setting of the castle which is over 800 m away to the northeast.

The ZTV indicates that there would be theoretical visibility of all eight proposed turbines from the castle and a wireframe of the predicted view, from the castle (Viewpoint 3: Figure 10.7), shows that views to the proposed development would take in six hubs and two turbine tips. Views out from the castle are partially screened by surrounding woodland policies although the turbines would be visible, in a small arc (25°), slightly offset from the castle, above the tree line and against the skyline, in views along the access road when travelling towards the castle. The existing Hadyard Hill turbines would also be visible in views to the south and south-west from the castle and its GDL, but these would not be visible in the same arc of view as the proposed turbines.

Although the proposed development would be a new feature in the wider landscape, it is considered that it would have only a minimal affect on the setting of Penkill Castle and its surrounding NIDL; the presence of the turbines would not significantly affect the immediate setting of the castle neither would they detract from an appreciation of the castle, or affect the understanding of the site as a whole. It is therefore assessed that the introduction of the proposed development would have a low magnitude impact of minor significance on setting of the castle.

Bargany House (1171) and Bargany GDL

Category A listed Bargany House was constructed in the late 17th century replacing an earlier tower house. The house, which was built by the Hamilton's, has undergone some alterations and extension during the 19th century but still retains some original plasterwork and carvings. The house fell into disrepair in the 1980s but has since been completely refurbished and is now a private residence. The house stands on the south banks of the Girvan Water, at the edge of a large woodland garden in an area of parkland. Both the woodland garden and parkland form part of Bargany GDL which provides the setting for Bargany House. Several other structures, that also form part of the GDL, stand in close proximity to the house. These include a large walled garden, to the NNE, and a boat house and sundial to the south-west. The house itself stands on a slightly north-facing slope; the main entrance being oriented to the west. The GDL comprises areas of open parkland and mixed woodland policies, and the woodland gardens, just west of the house, are open to the public in May. Distant views out to the surrounding higher hill slopes can be gained from within the GDL policies.

Bargany House is just under 4 km to the north-east of the proposed development. Views from the house are generally limited to those of the immediate surrounding woodland and parkland policies. A wireframe produced for a viewpoint from the house indicates that all eight turbines would be visible, against the skyline and at a slightly higher elevation than the house, in views to the south-west. The wireline does not, however, take into consideration the screening provided by the woodland that surrounds the house. None of

the proposed turbines will be visible in views of the house that take in the main elevation and entrance from the drive and car parking area on the western side of the building, or in views out from the main elevation of the house. The existing Hadyard Hill turbines would also be visible in views from the GDL to the south; however there would only be limited locations within the GDL, principally at its northern edge, where both wind farms would be viewed in the same arc of view.

The house and the GDL have a setting that makes a high contribution to their understanding and appreciation and the setting is of high sensitivity. Although the proposed development would be a new feature in the wider landscape, and would be visible from the GDL, it is considered that the presence of the proposed turbines would not significantly affect the immediate setting of the house, would not detract from an appreciation of or understanding of the house or its setting within the GDL, would not affect the relationship of the house with other designed landscape features within the GDL, nor significantly affect the setting of the designed landscape as a whole. It is therefore assessed that the introduction of the proposed development would have a low magnitude impact of minor significance.

Killochan Castle (1173) and Stables (1174)

Killochan Castle (1173) and its stables (1174), both Category A Listed Buildings, are one of the finest examples of a fortified house in southern Scotland. The castle was built in the late 16th century and later extended during the 18th century, at which time the stable block (11764) was added as a wing to the main castle block. The buildings, which are situated just over 3 km to the NNE of the proposed development, stand in a small formalised garden and are surrounded by woodland policies.

Views of the upper levels of the castle tower, within its woodland setting, can be gained from a public road to the south; while views of the castle from the north, along the B741, are screened by intervening woodland shelterbelts. Views outwards from the castle and stable block are limited by the surrounding woodland, although open views of the wider landscape to the south, taking in Saugh Hill and the operational Hadyard turbines, are probably gained from the upper levels of the castle tower. A wireline produced for the predicted view from the castle (Viewpoint 5: Figure 10.9) indicate that five hubs and three turbine tips of the proposed wind farm would be visible against the skyline and at a slightly higher elevation. Where views of the proposed turbines would be gained they would be seen together with the operational Hadyard Hill turbines, the two wind farms appearing as two separate developments spread along the hill tops. The wireframe does not however take account of the screening provided by intervening woodland and views out from the lower levels of the castle and the GDL would be principally screened by the surrounding woodland policies.

The castle and its stables are considered to have a current setting that makes a high contribution to their appreciation and their setting is considered to be of high sensitivity. Although the proposed development would be a new feature in the wider landscape, its presence would not significantly affect the immediate setting of the castle and the stables,

it would not detract from an appreciation of the castle and stables, nor would its presence affect the understanding of the site as a whole. The introduction of the proposed development would have impacts on both the castle and the stables of low magnitude and minor significance

10.4.4 Mitigation measures

Other than the designed appearance of the proposed wind farm there are no forms of mitigation which would further reduce or off-set the effect of the proposed development on the setting of the cultural heritage assets in the wider landscape. The decommissioning of the proposed development and the removal of the turbines would return the landscape setting of the receptors to their pre-development position.

10.4.5 Predicted residual impacts

Two major residual impacts are predicted for two NSR sites Saugh Hill cairn (11600) and Saugh Hill barrow (11619) (both considered by WoSAS to be of schedulable quality). No other significant residual impacts are predicted.

10.5 CUMULATIVE IMPACTS

The location of the proposed development, the location of key cultural heritage receptors from which there would be predicted views of the proposed development, and other wind farm schemes within 10 km of the proposed wind farm and included in the cumulative assessment are shown on Figure 10.4.

The proposed Tralorg wind farm would cover the hill tops of three hills, Tralorg Hill, Camregan Hill and Saugh Hill. Within 10 km of the proposed development there are: one operational (installed) wind farm, Hadyard Hill (52 turbines) and two wind farms at the planning stage, Assel Valley (17 turbines) and Breaker Hill (23 turbines). Two developments, Hadyard Hill and Assel Valley, would lie adjacent to the proposed Tralorg development: the installed Hadyard Hill development is situated approximately 1.5 km to the south-east of the proposed Tralorg development and the proposed Assel Valley scheme, if consented, would be present immediately to the south.

In the wider landscape two clusters of wind farms (principally sites in planning) are present to the south (including schemes at Arecloch, Kilgalloch and Mark Hill) and north-east (including Dersalloch) of the proposed Tralorg development (Chapter 6, Figure 6.12). These wind farms are located over 10 km from the proposed Tralorg development and would only be seen in distant views, if at all, when viewing the proposed Tralorg wind farm from the majority of the key cultural heritage receptors within the 10 km study area.

The bulk of the cultural heritage receptors, within 10 km of the proposed Tralorg wind farm, are located to the north of the proposed development principally in the lower lying coastal areas around and to the east of Girvan. Views from these cultural heritage receptors to the proposed Tralorg wind farm would also include, in varying degrees, views of both the existing Hadyard Hill and proposed Assel Valley turbines and collectively these

developments would have the most effect on the settings of monuments in closest proximity to them. The proposed Tralorg turbines would add to the existing array of turbines (Hadyard Hill) already visible along the ridge of hills. In addition, if consented, the Assel Valley turbines would be seen together, in most views, with the Tralorg turbines; the two schemes being principally viewed from the majority of the cultural heritage receptors as one larger scheme with the Assel Valley turbines being visible behind the Tralorg turbines. Where all three schemes would be viewed together they would be generally seen at a similar distance and at a similar elevation.

Overall, there would be a cumulative impact on the settings of cultural heritage receptors from the proposed Tralorg wind farm in combination with other wind farm developments in the wider landscape most notably from Tralorg with Assel and Hadyards. The contribution from Tralorg to the cumulative impact is judged to be of minor significance.

10.6 SUMMARY

Fifty-three sites of cultural heritage interest were identified within the site option area (Figure 10.1); eight of these, three possible shieling huts and an associated mound (22), a barrow (23), three structures (45), several quarry scoops (50, 51, 52 and 56) field boundaries (55 and 57) and two trackways (59), lie within the proposed development area (Figure 10.2). The barrow (23) is recorded as a NSR site within the WoSAS SMR and is considered to be of national importance and high sensitivity; settlement remains, shieling huts (22) and possible remains of a farmstead (45) are both considered to be of low sensitivity; while all the other sites and features are of negligible sensitivity. No direct impacts are predicted on any of these sites.

The potential for as yet undetected buried archaeological remains to survive in the development area is considered to be moderate. However, taking into account the limited extent of the ground disturbance generated by elements of the proposed development the probability of encountering hitherto undiscovered sites of archaeological importance is considered to be low.

Indirect impacts on the setting of 13 Scheduled Monuments, one of which is also category B listed; 16 Non-Statutory Register Sites (NSRs); seven Category A Listed Buildings; 32 other Category B Listed Buildings; 41 Category C(S) Listed Buildings; two Inventory Gardens and Designed Landscapes (GDLs); one Non-Inventory Designed Landscapes (NIDL) and one Conservation Area within 10 km of the centre point of the proposed turbine group.

Two significant indirect impacts have been predicted: for Saugh Hill cairn (11600) and for Saugh Hill barrow (11619). Saugh Hill cairn (11600) stands just outside the northern boundary of the proposed development area, while Saugh Hill barrow (11619) lies just within the proposed development boundary. No other significant indirect impacts are predicted for key external receptors in the wider landscape.

It is considered that the contribution from the proposed wind farm to the cumulative impact on the settings of cultural heritage receptors, in combination with other wind farm developments in the area, is of minor significance.

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Vertical Aerial Photographs

Sortie	Year	Frame	Scale	Library Ref
106G/UK/0986	1945	4098-4104	1:10,400	A_0005
106G/UK/0153	1946	3140-3147	1:10,400	B_0066
106G/UK/0172	1946	3269-3274	1:10,400	B_0070
106G/UK/0151	1946	4005-4009	1:10,400	B_0671
CPE/UK/0307	1947	3003-3011 4003-4009	1:10,000	B_0207
58/RAF/1414	1954	0029-0037	1:10,666	B_0368
OS74_022	1974	022-027 045-030 072-077	1:8,000	OS_74_022
OS74_200	1974	025-030	1:8,000	OS_74_200

APPENDIX 9.1 CULTURAL HERITAGE SITES AND FEATURES WITHIN THE STUDY AREA

(Sites within the Proposed Development Area are highlighted in grey)

Site no	Site name / type	NMRS no / SMR no	Easting	Northing	Source	Site description	Sensitivity
1	Blawier, building		219470	597370	Historic maps	The Ordnance Survey 1st Edition map (1858) depicts a single roofed, long rectangular, building and associated enclosure, annotated as 'Blawier', on the west side of an unnamed burn. The site is not visible on aerial photographs.	Negligible
2	Fauldribban, farmstead		219841	597328	Historic maps; Aerial Photographs	The Ordnance Survey 1st Edition map (1858) depicts three roofed buildings and an associated enclosure, annotated as 'Fauldribban'. Fauldribban is visible on aerial photographs dating from 1945 to 1974. The farm is currently occupied.	Low
3	Low Troweir, cottage	NX19NE 70	219681	597546	NMRS; Historic maps; Aerial Photographs	A single roofed building is depicted on the Ordnance Survey 1 st Edition map (1858). A single roofed building is visible on aerial photographs dating from 1945 to 1974. The building is still occupied.	Low
4	Low Troweir, farmstead	NX19NE 69	219894	597571	NMRS; Historic maps; Aerial Photographs	A settlement, annotated as Trauwyr, is depicted on Blaeu's map of 1654. The same settlement is depicted on Roy's map (1747-55), annotated as 'Tarwier'. By the Ordnance Survey 1st Edition map (1858) the farmstead comprises two large complexes of buildings, two additional rectangular buildings and two enclosures, annotated as 'Low Troweir', The farmstead is visible on aerial photographs dating from 1945 to 1974. The farm is currently occupied. The farmstead is a Category B Listed Building (13665).	Medium
5	Low Troweir, motte (possible)	NX19NE 6 / 11433	219870	597650	NMRS, SMR; Historic maps	The NMRS and SMR record that Christison (1893) records that a nearly circular, flat-topped mound is connected by a narrow neck to the foot of a west-facing ridge. The mound rises about 9 m above the plain and has a regular artificial aspect but there is no trace of a fortification. The diameter of the top of the mound (90m) seems too great for a Scottish motte. Field survey carried by the Ordnance Survey in 1955 noted that the feature is as described by Christison, but it appears to be a natural projecting 'drum' of boulder clay and that there is no sign of a ditch on the east side. The Ordnance Survey map (1858) depicts a circular mound, annotated as 'Troweir Moat'.	Negligible
6	Building		219899	597830	Historic maps	A roofed building and enclosure are depicted on the Ordnance Survey 1 st Edition map (1858). The building and enclosure are not visible on aerial photographs.	Negligible
7	Houdston, farmstead		219998	597977	Historic maps; Aerial Photographs	Two roofed buildings and two enclosures, annotated 'Houdston', are depicted on the Ordnance Survey 1 st Edition map (1858). Houdston is visible, with modern additions, on aerial photographs dating from 1945 to 1974. The farm is currently occupied.	Low

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Site no	Site name / type	NMRS no / SMR no	Easting	Northing	Source	Site description	Sensitivity
8	Whitehill, cottage		220173	598387	Historic maps; Aerial Photographs	A rectangular steading and associated enclosure, annotated as 'Whitehall', is depicted on the Ordnance Survey 1 st Edition map (1858). Whitehill cottage, with a slightly altered layout, is visible on aerial photographs dating from 1945 to 1974. The cottage is currently occupied.	Low
9	Brae Toll, cottage	NX29NW 36 / 11613	220350	598651	NMRS; SMR; Historical maps; Aerial Photographs	The NMRS and SMR record the presence of Brae Toll Cottage. In addition, the SMR records that this building is single storey with limewashed harling and black painted dressings. A single roofed building with and associated enclosure and well, annotated as 'Brae TP (turnpike)', are depicted on the Ordnance Survey 1 st Edition map (1858). A single roofed building is visible on aerial photographs dating from 1945 to 1974. The building is still occupied.	Low
10	Brae, find-spot, bronze brooch	NX29NW 10 / 11585	220900	598400	NMRS; SMR	The NMRS and SMR record that a flat, circular, bronze brooch, 4.7cm in diameter, was found on the lands of Brae in the mid-19 th century (Smith 1895).	Negligible
11	Quarry (whinstone)		220796	598363	Historic maps	A quarry, annotated 'Whinstone' is depicted on the Ordnance Survey 1 st Edition map (1858).	Negligible
12	Brae, farmstead	NX29NW 48 / 42411	220900	598400	NMRS; SMR; Aerial Photographs, Historic Maps	The NMRS and SMR record that a farmstead and outlying buildings at Brae was recorded in the Name Book (1858) as being 'slated and in good repair'. A settlement, annotated as 'Knocbre', is depicted on Gordon's map (1636-52). The same settlement is depicted on Bleau's map (1654), annotated as 'Knokbrec'. Later maps (Roy's map (1747-55); Armstrong's map (1775), Ainslie's map (1821) and Thomson's map (1828)) show the same settlement, annotated as 'Brae'. By the Ordnance Survey 1st Edition map (1858) the farmstead is depicted as comprising one small unroofed building, nine roofed buildings, two of which are L-shaped and one of which has an attached horse-gang, and three enclosures. The farmstead, comprising three roofed buildings, is visible on aerial photographs dating from 1945 to 1974. The farmstead is currently occupied.	Low
13	Brae Hill, dun (possible)	NX29NW 7 / 11620	220950	597920	NMRS, SMR; Historic maps; Aerial Photographs	The NMRS records the presence of a small, isolated, terraced and apparently artificially scarped knoll, with suggestions of walling around the edge of its flat summit (measuring 10 m by 7 m). One terrace, 3 m wide, encircles the hillock 1.5 m below the scarp of the summit; another runs round the south side 2 - 3 m below this. It measures 2 m in width on the east and expands to a spacious platform on the west. This has obviously been a small defensive structure, possibly a dun. Its level top has a 0.2 m high stony bank around the north and east sides and there is a scatter of earth fast stones elsewhere. The origin and purpose of the terraces are not clear, however, the disturbed area on the north side below the summit is probably the result of minor stone quarrying and the platform to the west is a natural shelf. The knoll was probably occupied although there is no surface evidence of a substantial wall footing or rampart, however, this may have been robbed to provide material for a nearby dyke. The entrance to the dun is on the north-west and the only gap through the outworks is on the WSW. The SMR records that the site seems likely to be a dun, though its remains now survive in poor condition following stone-robbing and quarrying.	High

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Site no	Site name / type	NMRS no / SMR no	Easting	Northing	Source	Site description	Sensitivity
						<p>A circular mound is shown at this location on the Ordnance Survey 1st Edition map (1858).</p> <p>A circular feature is visible at this location on aerial photographs dating from 1945 to 1974.</p> <p>The site is recorded as a NSR site (Code V) in the SMR and is probably of national importance.</p>	
14	Old Quarries (Whinstone)		220200	597090	Historic maps	Two old quarries, annotated as 'Whinstone', are depicted on the Ordnance Survey 1 st Edition map (1858).	Negligible
15	Old Quarry (Whinstone)		220700	597400	Historic maps	An old quarry, annotated as 'Whinstone', is depicted on the Ordnance Survey 1 st Edition map (1858).	Negligible
16	Saugh Hill, cairn (site of)	NX29NW 8 / 11621	220770	597180	NMRS; SMR	The NMRS and SMR record the 'site of' a cairn indicated by a light-coloured grassy area 18 m to 20 m in diameter, bearing a scatter of stones, a few slight turf-covered mounds and a growth of reeds. Paterson (1863-6) and Smith (1895) suggest this may be the cairn referred to by McMaster (1837) as having been found, on removal, to contain a cist with an ornamented urn which "held about the quantity of two English pints, and contained a small portion of something like ashes". The cairn is situated on the west spur of Saugh Hill, 500m WSW of another cairn (24). Later field survey carried out by RCAHMS (1982) records that the oval cairn is situated on the west spur of Saugh Hill, 500m WSW of the cairn (24). It measured 19m by 17m, but has been reduced to a rim of cairn material enclosing little more than a spread of stones around a central mound up to 0.5m high.	Negligible
17	Old Quarries (Whinstone)		221080	597040	Historic maps	Two old quarries, annotated as 'Whinstone', are depicted on the Ordnance Survey 1 st Edition map (1858).	Negligible
18	Fauldribbon Hill, find-spot, axe	NX29NW 11 / 11586	220920	596820	NMRS; SMR	The NMRS and SMR record that a Late Bronze Age socketed axe (rectangular type) was found on Fauldribbon Hill. No further details are provided.	Negligible
19	Fauldribbon Hill, building (possible), sheepfold	NX29NW 46 / 42402	220910	596740	NMRS; SMR; Historic maps; Aerial Photographs	The NMRS and SMR record that what may be an unroofed long building, of four compartments, is depicted on the Ordnance Survey 1 st Edition map (1858). A roofless, rectangular, building is visible on aerial photographs dating from 1945 to 1974.	Low
20	Doune Burn, shieling huts and enclosure	NX29NW 57 / 42350	220900	596400	NMRS; SMR	The NMRS and SMR record that the remains of six sub-rectangular buildings and an enclosure are located around the head of Doune Burn. Two of the huts (NMRS Ref no: NX2104 9653 and NX2096 9642) lie within the enclosure, which is defined by an earthen bank on the south, west and east and by the Doune Burn on the north, enclosing an area measuring approximately 200 m from north-east to south-west by approximately 100 m from north to south. The remaining huts are scattered beside other small tributaries of the Doune Burn. The huts range in size from 6.1 m to 3 m in length, by 2.8 m to 2.2 m wide internally within turf walls between 1.3 m and 1.6 m in thickness and up to 0.5 m in height.	Low
21	Quarry (whinstone)		221122	596683	Historic maps	A quarry, annotated 'Whinstone', is depicted on the Ordnance Survey 1 st Edition map (1858).	Negligible
22	Saugh Hill, huts, mound	NX29NW 31 / 11608	221350	597030	NMRS; SMR; Field Survey	The NMRS and SMR record that at the foot of a rock outcrop on Saugh Hill there are the remains of two huts and two mounds, one of which may be a third hut. Field survey identified the remains of three probable huts and a mound, these were clustered together at the bottom of a steeply sloping rock outcrop: (22a) – NX 21367 97029. This hut is circular in plan and measures approximately 8 m in diameter, enclosed by a	Low

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Site no	Site name / type	NMRS no / SMR no	Easting	Northing	Source	Site description	Sensitivity
						turf bank 0.6 m high and spread to 3 m wide. (22b) – NX 21349 97031. This hut is circular in plan and measures approximately 7 m in diameter enclosed by a turf bank up to 0.4 m high and spread to 3 m wide. (22c) – NX 21332 97033. This hut is circular in plan and measures approximately 7 m in diameter, enclosed by a turf bank 0.4 m high and spread to 3 m wide. (22d) – NX 21327 97035. The mound is roughly circular in plan and measures approximately 5 m in diameter and 0.3 m high.	
23	Saugh Hill, barrow,	NX29NW 6 / 11619	221230	597130	NMRS; SMR; Field Survey	The NMRS and SMR record a conspicuous earthen mound, probably a barrow, 10 m in diameter, 0.6 m high and overgrown with reeds and moorland grass. Only one stone is visible and there is a shallow hollow in the centre. Field survey noted that this barrow is as previously described in the NMRS and SMR. The SMR records this site as a NSR site (Code C) and considers it almost certainly of national importance.	High
24	Saugh Hill, cairn	NX29NW 24 / 11600	221210	597390	NMRS; SMR	The NMRS and SMR record that the Ordnance Survey triangulation station on Saugh Hill (293m OD) stands on a robbed cairn measuring 15m in diameter by 0.3m in height. The SMR records this site as a NSR site (Code V) and considers it to be of probable national importance.	High
25	Sheep Ree		221220	598020	Historic maps	A sheep ree, divided into four compartments, is depicted on the Ordnance Survey 1 st Edition map (1858) in the western corner of a larger field.	Negligible
26	Sheep Ree		221790	598220	Historic maps	A sheep ree is depicted on the Ordnance Survey 1 st Edition map (1858).	Negligible
27	Building		221600	598550	Aerial photographs	The ruins of a possible building are visible on aerial photographs from 1947 and 1974, and on modern aerial photographs.	Negligible
28	Camregan Glen, building	NX29NW 49 / 40402	221990	598570	NMRS; SMR; Historic Maps	One unroofed building is depicted on the Ordnance Survey 1 st Edition map (1858).	Negligible
29	Camregan Castle	NX29NW 4 / 11617	221520	598700	NMRS; SMR; Historic maps	The NMRS and SMR note that the Name Book (1856) records the remains of a castle which appears to have been surrounded by a moat and is said to have been a residence of the Cathcart family. Field survey carried out by the RCAHMS (1982) records that a roughly rectangular platform has been formed on the north-east edge of Camregan Glen, 350 m SSW of Camregan farm. It is flanked on the south-west by the steep sides of the glen and elsewhere by a broad ditch with a substantial external bank (10 m thick and up to 5.2 m high) on the north-west and a low external bank (3 m thick) on the south-east. There are traces of a possible stone wall around the edge of the platform, and upon it there are the remains of up to three rectangular buildings, now largely reduced to their stone footings, although one appears to incorporate a fragment of mortared masonry 1.6 m long, 2.8 m high and 0.8 m thick. The castle is said to have been a residence of the Cathcart family from the 13th century, but the visible buildings are probably of later date. 'O.Kameragan' is annotated on Blaeu' map of 1654. The site is annotated as 'ruins' on Armstrong's map of 1775 and Ainslie's map of 1821. Camregan Castle (in ruins) is depicted and annotated on the Ordnance Survey 1 st Edition map (1858).	High

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Site no	Site name / type	NMRS no / SMR no	Easting	Northing	Source	Site description	Sensitivity
						The castle is a Scheduled Monument (5403).	
30	Freestone Quarry		221470	598850	Historic maps	A freestone quarry is annotated on the Ordnance Survey 1 st Edition map (1858).	Negligible
31	Camregan, Cottages		221425	598910	Historic maps; Aerial Photographs	A roofed building is depicted on the Ordnance Survey 1 st Edition map (1858). A roofed building is visible on aerial photographs dating from 1945 to 1974. The cottages are currently occupied.	Low
32	Pond		221640	599040	Aerial photographs	A pond is depicted on the Ordnance Survey 1 st Edition map (1858). A turf banked, square enclosure is visible on aerial photographs from 1946.	Negligible
33	Number not used						
34	Number not used						
35	Number not used						
36	Number not used						
37	Penkill Castle designed landscape	53480	222580	598515	SMR; Historic maps	Blaeu (1654) depicts an impaled park and planting on the east side of Penwhapple Glen. Roy (1747-55) marks the house within single, small, tree-lined enclosure, without additional woodland or surrounding cultivation. Armstrong (1775) shows an enclosure and policy planting, though the house is marked as 'ruins'. On the Ordnance Survey 1st Edition map (1858) more extensive woodland is depicted around the castle and in Penwhapple Glen to the west, though the house is still noted as being 'in ruins'. Field survey identified that the proposed access track cuts through an area of plantation which forms part of the non-inventory designed landscape. The SMR records the site as a Non-Inventory Designed Landscape (NIDL).	Medium
38	Penwhapple Burn, building (possible)	NX29NW 50 / 40401	222800	598430	NMRS; SMR	What may be an unroofed long building of three compartments is depicted on the Ordnance Survey 1 st Edition map (1858).	Negligible
39	Building		222975	597733	Historic maps; Aerial Photographs	A roofed building is depicted on the Ordnance Survey 1 st Edition map (1858). An unroofed building is visible on aerial photographs dating from 1945 to 1974.	Negligible
40	Tralorg Hill, mound	NX29NW 16 / 11591	222720	597570	NMRS; SMR; Aerial Photographs	The NMRS and SMR record an artificial, sub-circular mound situated on a slight prominence on a steep north-east facing slope at 140 m OD in recently cultivated ground. It measures 7.5 m in overall diameter, 0.5 m high, and has a level but slightly dished top, giving the appearance of a perimeter bank. It appears to be entirely composed of earth and there is no surrounding ditch. Doubtfully a barrow, its purpose is uncertain, but it has no characteristics of a modern feature. A circular feature is visible on aerial photographs dating from 1974.	Unknown
41	Low Tralorg, building		223587	597048	Historic maps; Aerial Photographs	A roofed building, annotated as 'Laigh Tralorg', is depicted and annotated on the Ordnance Survey 1 st Edition map (1858). A roofed building is visible on aerial photographs dating from 1945 to 1974.	Low
42	Number not used						

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Site no	Site name / type	NMRS no / SMR no	Easting	Northing	Source	Site description	Sensitivity
43	Sheepfold		223170	596780	Aerial photographs	A rectangular sheepfold, divided into four compartments, is visible on aerial photographs dating from 1954.	Negligible
44	Quarry (whinstone)		222959	596808	Historic maps; Aerial Photographs	An old quarry, annotated 'Whinstone', is depicted on the Ordnance Survey 1 st Edition map (1858). A quarry is visible on aerial photographs dating from 1945 to 1974.	Negligible
45	Structures		222760	596910	Aerial photographs; Field Survey	The remains of three rectangular structures are visible on aerial photographs from 1974. Field survey identified the remains of three structures: (45a) – NX 22742 96957. This structure measures approximately 7m by 7m with low turf banks 0.3m high. (45b) – NX 2276 9694. This structure measures approximately 5m by 5m with turf banks 0.3m high and is located approximately 27m to the east of structure (a). (45c) – NX 2278 9689. This structure measures approximately 8m by 3m with turf banks 0.3m high. It is located to the south east of structure (b).	Low
46	Old Quarry (Whinstone)		222760	596430	Historic maps; Aerial Photographs	An old quarry, annotated as 'Whinstone', is depicted on the Ordnance Survey 1 st Edition map (1858). A quarry is visible on aerial photographs dating from 1945 to 1974.	Negligible
47	Old Quarry (Whinstone)		222806	596327	Historic maps; Aerial Photographs	An old quarry, annotated as 'Whinstone', is depicted on the Ordnance Survey 1 st Edition map (1858). A quarry is visible on aerial photographs dating from 1945 to 1974.	Negligible
48	Building		222890	596330	Historic maps; Aerial Photographs	A roofed building situated within a semi-circular enclosure is depicted on the Ordnance Survey 1 st Edition map (1858). A roofed building is visible on aerial photographs dating from 1947.	Low
49	Number not used						
50	Quarry (whinstone)		221885	596889	Historic maps; Aerial Photographs; Field Survey	An old quarry, annotated as 'Whinstone', is depicted on the Ordnance Survey 1 st Edition map (1858). A quarry is visible on aerial photographs dating from 1945 to 1974. Field survey recorded three quarry scoops: (50a) - a large quarry scoop cut into a north facing slope. It measures approximately 40m SW to NE, is 14m wide and 3-4m deep. It is generally grassed over with some stone visible and modern debris within the scoop. (50b) - a smaller scoop was noted directly to the west of 50a measuring approximately 10m by 14m and 4m deep. (50c) - another quarry scoop was recorded approximately 30m to the south-east of the main quarry scoop (a). It measures approximately 5m by 3m and 1.2m deep.	Negligible
51	Quarries		221816	597500	Field Survey	Field survey identified a group of three quarry scoops cut into a north facing hillside: (51a) - NX 21816 97500. The quarry scoop measures approximately 15 m by 10 m and 2 m deep. (51b) - NX 21783 97499. This quarry scoop measures approximately 3 m by 2 m and 1.5 m deep. (51c) - NX 21771 97502. This quarry scoop measures approximately 9 m by 4 m and 1.5 m deep.	Negligible
52	Quarries		221999	597436	Field Survey	Field survey identified a quarry scoop cut into a bedrock outcrop. It is oval in plan and measures approximately 23 m by 6 m and 1.5 m deep.	Negligible

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Site no	Site name / type	NMRS no / SMR no	Easting	Northing	Source	Site description	Sensitivity
53	Quarries		222087	597550	Field Survey	Field survey identified two adjoining quarry scoops cut into a north facing slope. They measure approximately 26 m by 8 m and 2.5 m deep, overall.	Negligible
54	Field boundary bank		222480	597472	Field Survey	Field survey noted the remains of a field boundary consisting of a low bank. It runs south-west from NX 2255 9746 to NX 2252 9744 where it turns and runs north-west to NX 2247 9750. Then it turns and runs west to NX 2244 9749 where it turns and runs north-west to NX 2243 9751, terminating at a north to south running drain. It is crossed by a modern post and wire field boundary at NX 2243 9751. It has occasional stone inclusions suggesting that it may have originally been a stone wall. It measures approximately 1.5 m wide and 0.3 m high. The bank does not correspond with any of the field boundaries shown on the Ordnance Survey 1 st Edition map (1858).	Negligible
55	Field boundary				Aerial photographs; Field survey	A field boundary is visible on aerial photographs dating from 1946 to 1974 and on modern aerial photographs. Field survey noted that this field boundary bank measures up to approximately 2 m wide and 1 m high. A drain has been cut beside it in places, mostly where it runs along the summit of Tralorg Hill. It extends from NX 22367 97522 to NX 22345 97270 where it turns and head south-east to NX 22609 97038 where it turns again and heads north-east to NX 22831 97165 to a modern post and wire fence where it terminates. The bank does not correspond with any of the field boundaries shown on the Ordnance Survey 1 st Edition map (1858).	Negligible
56	Quarries		222689	596971	Field Survey	Field survey identified two quarry scoops, in close proximity, cut into a small hillock on Tralorg Hill. This first quarry scoop is oval in plan and measures approximately 14 m by 7 m and 2 m deep, the second is also oval in plan and measures approximately 16 m by 4 m and 1.5 m deep.	Negligible
57	Field boundary		222810	596997	Field Survey	Field survey recorded the denuded remains of a field boundary. The feature is a low, linear bank running approximately east to west from NX 2275 5970 to NX 2286 9700 where it turns and runs southwards for approximately 50 m. It measures approximately 1.5 m wide and 0.3 m high and has been trampled by livestock in places. The bank does not correspond with any of the field boundaries shown on the Ordnance Survey 1 st Edition map (1858).	Negligible
58	Rig and furrow cultivation				Aerial photographs	Patches of remnant rig and furrow are visible on aerial photographs dating from 1945 to 1974 and on modern aerial photographs.	Negligible
59	Trackways				Historic maps; Aerial photographs; Field Survey	Numerous trackways are depicted on the Ordnance Survey 1 st Edition map (1858), crossing or extending onto the higher ground. Many of the trackways are visible on aerial photographs dating from 1946 to 1974 and some, such as the one proposed for upgrading for use as the main access track and the track leading east from Brae are still in use. The remaining tracks are no longer in use and no trace of the track crossing Tralorg Hill, from Tralorg (42) to Houdston (7), was found during the field survey.	Negligible

APPENDIX 9.2 KEY CULTURAL HERITAGE ASSETS WITHIN 5 KM OF THE NEAREST TURBINE

Site no	Site name	Status	Easting	Northing	No of turbines visible	Distance to nearest turbine (km)	Sensitivity of receptor	Setting	Contribution of Setting	Sensitivity of Setting	Magnitude of Impact	Significance of Predicted Impact
2525	Dow Hill, fort	SM	219287	596073	4	2.2	High	The remains of a heavily robbed fort situated at the summit of Dow Hill. Situated in an area of rough pasture. Surrounded by open improved pasture fields. Wide open views can be afforded from the fort to the surrounding landscape. Open views out to surrounding landscape, particularly to the west taking in the coastline and open seascapes.	High	High	Low	Minor
5403	Camregan Castle	SM	221517	598704	2	1.3	High	The poorly preserved and denuded remains of Camregan Castle comprising of a roughly rectangular platform with traces of a possible stone wall around the platform and the remains of three rectangular buildings, now reduced to their stone footings, upon the platform. The castle remains sit immediately east of the Killoup Burn and overlooks the Camregan Glen. The castle remains survive on a north-west facing slope and views from the monument are focused principally to the south-west, taking into the coastal areas to the north of Girvan and long distant seascapes.	High	High	Low	Minor
5479	Cairnhill, palisaded enclosure and timber house 220m NNE of	SM	223501	600404	8	3.4	High	Cropmark site situated in arable farmland.	Negligible	Low	Imperceptible	Negligible
5487	Shalloch Hill, palisaded enclosure 350m S of Shallochpark	SM	218471	595785	2	3.1	High	Cropmark site of a palisaded enclosure on the summit of Shalloch Hill in an area of arable farmland. Open views out to surrounding landscape, particularly to the west taking in the coastline and open seascapes.	Medium	High	Imperceptible	Negligible
5501	Gallow Hill, settlement and ring-ditch 320m N of Girvan Mains	SM	219047	599641	8	3.3	High	Cropmark site situated in arable farmland.	Negligible	Low	Imperceptible	Negligible
5596	Girvan Mains, Roman camps, linear cropmark and enclosure	SM	218896	599095	6	3.1	High	Cropmark site situated in arable farmland.	Negligible	Low	Imperceptible	Negligible
5602	Mote Hill, barrow 300m NNW of	SM	218906	597285	4	2.4	High	Cropmark site of an enclosure, probably a prehistoric burial site, on a rounded knoll which is now encircled by Mote Hill	Negligible	Low	Imperceptible	Negligible

APPENDIX NINE: CULTURAL HERITAGE CHAPTERS

Site no	Site name	Status	Easting	Northing	No of turbines visible	Distance to nearest turbine (km)	Sensitivity of receptor	Setting	Contribution of Setting	Sensitivity of Setting	Magnitude of Impact	Significance of Predicted Impact
	Coalpots Bridge							Road and a modern housing estate.				
5603	Houdston Hill, enclosure 300m SSW of Drumrannie Bridge	SM	219732	598321	4	2.0	High	Cropmark site situated in arable farmland.	Negligible	Low	Imperceptible	Negligible
8138 / 1149	Old Dailly Church and Churchyard	SM / Cat B	222538	599336	8	2.1	High	The remains of a former parish church originating from the 13 th century and abandoned in the 17 th century. The church ruins, which stand to roof height, are located at the centre of a small churchyard, which is scheduled along with the church. A modern mausoleum has been incorporated within the east end of the church. The church and surrounding church yard sit down in a small natural depression at the edge of Old Dailly Hamlet. The church has a secluded setting, although there are views out to the wider landscape.	High	High	Low	Minor
5485	Ladywell, Enclosure; Linear Cropmarks; Pits	NSR Code C	220265	600705	2	3.6	High	Cropmark site within arable farmland including a medieval enclosure and possible earlier prehistoric features. Partially excavated in the late 1990s during construction of an industrial estate within the area.	Negligible	Low	Imperceptible	Negligible
5491	Trochrague, Enclosure; Rig	NSR Code C	221095	600255	8	2.9	High	The remains of an oval enclosure and traces of rig and furrow cultivation / lynchets located in an improved pasture field immediately south-west of Trochrague Farm. Views out to surrounding arable farmland and distant views to the south taking in Saugh Hill.	Moderate	High	Low	Minor
11593	Enoch, Palisaded Enclosure	NSR Code C	220885	599345	8	2.1	High	Cropmark site situated in arable farmland.	Negligible	Low	Imperceptible	Negligible
11594	Enoch, Settlement	NSR Code C	220905	599315	6	2.1	High	Cropmark site situated in arable farmland.	Negligible	Low	Imperceptible	Negligible
11598	Enoch, Round House	NSR Code C	220835	599325	8	2.1	High	Cropmark site situated in arable farmland.	Negligible	Low	Imperceptible	Negligible
11602	Balcletchie, Cairn	NSR Code C	224750	596550	8	2.6	High	A burial cairn situated on a low hill around 400 m NNW of Balcletchie Farmhouse. Stands in rough pasture and heathland. Situated within the operational Hadyard Hill wind farm and is within 100 m of one of the Hadyard Hill turbines. Setting already impacted by the Hadyard Hill development.	Moderate	High	Imperceptible	Negligible
11606	Camregan, Mote Wood, Mound	NSR Code C	222155	599485	8	2.1	High	A large mound of unknown date and purpose, although possibly the remains of a burial cairn, stands in dense woods	Negligible	Low	Imperceptible	Negligible

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Site no	Site name	Status	Easting	Northing	No of turbines visible	Distance to nearest turbine (km)	Sensitivity of receptor	Setting	Contribution of Setting	Sensitivity of Setting	Magnitude of Impact	Significance of Predicted Impact
								around 400 m to the WNW of Old Dailly Church (8138 / 11584). Wood restricts views to or from the monument.				
11619	Saugh Hill, Barrow (possible)	NSR Code C	221230	597130	8	0.1	High	The remains of a probable prehistoric barrow situated on the crest of Saugh Hill and formerly the site of an OS triangulation point. Situated in rough pastureland. Wide open views out to the surrounding landscape in all directions. Forms part of a small group of prehistoric burial monuments standing on Saugh Hill, including Saugh Hill cairns (11600 and NMRS Ref no: NX29NW 8)	High	High	High	Major
11435	Girvan, Old Parish Church, Church; Graveyard	NSR Code V	218635	598295	6	2.9	High	Forms part of Girvan Conservation Area. Enclosed town setting.	High	High	Low	Minor
11453	Byne Hill, Farmstead (possible)	NSR Code V	217970	594725	8	4.0	High	The remains of a possible farmstead including the remains of a rectangular building, an associated enclosure and extensive traces of rig and furrow cultivation remains present on the south side of the saddle between Byn Hill and an unnamed hill to the south. In addition fifteen hut circles have been identified located to the south of Byn Hill. All situated in an area of rough pasture. Views out from the site are focused particularly on the coast to the west, and out to the North Atlantic Ocean. Other views take in a rolling landscape of hills and valleys.	High	High (localised)	Low	Minor
11580	Hughes Knolls, Little Lane, Cairn (possible)	NSR Code V	225650	598450	8	3.6	High	A probable prehistoric burial cairn situated on the west spur of Hughes Knolls. Situated in an area of rough pasture and heathland. Wide open views out across the moorland taking in rolling hills to the south, west and north; although views to the east are somewhat restricted by a rise in topography. Long distance views to coastal areas surrounding Girvan town and seascapes.	High	High	Low	Minor
11600	Saugh Hill, Cairn	NSR Code V	221215	597395	8	0.2	High	The remains of a robbed prehistoric burial cairn standing on a north facing slope of Saugh Hill; now position of an OS triangulation station which has been constructed on top of the cairn. Situated in area of rough pasture. Open views particularly out to the north and to Girvan with wide distant views across the lower coastal areas surrounding the town and with extensive seascape views. Slight rise in	High	High	High	Major

APPENDIX NINE: CULTURAL HERITAGE CHAPTERS

Site no	Site name	Status	Easting	Northing	No of turbines visible	Distance to nearest turbine (km)	Sensitivity of receptor	Setting	Contribution of Setting	Sensitivity of Setting	Magnitude of Impact	Significance of Predicted Impact
								topography to the south and south-east limits views in this direction. Forms part of a small group of prehistoric burial monuments standing on Saugh Hill including Saugh Hill barrow (11619) and Saugh Hill cairn (NMRS Ref no: NX29NW 8)				
11609	Troweir Hill, Huts; Buildings (possible)	NSR Code V	221550	595950	2	0.8	High	The remains of at least eleven huts or pens and three possible sub-rectangular buildings situated on the east flank of Troweir Hill. Situated in an area of rough pasture. Views focused out to the south downhill and taking in wide views of the lower lying hills in that direction. Views to the north are limited by a steep rise in topography.	High	High (localised)	Imperceptible	Negligible
11620	Brae Hill, Dun (possible)	NSR Code V	220955	597925	6	0.8	High	What may be the remains of a small dun are present on a knoll around 300 m to the south-west of the television mast on Brae Hill. Situated in an area of rough pasture. Views out focus primarily to the north, north-west, west and south-west taking in views out across lower coastal areas surrounding Girvan and long distance views to the North Atlantic Ocean. Views to the north-east, east and south-east being restricted by rises in topography.	High	High	Low	Minor
11644	Daldowie Hill, Enclosure	NSR Code V	222150	592750	8	4.0	High	Cropmark site situated in pasture farmland.	Negligible	Low	Imperceptible	Negligible
1148	Penkill Castle	Cat A	223151	598538	8	1.6	High	The original tower at Penkill was constructed in the 16 th century by the Boyds of Penkill. Later additions were added during the 17 th century and then the castle was left to ruin until the mid-19 th century when it was restored and a modern circular tower and wing added. At this time the castle was owned by Alice Boyd who was a friend of the Pre-Raphaelite Brotherhood and the castle was frequently visited by members of the brotherhood, including William Bell Scott and Christina Rossetti. The interior of the castle is particularly noteworthy as it contains several pre-Raphaelite murals painted by William Bell Scott. In the mid-20 th century the castle fell into disrepair but was subsequently bought and restored in the 1980s and is now a private dwelling. The castle stands on a peninsular ravine sited on the south	High	High	Low	Major / Minor

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Site no	Site name	Status	Easting	Northing	No of turbines visible	Distance to nearest turbine (km)	Sensitivity of receptor	Setting	Contribution of Setting	Sensitivity of Setting	Magnitude of Impact	Significance of Predicted Impact
								bank of the Girvan Water. It stands within the eastern edges of an area of woodland policies that form part of the Non-inventory Designed Landscape that surrounds the castle. Views out from the castle and to the castle from the B734 public road are restricted by woodland.				
1171	Bargany House	Cat A	224389	600245	8	3.8	High	The unfortified mansion house was constructed in the late 17 th century to replace an earlier tower house. The house is situated at the western end of the Bargany GDL (see below), on the south banks of the Girvan Water, standing at the edge of the woodland garden in an area of parkland that forms part of the GDL. A walled garden associated with the house is present around 200 m to the NNE. The house stands on a slightly north-facing slope. The main entrance of the house is present on its east side. The house is a private dwelling. Views to the house are limited to within the immediate surrounding woodland / parkland policies. Wider views from the surrounding landscape are restricted by the woodland policies. Similarly views from the house itself concentrate on the surrounding woodland policies and its immediate setting. Long distance views are restricted by surrounding trees.	High	High	Low	Minor
1173	Killochan Castle	Cat A	222724	600325	8	3.1	High	Killochan Castle is one of the finest fortified houses in South Scotland. The castle was built in the late 16 th century by the Cathcart Family and later extended in the 18 th century. It is now a private dwelling. Stands in woodland to the north of Old Dailly; surrounded by a formalised garden and woodland policies. Views of the house are gained from the south along a public road, views across arable fields taking in the woodland policies and the upper levels of the castle tower. Views out from the garden are restricted by surrounded woodland, although wide open views are probably gained from the upper levels of the tower, particularly to the south.	High	High	Low	Minor
1174	Killochan Castle, Stables	Cat A	222712	600348	8	3.1	High	18 th century stable block forms a wing of the main castle buildings (Killochan Castle (1173)). On the north side of the main castle block. Forms part of a private dwelling. Stands in woodland to the north of Old Dailly; surrounded by a	High	High	Low	Minor

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Site no	Site name	Status	Easting	Northing	No of turbines visible	Distance to nearest turbine (km)	Sensitivity of receptor	Setting	Contribution of Setting	Sensitivity of Setting	Magnitude of Impact	Significance of Predicted Impact
								formalised garden and woodland policies				
1145	Hawkhill	Cat B	222896	599838	8	2.6	Medium	18-19 th century farm building forming part of a working farm. Enclosed farmsteading setting, surrounded by open arable farmland. .	High	High (localised)	Low	Minor
7650	Woodlands	Cat B	217339	595184	6	4.3	Medium	18 th century farmhouse forming part of a small hamlet, situated immediately north of an associated farm steading. Enclosed setting. Now forms part of the Woodland Bay Hotel Complex. Main focus of farmhouse is Woodland Bay and the coastline out over which it looks to the northwest.	Moderate	Medium (localised)	Imperceptible	Negligible
7652	Trochrugue	Cat B	221151	600360	8	3.0	Medium	Semi-baronial mansion, 19 th century recasting and enlargement of Georgian House. Situated in small designed landscape of woodland parkland policies. Main elevations orientated southeast and northwest. Views to the southeast partially screened by woodland shelterbelt. Now used as family guest house by the Sisters of St. Joseph of Cluny.	High	High	Low	Minor
13665	Low Troweir	Cat B	219894	597571	2	1.5	Medium	19 th century farmhouse and farmstead forming part of a working farm. Enclosed farm setting surrounded by trees.	High	High (localised)	Low	Minor
32108	Girvan, The Avenue, Bloomfield	Cat B	218743	597984	4	2.7	Medium	Forms part of Girvan Conservation Area. Enclosed town setting.	High	High (localised)	Low	Minor
32109	Girvan, The Avenue Southfield	Cat B	218786	597993	4	2.7	Medium	Forms part of Girvan Conservation Area. Enclosed town setting.	High	High (localised)	Low	Minor
32112	Girvan, 18 The Avenue, Southfield	Cat B	218879	597924	4	2.6	Medium	Forms part of Girvan Conservation Area. Enclosed town setting.	High	High (localised)	Low	Minor
32115	Girvan, The Avenue, The Davidson Hospital	Cat B	218918	597965	4	2.5	Medium	Forms part of Girvan Conservation Area. Enclosed town setting.	High	High (localised)	Low	Minor
32116	Girvan, Church Square, St Andrew's Church	Cat B	218701	598022	4	2.8	Medium	Forms part of Girvan Conservation Area. Enclosed town setting.	High	High (localised)	Low	Minor
32117	Girvan, 1-2 Church Square	Cat B	218698	598108	4	2.8	Medium	Forms part of Girvan Conservation Area. Enclosed town setting.	High	High (localised)	Low	Minor
32122	Girvan, 17 Dalrymple Street Bank of Scotland	Cat B	218576	598010	4	2.9	Medium	Forms part of Girvan Conservation Area. Enclosed town setting.	High	High (localised)	Low	Minor
32124	Girvan, Dalrymple Street, Methodist	Cat B	218587	597726	4	2.8	Medium	Forms part of Girvan Town. Enclosed town setting.	High	High (localised)	Low	Minor

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Site no	Site name	Status	Easting	Northing	No of turbines visible	Distance to nearest turbine (km)	Sensitivity of receptor	Setting	Contribution of Setting	Sensitivity of Setting	Magnitude of Impact	Significance of Predicted Impact
	Church and Halls											
32125	Girvan 14, 16-18 Dalrymple Street Royal Bank of Scotland	Cat B	218549	598006	4	2.9	Medium	Forms part of Girvan Conservation Area. Enclosed town setting.	High	High (localised)	Low	Minor
32129	Girvan, Dalrymple Street, Mckechnie Institute and Reading Rooms	Cat B	218552	597941	4	2.9	Medium	Forms part of Girvan Conservation Area. Enclosed town setting.	High	High (localised)	Low	Minor
32134	Girvan, 14-16 Hamilton Street, Forestry Commission and Department of Employment	Cat B	218615	598061	4	2.9	Medium	Forms part of Girvan Conservation Area. Enclosed town setting.	High	High (localised)	Low	Minor
32135	Girvan, Hamilton Street, Woolwich Building Society	Cat B	218673	598062	4	2.8	Medium	Forms part of Girvan Town. Enclosed town setting.	High	High (localised)	Low	Minor
32136	Girvan, 2 Bridge Street, Halifax Building Society	Cat B	218577	598088	4	2.9	Medium	Forms part of Girvan Conservation Area. Enclosed town setting.	High	High (localised)	Low	Minor
32148	Girvan, Knockcushan Street, Town Hall Tower, Girvan Steeple	Cat B	218532	598060	4	2.9	Medium	Forms part of Girvan Conservation Area. Enclosed town setting.	High	High (localised)	Low	Minor
32149	Girvan, 17, 19 Knockcushan Street, Council Office	Cat B	218470	598051	4	3.0	Medium	Forms part of Girvan Conservation Area. Enclosed town setting.	High	High (localised)	Low	Minor
32150	Girvan, Knockcushan House	Cat B	218200	598000	6	3.2	Medium	Forms part of Girvan Town. Enclosed town setting.	High	High (localised)	Low	Minor
32151	Girvan, 1 Montgomerie Street, Queen's Hotel	Cat B	218720	598120	4	2.8	Medium	Forms part of Girvan Conservation Area. Enclosed town setting.	High	High (localised)	Low	Minor
32154	Girvan, Montgomerie Street, North Parish Church	Cat B	218765	598128	4	2.7	Medium	Forms part of Girvan Conservation Area. Enclosed town setting.	High	High (localised)	Low	Minor

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Site no	Site name	Status	Easting	Northing	No of turbines visible	Distance to nearest turbine (km)	Sensitivity of receptor	Setting	Contribution of Setting	Sensitivity of Setting	Magnitude of Impact	Significance of Predicted Impact
32155	Girvan, Old Street, Girvan Old Church Yard (Burial-Ground)	Cat B	218641	598260	6	2.9	Medium	Forms part of Girvan Town. Enclosed town setting.	High	High (localised)	Low	Minor
32157	Girvan, Strathaven Caravan Park formerly The Manse	Cat B	218531	598567	6	3.1	Medium	Forms part of Girvan Town. Enclosed town setting.	High	High (localised)	Low	Minor
50007	Girvan Station including Signal Box	Cat B	219037	598368	6	2.6	Medium	Forms part of Girvan Town. Enclosed town setting.	High	High (localised)	Low	Minor
1143	Craighead Farm	Cat C(S)	223623	601280	8	4.3	Low	Early 19 th century farmhouse forming part of a working farm. Enclosed farm setting. Main SSE elevation overlooking the B741 public road, views out in this direction partially screened by vegetation. NNW elevation overlooking farmstead.	High	Medium (localised)	Imperceptible	Negligible
1147	Penkill Farm	Cat C(S)	223156	598658	8	1.7	Low	19 th century farmhouse forming part of working farm. Surrounded by modern farm sheds on west and south side. Main elevation views out to the northeast overlooking arable farmland and to the southwest focusing on the farmsteading.	High	Medium (localised)	Low	Minor
32101	Girvan, 1, 3, 5, 7, 9 Ailsa Place	Cat C(S)	218500	597979	6	2.9	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32102	Girvan, 2 and 4 (Now One House) Ailsa Place	Cat C(S)	218517	597951	6	2.9	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32103	Girvan, 6 Ailsa Place	Cat C(S)	218517	597971	6	2.9	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32104	Girvan, The Avenue Mccrindle and 4	Cat C(S)	218732	598033	4	2.7	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32105	Girvan, 6, 8 The Avenue	Cat C(S)	218739	598030	4	2.7	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32106	Girvan, 10 The Avenue	Cat C(S)	218755	598020	4	2.7	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32107	Girvan, 12, 14 The Avenue	Cat C(S)	218766	598015	4	2.7	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32110	Girvan, The Avenue Mansfield	Cat C(S)	218837	597956	4	2.6	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor

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Site no	Site name	Status	Easting	Northing	No of turbines visible	Distance to nearest turbine (km)	Sensitivity of receptor	Setting	Contribution of Setting	Sensitivity of Setting	Magnitude of Impact	Significance of Predicted Impact
32111	Girvan, 26 The Avenue	Cat C(S)	218867	597935	4	2.6	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32113	Girvan, Parkhall and 34a The Avenue	Cat C(S)	218937	597885	4	2.5	Low	Forms part of Girvan Town. Enclosed town setting.	High	Medium (localised)	Low	Minor
32114	Girvan, 11, 15, 17 The Avenue	Cat C(S)	218780	598031	4	2.7	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32118	Girvan, 3 Church Square	Cat C(S)	218707	598106	4	2.8	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32119	Girvan, 1 To 7 (Odd) Dalrymple Street	Cat C(S)	218574	598053	4	2.9	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32120	Girvan, Grasshopper, 9, 11 Dalrymple Street	Cat C(S)	218574	598036	4	2.9	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32121	Girvan, 13, 15 Dalrymple Street	Cat C(S)	218582	598028	4	2.9	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32123	Girvan, 19, 21, 23 Dalrymple Street	Cat C(S)	218577	597989	4	2.9	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32126	Girvan, The Post Office Dalrymple Street	Cat C(S)	218549	597994	4	2.9	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32127	Girvan, 26, 28, 30, 32 Dalrymple Street	Cat C(S)	218548	597979	4	2.9	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32128	Girvan, 34, 36, 38, 38a, 40 Dalrymple Street	Cat C(S)	218553	597951	4	2.9	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32130	Girvan, 124, 126 Dalrymple Street	Cat C(S)	218535	597655	4	2.8	Low	Forms part of Girvan Town. Enclosed town setting.	High	Medium (localised)	Low	Minor
32131	Girvan, 134, 136 Dalrymple Street	Cat C(S)	218531	597617	4	2.8	Low	Forms part of Girvan Town. Enclosed town setting.	High	Medium (localised)	Low	Minor
32132	Girvan, Duff Street McWilliam and Son	Cat C(S)	218448	597458	4	2.9	Low	Forms part of Girvan Town. Enclosed town setting.	High	Medium (localised)	Low	Minor
32133	Girvan, Hamilton Street Pet Shop	Cat C(S)	218578	598061	4	2.9	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor
32137	Girvan, 13 Harbour Street	Cat C(S)	218308	598002	6	3.1	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localised)	Low	Minor

APPENDIX NINE: CULTURAL HERITAGE CHAPTERS

Site no	Site name	Status	Easting	Northing	No of turbines visible	Distance to nearest turbine (km)	Sensitivity of receptor	Setting	Contribution of Setting	Sensitivity of Setting	Magnitude of Impact	Significance of Predicted Impact
32138	Girvan, 15 Harbour Street	Cat C(S)	218309	597993	6	3.1	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localized)	Low	Minor
32139	Girvan, 17 Harbour Street	Cat C(S)	218310	597971	6	3.1	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localized)	Low	Minor
32140	Girvan, 6 Harbour Street	Cat C(S)	218282	598027	6	3.2	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localized)	Low	Minor
32141	Girvan, 8-10 Harbour Street	Cat C(S)	218284	598021	6	3.2	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localized)	Low	Minor
32142	Girvan, 12-14 Harbour Street	Cat C(S)	218284	598003	6	3.2	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localized)	Low	Minor
32143	Girvan, 16-18 Harbour Street	Cat C(S)	218286	597992	6	3.2	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localized)	Low	Minor
32144	Girvan, 20 Harbour Street	Cat C(S)	218286	597983	6	3.2	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localized)	Low	Minor
32145	Girvan, 22, 24 Harbour Street	Cat C(S)	218286	597973	6	3.2	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localized)	Low	Minor
32146	Girvan, 26, 28 Harbour Street	Cat C(S)	218285	597961	6	3.1	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localized)	Low	Minor
32147	Girvan, 30, 32 Harbour Street	Cat C(S)	218284	597943	6	3.1	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localized)	Low	Minor
32152	Girvan, 10 Montgomerie Street	Cat C(S)	218748	598104	4	2.7	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localized)	Low	Minor
32153	Girvan, 8 Montgomerie Street	Cat C(S)	218743	598088	4	2.7	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localized)	Low	Minor
32156	Girvan, Old Street, Ailsa Arms Hotel	Cat C(S)	218751	598394	6	2.8	Low	Forms part of Girvan Town. Enclosed town setting.	High	Medium (localized)	Low	Minor
32158	Girvan, 15 Henrietta Street	Cat C(S)	218380	597974	6	3.1	Low	Forms part of Girvan Conservation Area. Enclosed town setting.	High	Medium (localized)	Low	Minor
50006	Bridge Mill	Cat C(S)	219352	598921	6	2.6	Low	Mid-19 th century former mill buildings. Located just north of the River of Girvan. Immediately east and overlooked by the A71 carriageway. Abutting a later dwelling house and immediately west of a number of large industrial sheds. In a dilapidated state.	Moderate	Low (localized)	Low	Negligible
	Bargany	GDL	225042	600778	8	4.6	High	A large designed landscape comprising approximately 500 hectares of woodland and parkland policies. The gardens were laid out by W.S. Gilpin in the mid-19 th century and	High	High	Low	Minor

APPENDIX NINE: CULTURAL HERITAGE CHAPTERS

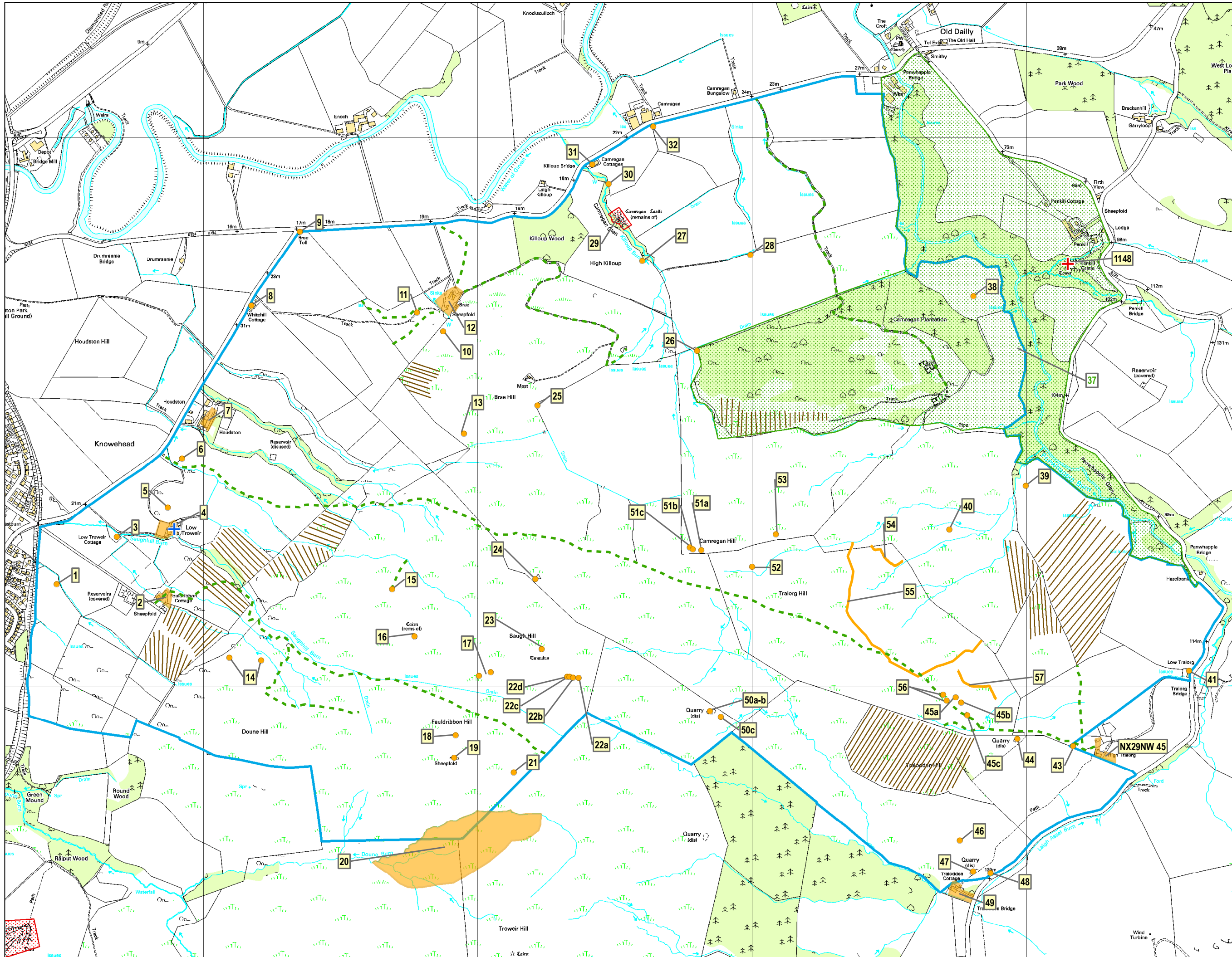
Site no	Site name	Status	Easting	Northing	No of turbines visible	Distance to nearest turbine (km)	Sensitivity of receptor	Setting	Contribution of Setting	Sensitivity of Setting	Magnitude of Impact	Significance of Predicted Impact
								provide the setting for Category A Listed Bargany House and several other designed landscape features including a walled garden, gate lodge, boat house and sundial. The designed landscape is considered by the Inventory to be of outstanding value as a work of art as it is an excellent example of W.S. Gilpins work and also has outstanding scenic value as its woods and parks contribute particularly to the surrounding landscape character. The designed landscape makes us of the setting in the valley of the Girvan Water and views are gained from the south across the parkland; while from the north the woodlands that form the northern boundary of the designed landscape provide a significant woodland landscape through which the B741, B734 and the Girvan railway line run. The eastern end of the GDL now forms part of the Brunston Castle Golf Course. The woodland gardens of the GDL are open to the public for a few weeks each year in May.				
	Penkill (Castle)	NIDL	222702	598373	8	1.2	Medium	Fragmentary designed landscape, comprising of both mixed woodland plantation and parkland surrounding Penkill Castle. Was principally laid out in the mid-19 th century by the then owner of Penkill Castle, Alice Boyd. Setting for Category A Listed Penkill Castle (1148) and Category C(S) Penkill Farm (1147) which stand at the eastern edge of the woodland policies. Includes Camregan Plantation and woodland that run down the banks of	Moderate	Medium	Low	Minor
	Girvan	CA	218584	597975	4	2.9	Medium	Girvan Conservation Area includes over 60 Listed Buildings. The conservation area covers the historic core of the settlement. Enclosed town setting. Listed buildings within the conservation area comprise particularly of small shops and town houses which look out onto the main streets of the town and are clustered around the towns harbour.	High	High	Low	Minor

APPENDIX 9.3 KEY CULTURAL HERITAGE ASSETS BETWEEN 5-10 KM OF FROM THE NEAREST TURBINE – EXCLUDES CATEGORY C(S) LISTED BUILDINGS, NON-INVENTORY DESIGNED LANDSCAPES AND NSR SITES

Site no	Site name	Status	Easting	Northing	Sensitivity of receptor	No of turbines visible	Distance to nearest turbine (km)
316	Dalquharran Castle (Old Castle)	Scheduled Monument	227234	601874	High	8	6.9
2194	Hollowshean Camp,fort	Scheduled Monument	224426	606129	High	8	9.1
5387	Drummochreen,house	Scheduled Monument	227975	602621	High	8	7.9
5595	Dowhill Mount,dun and earthwork	Scheduled Monument	220289	602943	High	8	5.7
125	Dalquharran Castle including Stable Range	Category A Listed	227055	602161	High	8	6.9
1119	Drumburle	Category A Listed	228946	603089	High	8	8.9
1142	Dalquharran Castle (Ruin)	Category A Listed	227255	601877	High	8	6.9
1118	Aird Bridge	Category B Listed	229321	603332	Medium	8	9.4
1120	"Gigmagog" Formerly Mains Cottage	Category B Listed	229230	603162	Medium	8	9.2
1139	Parish Church of New Dailly and Churchyard	Category B Listed	227041	601615	Medium	8	6.5
1140	Dailly, Parish Manse	Category B Listed	227241	601712	Medium	8	6.8
6705	Brunston Castle	Category B Listed	226083	601181	Medium	8	5.6
7591	Turnberry Lodge Farm	Category B Listed	220474	605558	Medium	8	8.3
7618	Turnberry Hotel	Category B Listed	220571	605863	Medium	8	8.6
	Kilkerran	GDL	230511	603044	High	8	10.1



- Key:**
- Site Option Area
 - Scheduled Monument
 - + Listed Building Category A
 - + Listed Building Category B
 - Non-inventory Garden and Designed Landscape (Site 37)
 - Cultural Heritage Site (point)
 - Cultural Heritage Site (line)
 - Cultural Heritage Site (area)
 - OS 1st Edition Track (Site 59)
 - Rig and Furrow (Site 58)



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Fig. No: 10.1 Revision:

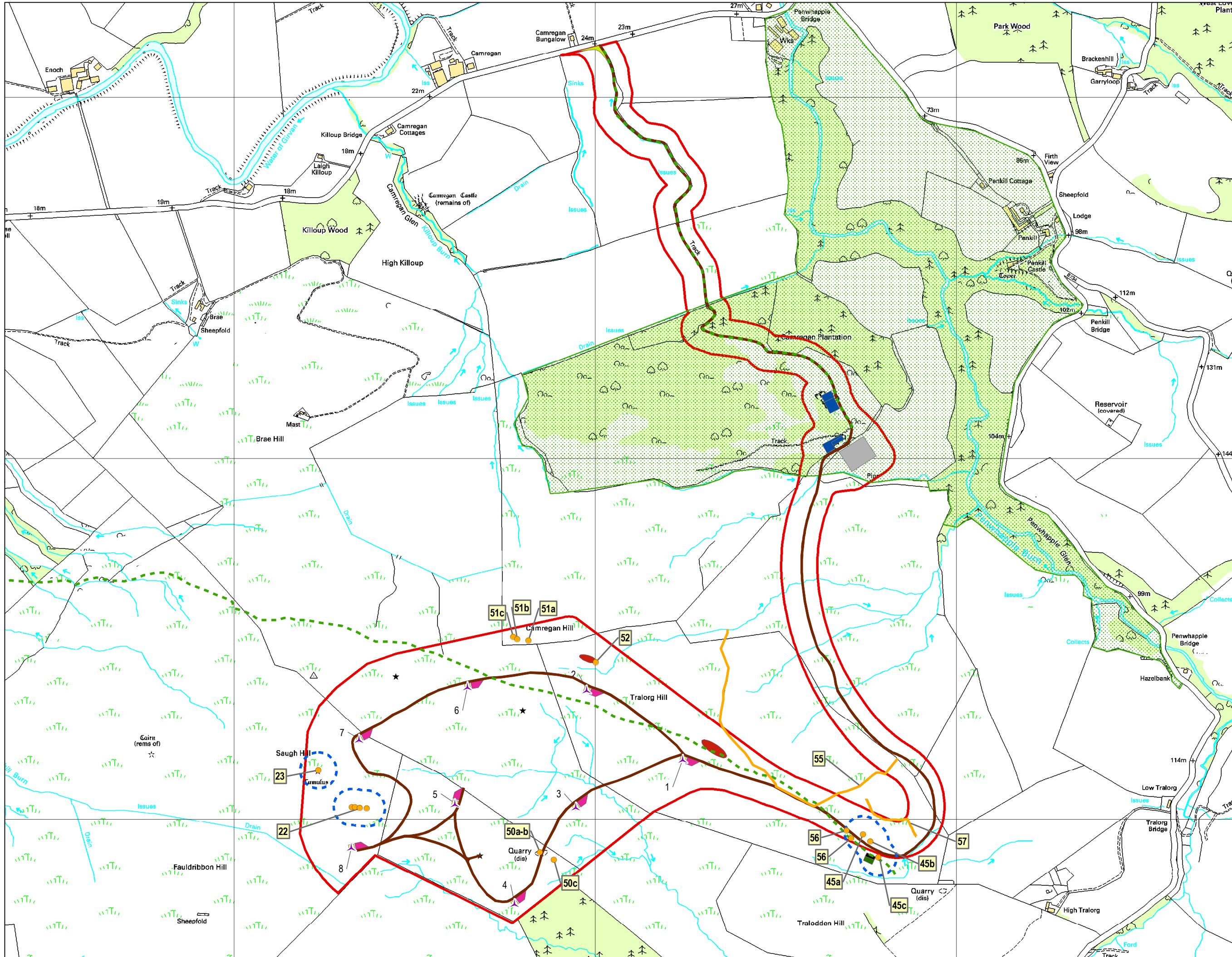
Title:
**Cultural Heritage Constraints:
 Study Area**

Project:
Tralorg Wind Farm

Scale at A3:
1:12,500

Client:
Atmos Consulting Ltd

Drawn by: SW Report No:



- Key:**
- Site Boundary
 - ▲ Turbine Location
 - Access Track
 - Control building
 - Turbine Foundation
 - Crane hardstanding
 - Dolerite borrow pit
 - Laydown area
 - Borrow pit
 - Substation
 - Bell Mouth
 - ★ Met Mast
 - Cultural Heritage Site (point)
 - Cultural Heritage Site (line)
 - OS 1st Edition Track (Site 59)
 - Non-inventory Garden and Designed Landscape (Site 37)
 - 50m Buffer

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Fig. No: 10.2 Revision:

Title:
**Cultural Heritage Constraints:
 Proposed Development Area**

Project:
Tralorg Wind Farm

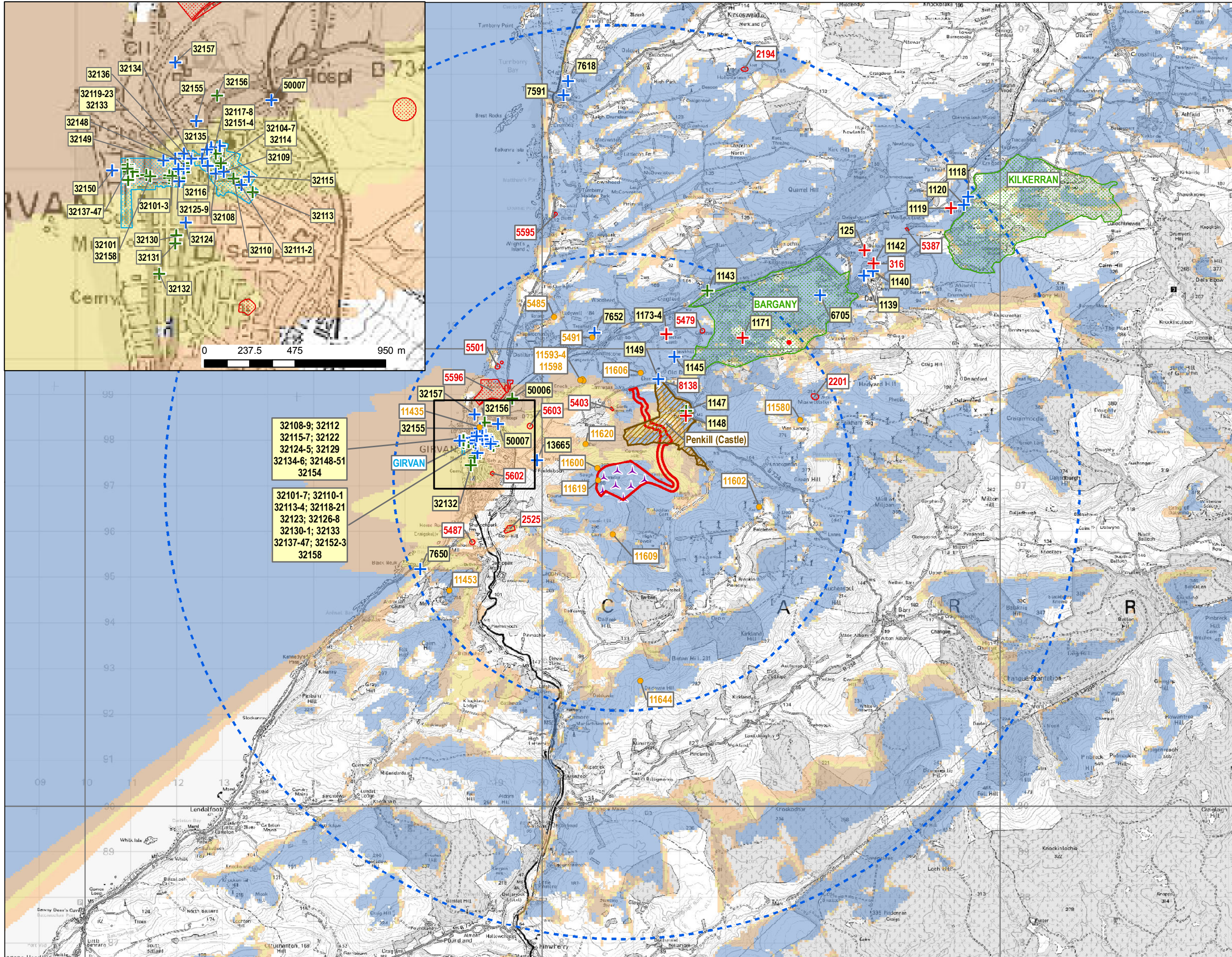
Scale at A3:
1:9,500

Client:
Atmos Consulting Ltd

Drawn by: SW Report No:



- Key:
- Site Boundary
 - + Turbine Location
 - Scheduled Monument
 - + Listed Building Category A
 - + Listed Building Category B
 - + Listed Building Category C(S)
 - NSR Site code C or V
 - Conservation Area
 - Garden and Designed Landscape
 - NIDL Area
 - 5km and 10km Buffer



32108-9; 32112
 32115-7; 32122
 32124-5; 32129
 32134-6; 32148-51
 32154

32101-7; 32110-1
 32113-4; 32118-21
 32123; 32126-8
 32130-1; 32133
 32137-47; 32152-3
 32158

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Fig. No: 10.3 Revision:

Title:
External Receptors and ZTV

Project:
Tralorg Wind Farm

Scale at A3:
1:75,000

Client:
Atmos Consulting Ltd

Drawn by: SW Report No: