A. Technical Appendix 6.1: Methodology

A.1 Introduction

A.1.1 "*Landscape and Visual Impact Assessment is a tool used to identify and assess the significance of and the effects of change resulting from development on both the landscape as an environmental resource in its own right and people's views and visual amenity.*" (GLVIA3, paragraph 1.1). Wherever possible, identified effects are quantified, but the nature of landscape and visual assessment requires interpretation by professional judgement. In order to provide a level of consistency to the assessment, the prediction of magnitude and assessment of significance of the residual landscape and visual effects have been based on pre-defined criteria.

A.1.2 The Guidelines for Landscape and Visual Assessment (Third Edition) (GLVIA3) states that "professional judgement is a very important part of the LVIA" (paragraph 2.23) and that "in all cases there is a need for the judgements that are made to be reasonable and based on clear and transparent methods so that the reasoning applied at different stages can be traced and examined by others." (paragraph 2.24). It goes on at paragraph 3.32 to state that "there are no hard and fast rules about what effects should be deemed 'significant" but LVIAs should always distinguish clearly between what are considered to be the significant and non-significant effects."

A.1.3 Landscape and Visual Assessments are separate, though linked processes which GLVIA3 notes are "related but very different considerations". The assessment of the potential effect on the landscape is carried out as an effect on the environmental resource (i.e. the landscape). Visual effects are assessed as an inter-related effect on people.

A.1.4 Landscape effects derive from changes in the physical landscape elements which may give rise to changes in its distinctive character and how this is experienced, including consideration of aesthetic and perceptual aspects.

A.1.5 Visual effects relate to changes that arise in the composition of available views as a result of changes to the landscape, to people's responses to the changes and to the overall effects with respect to visual amenity.

A.2 Establishing the Baseline

A.2.1 The **baseline** for consideration of landscape and visual effects is evaluated through desk study and site work and is the current situation at the time of the assessment, unless noted otherwise. Operational developments and those under construction

are considered as part of the baseline and included as part of the assessment of landscape and visual effects.

A.2.2 The **future baseline** is considered to be changes to the landscape which are considered certain or likely to happen – including consented proposals which are not yet present in the landscape but are expected to be constructed. These may or may not be included as part of the landscape and visual baseline depending on individual project circumstances and the approach and reasoning is set out within the assessment.

A.3 Landscape Effects

A.3.1 The starting point for any assessment is a desk based assessment of published landscape studies, which may include landscape character assessments, sensitivity and capacity studies and/or landscape designation reviews. These documents are listed in the assessment references and relevant extracts may be included as appendices where this is judged appropriate.

A.3.2 The landscape effects of the Proposed Development are considered against the key characteristics of the receiving landscape. The degree to which the Proposed Development changes '*distinct and recognisable pattern of elements, or characteristics, in the landscape that make one landscape different from another, rather than better or worse*' ('An Approach to Landscape Character Assessment', Natural England, 2014), enables a judgement to be made as to the significance of the effect in landscape character terms.

A.3.3 Direct and indirect landscape effects are defined in GLVIA3. Direct effects may be defined as resulting *"directly from the development itself"* (paragraph 3.22). An indirect (or secondary) effect is one that results *"from consequential change resulting from the development"* (paragraph 3.22) and is often produced away from the site of the Proposed Development or as a result of a complex pathway or secondary association. The direct or physical landscape effects of the Proposed Development would generally be limited to within the planning application boundary. The indirect landscape effects are concerned with the visual effects and relate to effects associated with the introduction of the development seen in the context of the existing landscape and visual character of the view.

A.3.4 In order to reach an understanding of the effects of development upon the landscape resource it is necessary to consider different aspects of the landscape baseline including:

- **Landscape Fabric/Elements**: The individual features of the landscape, such as hills, valleys, woods, hedges, tree cover, vegetation, buildings and roads for example which can usually be described and quantified.

- **Landscape key characteristics**: The particularly notable elements or combinations of elements which make a particular contribution to defining or describing the character of an area, which may include experiential characteristics such as wildness and tranquillity.

A.3.5 The **sensitivity** (high, medium, low) of the landscape to a particular development is considered on a case by case basis and considers the susceptibility of the landscape, which varies depending on the type of development proposed and the particular site location, and the landscape value (identified as national, regional, or community). As stated in GLVIA3, '*LVIA sensitivity is similar to the concept of landscape sensitivity used in the wider arena of landscape planning, but is not the same*'.

A.3.6 **Landscape value**: The importance attached to a landscape, often used as a basis for designation or recognition which expresses national or local authority consensus, because of its special qualities/attributes. The factors which are considered in landscape include aesthetic or perceptual aspects such as scenic beauty, tranquillity or wildness or cultural associations as well as recreational/community value, conservation interests, landscape character and condition and representativeness/rarity.

A.3.7 **Landscape susceptibility** according to GLVIA3 means "the ability of the landscape to accommodate the proposed Development without undue consequences for maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies". Judgements on landscape susceptibility (high, medium, low) include references to both the physical and aesthetic characteristics and the potential scope for mitigation.

A.3.8 Susceptibility of landscape character areas are influenced by their characteristics and are often considered (though often recorded as 'sensitivity' rather than susceptibility) within landscape character assessments and capacity studies.

A.3.9 Susceptibility of designated landscapes is influenced by the nature of the special qualities and purposes of designation and/or the valued elements, qualities or characteristics, indicating the degree to which these may be unduly affected by the development proposed.

A.3.10 The criteria and the detailed judgements regarding susceptibility and value of landscape receptors are identified within the sensitivity tables included within Appendix 6.3 to this assessment.

A.3.11 Sensitivity is judged taking into account the component judgments about the value and susceptibility of the receptor as illustrated by the table below. Where sensitivity is judged to lie between levels, an intermediate assessment will be adopted.

		Susceptibility		
		High	Medium	Low
Value	National	High	High/Medium	Medium
	Regional	High/Medium	Medium	Medium/Low
	Community	Medium	Medium/Low	Low

A.3.12 The **magnitude of landscape change** arising from the Proposed Development at any particular location is assessed in terms of its size or scale, geographic extent of the area or receptor that is influenced and its duration and reversibility.

A.3.13 The **scale** of the change takes account of:

- degree of loss or alteration to key landscape features/elements; characteristics; and for designated areas – special qualities and/or purposes of designation;
- distance from the development;
- landscape context to the development;

A.3.14 The approach to assessing effects on landscape character is to consider the key characteristics for the Landscape Character Type (LCT) within which the Proposed Development is located (host) and the adjacent LCT's (non-host) and identify which of these the Proposed Development would affect. For the host LCTs, a large scale change in landscape character is likely to occur where key characteristics would be lost or substantially changed. Where particular views are a key characteristic of a landscape type, large or medium scale landscape character effects may occur where the Proposed Development becomes a key feature of those views. A similar approach applies to designated landscapes, for which the effects on the defined purposes of designation and special qualities are considered.

A.3.15 Having established the size/scale of change (large, medium, small, negligible) to the landscape baseline, the geographic **extent** of the change can be identified (wide, intermediate, localised or limited) and a judgement made as to the degree of change for each landscape receptor.

A.3.16 **Duration** and reversibility can be linked depending on the nature of the development. Reversibility is a judgement about the ability and practicality of the Proposed Development to be reversible (such as wind farms which are predominantly reversible), partially reversible to something similar (such as mineral extraction[1]) or a permanent change in the landscape (such as housing). Duration reflects how long the change will last. The duration of the change would be considered short term when lasting less than 2 years; medium term when lasting

[1] GLVIA3 page 91, paragraph 5.52

between 2 and 10 years; or long term when lasting between 10 and 25 years, and permanent for more than 25 years.

A.3.17 Magnitude is considered taking into account the three contributory factors as illustrated by the diagrams included at section A.5 below.

A.4 Visual Effects

A.4.1 In order to identify the significance of a visual effect it is necessary to establish the relative sensitivity of the viewers and the magnitude of the change they experience. In this case sensitivity is a combination of both susceptibility of the viewer to the Proposed Development and the value of the views obtained.

A.4.2 Those living within view of the scheme are usually regarded as the highest susceptibility group as well as those engaged in outdoor pursuits for whom landscape experience is the primary objective. The susceptibility of potential visual receptors will also vary depending on the activity of the receptor. For visual receptors susceptibility and value are closely linked - the most valued views are also likely to be those where viewer's expectations will be highest.

A.4.3 The **value** of public views, which is the focus of GLVIA3, is identified as national, regional or community and will vary depending on the nature, location and context of the view and the recognised importance of the view. Considerations include cultural associations; designation or policy protection; views of or from landmarks; and/or the scenic quality of the view. The value attributed relates to the value of the view, e.g. a National Trail is nationally valued for access, but not always for the available views from every section.

A.4.4 Visual receptor **susceptibility** is defined as high, medium, or low in accordance with the criteria below.

- High - Local residents; users of outdoor recreation focussed on the appreciation of views including footpaths, beauty spots and picnic areas; people experiencing views to or from important features of physical, visual, cultural or historic interest.
- Medium - Local road users and travellers on trains. People engaged in outdoor recreation with some appreciation of the landscape e.g. road cycling, nature conservation, golf and water based recreation.
- Low - Workers, users of facilities and commercial buildings (indoors) experiencing views from buildings. Road and rail users on fast moving commuting or trunk routes. Visual receptors where views are incidental to the activity and/or location.

A.4.5 Sensitivity is judged taking into account the component judgments about the value and susceptibility of the receptor as illustrated by the table below. Where sensitivity is judged to lie between levels, an intermediate assessment will be adopted.

		Susceptibility		
		High	Medium	Low
Value	National	High	High/Medium	Medium
	Regional	High/Medium	High/Medium	Medium/Low
	Community	High/Medium	Medium	Low

A.4.6 The **magnitude of visual change** arising from the Proposed Development at any particular location is assessed in terms of its size or scale (large, medium, small, negligible), geographic extent of the area or receptor that is influenced (wide, localised, limited) and its duration (short, medium, long, permanent).

A.4.7 The representative viewpoints are used as 'samples' on which to base judgements of the scale of effects on visual receptors. The wider extent of the effect and its duration are not captured in the viewpoint analysis (as a viewpoint cannot capture these factors for an entire route or area). As duration and extent are necessary considerations in determining magnitude of change; magnitude and significance judgements are provided for visual receptors and not for all representative viewpoints. The exceptions to this are specific viewpoints – where people visiting that location to look at the view are assessed as a visual receptor group.

A.4.8 With the exception of specific viewpoints, each route and receptor group will encompass a range of possible views, which might vary from no view of the development to very clear, close views. Therefore effects are described in such a way as to identify where views towards the development are likely to arise and what the scale and duration and **extent** (wide, intermediate, Localised, Limited) of those views are likely to be. In some cases this will be further informed by a nearby viewpoint and in others it will be informed with reference to ZTV studies, aerial photography and site visits. Each of these individual effects are then considered together in order to reach a judgement of the effects on the visual receptors along that route, or in that place.

A.4.9 The **scale of effect** arising from the Proposed Development at any particular viewpoint reflects the degree to which the nature of the views from that location would be changed and is taking into account:

- The distance of the viewpoint from the development;
- the degree to which the development is visible or screened;
- the angle of view in relation to main receptor activity or main focus of the view;
- the horizontal and vertical field of view occupied by the development; and

- the extent and nature of other built development visible.

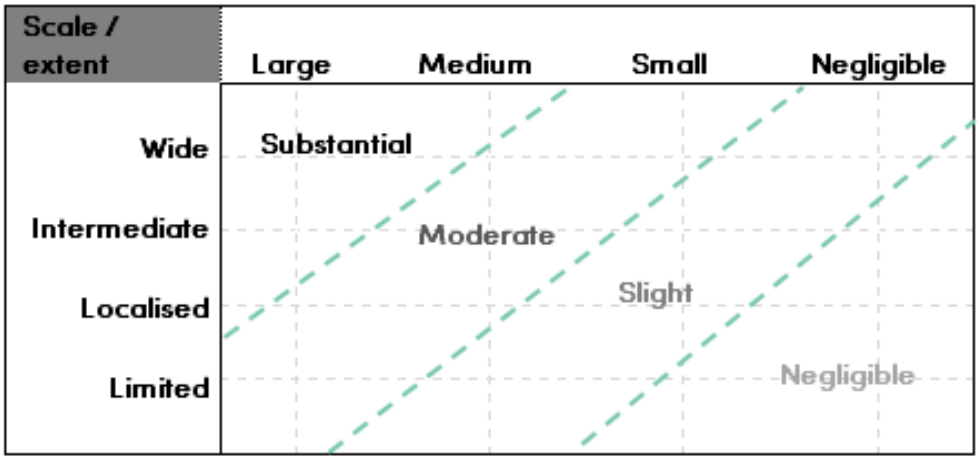
A.4.10 The approach to assessing effects on views is to consider the full 360 degree view from any given receptor – not just those towards the development and/or shown in visualisations. It is assumed that the change would be seen in clear visibility and the assessment is carried out on that basis. Where there are operational (and consented) developments considered as part of the baseline, the visual effects consider the effects of adding the Proposed Development to that baseline. Where appropriate, comment may be made on lighting and weather conditions.

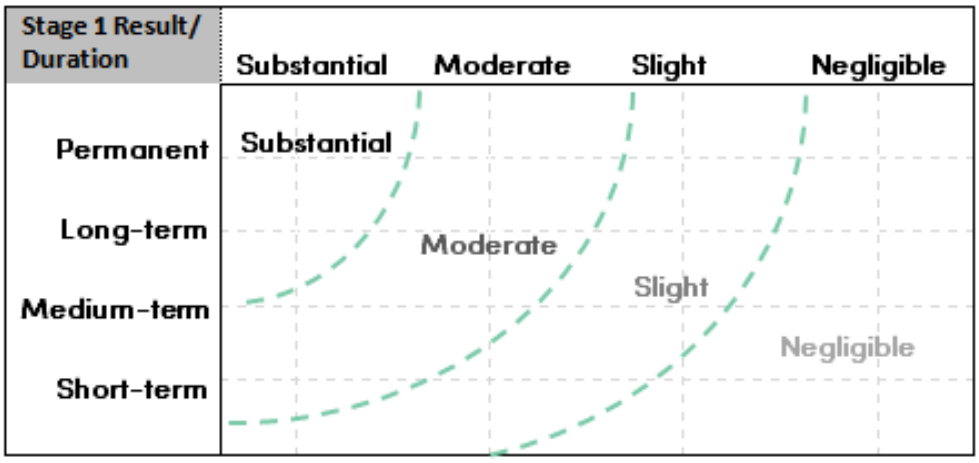
A.4.11 **Duration** reflects how long the change will last and are rated in the same way as described above for landscape effects. The effects as a result of the Proposed Development would be considered short term when lasting less than 2 years; medium term when lasting between 2 and 10 years; or long term when lasting between 10 and 25 years, and permanent for more than 25 years. For visual receptors moving through the landscape (e.g. road and rail users), the length of their journey during which they would see the development is reflected in the judgement of the geographic extent of effects.

A.4.12 Magnitude is considered taking into account the three contributory factors as illustrated by the diagrams included at section A.5 below.

A.5 Magnitude of Landscape and Visual Change

A.5.1 Scale of effect is the first factor in determining magnitude; which may be higher if the effect is particularly widespread and/or long lasting, or lower if it is constrained in geographic extent and/or timescale. The tables below illustrate how this judgement is considered as a two-step process. Firstly, scale and extent are considered, for which the outcomes are illustrated by the first part of the table; the second part of the table illustrates the influence of duration on this initial judgement. Where magnitude is judged to lie between levels, an intermediate assessment will be adopted.





A.6 Significance of Landscape and Visual Effects

A.6.1 The significance of any identified landscape or visual effect is assessed as major, moderate, minor or negligible. These categories are based on the consideration of sensitivity with the predicted magnitude of change. The table below is not used as a prescriptive tool and illustrates the typical outcomes, allowing for the exercise of professional judgement. In some instances a particular parameter may be considered as having a determining effect on the analysis.

		Magnitude of Change			
		Substantial	Moderate	Slight	Negligible
Receptor Sensitivity	High	Major	Major/ Moderate	Moderate	Minor
	Medium	Major/ Moderate	Moderate	Moderate/ Minor	Minor/ Negligible
	Low	Moderate	Moderate/ Minor	Minor	Negligible

A.6.2 Where the effect has been classified as Major or Major/Moderate this is considered to be equivalent to likely significant effects referred to in the EIA Regulations. Where 'Moderate' effects are predicted, professional judgement will be applied to ensure that the potential for significant effects arising has been thoroughly considered.

A.7 Beneficial/ Adverse

A.7.1 Landscape and visual effects can be beneficial or adverse and in some instances may be considered neutral. Neutral effects are those which overall are neither adverse nor positive but may incorporate a combination of both. Whether an effect is beneficial, neutral or adverse is identified based on professional judgement. GLVIA 3rd edition indicates at paragraph 2.15 that this is a "*particularly challenging*" aspect of assessment, especially in the context of a changing landscape.

A.8 Cumulative Effects

A.8.1 In a broad generic sense, cumulative impacts '*result from the incremental changes caused by other past, present or reasonably foreseeable actions together with the project.*'[2] However, an assessment of cumulative effects should focus on whether there are any potential cumulative impacts which are reasonably foreseeable and which are likely to influence the decision making of the Proposed Development, rather than an assessment of every potential cumulative effect[3], which in practice means focussing on other nearby development proposals and the effects that might arise from the combined influence of those developments on landscape and visual receptors.

A.8.2 As recommended by the SNH cumulative guidance, this assessment focusses on the 'additional cumulative change which would be brought about by the Proposed Development' (paragraph 70).

A.8.3 As noted above, operational developments are included in the baseline. Consented development which are expected to be constructed, form part of the future baseline and will be included as such. However, where there is some uncertainty regarding the future construction of consented developments, they may be considered as the first scenario of the cumulative assessment.

A.8.4 Proposals in planning considered where there is good reason to assume that the timing of decisions may be similar and significant cumulative effects are likely. The assessment of effects is considered within the cumulative assessment. The pattern of development is considered for projects individually and in combination, where appropriate.

A.8.5 Proposals in scoping are noted but not considered within the cumulative assessment, as there is no certainty that these proposals will progress to planning submissions and the nature of the proposed schemes may be subject to change.

A.8.6 The assessment is based on the same landscape and visual baseline and receptor groups as the main LVIA, and the methodology is also the same in terms of forming and expressing judgements.

A.8.7 Cumulative effects on landscape receptors arise from combined direct and/or indirect effects on the same receptor – such as two developments within the same

[2] GLVIA3 page 120, paragraph 7.1 quoting Hyder, 1999 ' *Guidelines for the assessment of indirect and cumulative impacts as well as impact interactions*'

[3] GLVIA3 page 121 paragraph 7.5.

character area; or one development within, and one visible from, a designated area.

A.8.8 Cumulative effects on visual receptors arise either from two (or more) developments both being visible from the same place; or from sequential views as people travel.

A.8.9 In order to simplify what may otherwise be a complex assessment, the following approaches are also used:

- The cumulative assessment considers scenarios within which developments may be 'grouped' – for instance two nearby cumulative proposals may be considered in one scenario if it is considered that the cumulative effects arising if one or both are developed are likely to be similar.
- Receptors judged to receive Negligible or Slight-Negligible magnitude effects are not considered for cumulative effects on the basis that any significant effects arising would primarily be caused by the cumulative developments and would be unlikely to be contributed to by the Proposed Development.
- Only those receptors judged likely to experience effects from the cumulative development(s) being considered within a given scenario are described within that scenario.

A.8.10 Qualitative assessment of design and aesthetic considerations arising as a result of cumulative development, and/or considerations set out within local guidance provided in relation to cumulative development, is also provided where relevant.

ANNEX 1: GLOSSARY OF TERMS

Term	Definition
CLVIA	Cumulative Landscape and Visual Impact Assessment.
Cumulative Effects	Cumulative effects are the additional effects arising from changes caused by a development in conjunction with other past, present or reasonably foreseeable actions.
Direct Effect	A direct (or primary) effect may be defined as an effect that is directly attributable to the development.4
GLVIA3	*'Guidelines for Landscape and Visual Impact Assessment, Third Edition'*, published jointly by the Landscape Institute and Institute of Environmental Management and Assessment 2013.
Indirect Effect	An indirect (or secondary) effect is an effect that results indirectly from the proposed project as a consequence of the direct effect, often occurring away from the site, or as a result of a sequence of interrelationships or a complex pathway. They may be separated by distance or in time from the source of the effects. 5
Key Characteristics	Those combinations of elements which are particularly important to the current character of the landscape and help to give an area its particularly distinctive sense of place.
LVIA	Landscape and Visual Impact Assessment.
Landscape Capacity	The amount of change which a particular landscape character type or area is able to accommodate without significant detrimental effects on its character. Capacity is likely to vary according to the type and nature of change proposed.
Landscape Character	The distinct and recognisable pattern of elements in the landscape that makes one landscape different from another, rather than better or worse. 6
Landscape Character Areas	These are single unique areas which are the discrete geographical areas of a particular landscape type. 7
Landscape Character Types	These are distinct types of landscape that are relatively homogeneous in character. They are generic in nature in that they may occur in different areas in different parts of the country, but wherever they occur, they share broadly similar combinations of geology, topography, drainage patterns, vegetation and historical land use and settlement pattern, and perceptual and aesthetic attributes.

[4] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p155

[5] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p156

[6] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p156

[7] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p157

Term	Definition
Landscape Effects	Effects on the landscape as a resource in its own right. 8
Landscape Elements	Individual components which make up the landscape such as trees and hedges.
Landscape Features	Particularly prominent or eye-catching elements, like tree clumps, church towers or wooded skylines.
Landscape Quality or Condition	This is a measure of the physical state of the landscape. It may include the extent to which a typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements. 9
Landscape Receptor	Defined aspects of the landscape resource that have the potential to be affected by a proposal.
Landscape Resource	The combination of elements that contribute to landscape context, character and value.
Landscape Value	The relative value or importance attached to different landscapes by society. A landscape may be valued by different stakeholders for a whole variety of reasons. 10
Level of Effect	Determined through the combination of sensitivity of the receptor and the proposed magnitude of change brought about by the development.
Magnitude (of effect)	A term that combines judgements about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration.
Mitigation	Measures including any process, activity or design to avoid, reduce, remedy or compensate for adverse environmental impact or effects of a development.
Photomontage	A visualisation which superimposes an image of a Proposed Development upon a photograph or series of photographs.
Residential Visual Amenity	A collective term describing the views and visual amenity from a residential property, relating to the type, nature, extent and quality of views that may be experienced from the property and its 'domestic curtilage' including gardens and access driveway. Residential Visual Amenity is only one component of the overall Residential Amenity, others being for example noise, shadow flicker and access amongst others.
Residual Effects	Potential environmental effects remaining after mitigation.
Sense of Place	The essential character and spirit of an area: *genius loci* literally means 'spirit of the place'.

[8] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p157

[9] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p157

[10] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p157

Term	Definition
Sensitivity	A term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor. 11
Significant Effects	It is a requirement of the EIA Regulations to determine the likely significant effects of development on the environment which should relate to the level of an effect and the type of effect. Where possible significant effects should be mitigated. The significance of an effect gives an indication as to the degree of importance (based on the magnitude of the effect and sensitivity of the receptor) that should be attached to the impact described. Whether an effect should be considered significant is not absolute and requires the application of professional judgement.
Type or Nature of Effect	Whether an effect is direct, indirect, temporary or permanent, positive (beneficial), neutral or negative (adverse) or cumulative.
Visual amenity	Value of a particular place in terms of what is seen by visual receptors taking account of all available views and the total visual experience.
Visual Effect	Effects on specific views and on the general visual amenity experienced by people. 12
Visual Receptors	Individuals and/or defined groups of people who have the potential to be affected by a proposal.
Visualisation	Computer simulation, photomontage or other technique to illustrate the appearance of a development. 13
Wildness	A quality of appearing to be remote, inaccessible and rugged with little evidence of human influence.
Wireframe or Wireline	A computer generated line drawing of the DTM (Digital Terrain Model) and the Proposed Development from a known location.
Zone of Theoretical Visibility (ZTV)	Area within which a Proposed Development may have an influence or an effect on visual amenity. 14

[11] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p157

[12] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p158

[13] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p158

[14] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p158

A. Technical Appendix 6.2: Visual Aids

A.1 Guidance and Standards Used

A.1.1 All Visibility Maps (ZTVs), photography, visualisations (wirelines and photomontages) and their graphical presentation has been undertaken in line with the Landscape Institute's Technical Guidance Note 06/19, Visual Representation of Development Proposals and Visual Representation of Wind Farms: v2.2. Scottish Natural Heritage, February 2017.

A.2 The Computer Model

A.2.1 To generate wireline visualisations and photomontages, computer models of the proposed site and study area are produced. GIS, Resoft WindFarm software and POV-Ray are used to create 3D computer models of the Proposed Development representing the specified geometry and position of the Proposed Development, and the existing landform (terrain). The landform information is derived from 50m resolution terrain data for areas beyond 20km from the Site, and 5m resolution terrain data within 20km of the Site.

A.2.2 The computer models include the entire study area and all calculations take account of the effects caused by atmospheric refraction and the Earth's curvature. The computer models do not take account of the screening effects of any intervening objects and forestry, so do not show any vegetation, buildings, woodland or other non-terrain features, unless expressly stated.

A.2.3 The computer models combine the existing landform with the model of the Proposed Development and detailed data collected in the field to enable the output of accurate visual and graphical information and associated data for presentation as finished figures.

A.3 Visibility Maps: Zone of Theoretical Visibility

A.3.1 Zone of Theoretical Visibility (ZTV) maps have been generated using the Visibility Analysis tools within QGIS to assist in in identifying areas where visibility would not occur as well as viewpoint selection, illustrate areas from where part or all of the Proposed Development may be visible and to indicate its potential influence in the wider landscape.

A.3.2 Unless expressly stated, the visibility maps present the extent of potential visibility on the basis of a 'bare ground' scenario. They do not account for the effects of screening and filtering of views as a result of intervening features (e.g. buildings, trees, hedgerows, etc) and so tend to over-estimate visibility, both in terms of the

land area from which the project can potentially be seen and potentially in terms of the extent of the development visible from a particular viewpoint.

A.3.3 ZTVs which take into account landform and buildings use assumed heights for these features which are stated on the ZTV figure. The location and extent of woodland and buildings is derived from OS Open data and assumed heights for these are added to the bare ground model. As a result, the ZTV study does not take account of all above ground features – only those included as woodland and buildings in the OS mapping available at the time the ZTV was prepared. These ZTV studies present a more realistic visibility pattern than bare ground studies, but do not take account of the detail of felling cycles, tree growth, demolition or construction.

A.4 Visualisations: Photomontages (Types 3 & 4)

A.4.1 Baseline photography has been undertaken at each agreed representative viewpoint location using a high-quality digital SLR camera with full frame sensor and a 50mm fixed focal length lens, in combination with a panoramic head equipped tripod at 1.5m height Above Ground Level (AGL) unless stated otherwise – in accordance with the relevant guidance identified above. The resulting photos are combined into panoramas using PTGui photo stitching software and saved as cylindrical and planar projection versions for use in visualisation production.

A.4.2 The Resoft WindFarm computer model is used to generate a perspective view from each viewpoint of the Proposed Development, using landform in the computer model and the specified geometry and position of the Proposed Development.

A.4.3 Using the computer model, a wireline diagram showing the Proposed Development (and any cumulative sites as required) is generated for each viewpoint to meet the relevant requirements of guidance (e.g. blades upwards, numbered, facing the viewpoints, etc).

A.4.4 To produce a photomontage, the above wireline is combined with the photographic panorama using Resoft WindFarm and Adobe Photoshop. Detailed viewpoint information as recorded on site (e.g. GPS grid co-ordinates; ground level information; compass bearings; and any other known references; etc) is used to enable the accurate alignment of the photographs with the computer model. A perspective match is achieved between the computer generated wireline and the photographs by iteratively adjusting the parameters until all the major features in the image are aligned satisfactorily. The Proposed Development is then rendered using POV-Ray, taking into account the time and conditions occurring on the day of the photography to provide a realistic image. Where required, elements such as proposed tree planting, tree removal and other site infrastructure are also rendered using POV-Ray and incorporated into the montage using Adobe Photoshop.

A.4.5 Where provided, dusk/dawn visuals are prepared on the same basis as daytime visuals but there is a degree of judgement required to illustrate the brightness of the lighting compared to the background photography (which is more constrained than daytime photography) including exposure settings.

A.4.6 A minimal amount of image processing is undertaken. Where necessary, the contrast between the background photograph and the Proposed Development is increased to ensure that the development is apparent in the photomontage, as far as possible. It should be noted that there is an element of professional judgement inherent in the illustration of the changes represented by any photomontage.

A.4.7 The information shown on the visualisations and within the LVIA is generated via the computer model or from mathematical calculations.

A.4.8 The completed base photography, wirelines, photomontages and accompanying data are then presented as figures using desktop publishing/graphic design software to meet the relevant guidance requirements.

A.5 Image Verification

A.5.1 Should the user wish to undertake verification of the images, please refer to ANNEX E of the Visual Representation of Wind Farms: Version 2.2 (SNH, 2017) for full details of the methods required.

A.5.2 Technical details meeting TGN 06/19 requirements for type 4 visualisations as identified in Appendices 10 and 11 of the TGN are set out either in this methodology, or on the individual visualisations, with the exception of the make and model of panoramic head and elements used to check vertical and horizontal alignment. TGN 06/19 suggests that these will vary by project, but in practice these may vary by viewpoint (e.g. if photography is undertaken at separate times or by different photographers; or where viewpoints are sufficiently distant from each other that they do not share the same elements suitable for matching). These details and the 'additional imagery' requirements of a photograph of the tripod location and a 'composite view' showing the underlying construction of a photomontage are recorded for each viewpoint and can be provided if required for verification purposes.

A.6 Data Accuracy

A.6.1 The Ordnance Survey (OS) provides accuracy figures for the following terrain data products expressed statistically as root-mean-square error (RMSE) in metres:

- OS Terrain®50 (50m resolution): 4m RMSE.
- OS Terrain®5 (5m resolution): Urban and major communication routes 1.5m RMSE; Rural 2.5m RMSE; Mountain and moorland 2.5m RMSE.

A.7 SNH Visualisation Guidance Annex A: Information on limitations of visualisations.

"Visualisations of wind farms have a number of limitations which you should be aware of when using them to form a judgement on a wind farm proposal. These include:

- *A visualisation can never show exactly what the wind farm will look like in reality due to factors such as: different lighting, weather and seasonal conditions which vary through time and the resolution of the image;*
- *The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate;*
- *A static image cannot convey turbine movement, or flicker or reflection from the sun on the turbine blades as they move;*
- *The viewpoints illustrated are representative of views in the area, but cannot represent visibility at all locations;*
- *To form the best impression of the impacts of the wind farm proposal these images are best viewed at the viewpoint location shown;*
- *The images must be printed at the right size to be viewed properly (260mm by 820mm);*
- *You should hold the images flat at a comfortable arm's length. If viewing these images on a wall or board at an exhibition, you should stand at arm's length from the image presented to gain the best impression.*
- *It is preferable to view printed images rather than view images on screen. If you do view images on screen you should do so using a normal PC screen with the image enlarged to the full screen height to give a realistic impression. Do not use a tablet or other device with a smaller screen to view the visualisations described in this guidance."*

A. Technical Appendix 6.3: Landscape Sensitivity Assessment

A.1.1 The sensitivity of the host landscape character type (LCT) is assessed below. Landscape sensitivity is not absolute and can only be defined in relation to each development and its location. To assess the sensitivity of a particular landscape it is good practice to consider the value attached to the landscape and its susceptibility to the particular form of change likely to result from the proposed development. Assessment text relates to sensitivity of the landscape receptor as a whole, to the Proposed Development, with additional comments regarding the Site where relevant. In the main this has been taken from the South Ayrshire Lansdscape Wind Capacity Study (quotes shown in italics) although this is supported by other baseline studies as appropriate, including relevant national character area descriptions published by NatureScot.

Host Landscape: SA17c Foothills with Forest and Wind Farm

Factors affecting sensitivity	Lower Sensitivity to Wind Energy	Higher Sensitivity to Wind Energy	Explanation	Judgement
Value attached to Landscapes				
Designated scenic quality	No specific designation	National or regional designation	Some peripheral parts of the LCT, primarily along northern and eastern edges, fall within Local Landscape Areas (LLAs) although the majority of the LCT is not within a desingated area.	Community
Landscape condition/quality	Landscape in a poor state of repair with incongruous elements	Landscape fully intact in good condition with limited incongruous elements	This is a working landscape heavily influenced by the presence of commercial forestry and wind farm infrastructure.	Community
Rarity and/or representativeness	Commonplace elements, features, or the landscape itself. Not a good example of the landscape type.	Presence of rare elements or features or rarity of the landscape itself. Very representative landscape.	As illustrated by Figure 6.2, the Foothills with Forest landscape type is widely represented across the study area, within both South and East Ayrshire.	Community

Factors affecting sensitivity	Lower Sensitivity to Wind Energy	Higher Sensitivity to Wind Energy	Explanation	Judgement
Conservation Interests	Low presence of wildlife, earth, archaeology or historical interests	High presence of wildlife, earth, archaeology or historical interests	There are relatively few conservation interests within this LCT.	Community
Cultural associations	No specific cultural associations.	Strong cultural associations which contribute to perceptions of natural beauty.	Cultural associtations within this LCT are limited, and none are documented within the SALWCS or other baseline character studies.	Community
Amenity and recreation	Limited amenity/recreational function where experience of the landscape is important	Well used for recreation where experience of the landscape is important. May contain National Trails or other long distance routes.	There are a number of Core Paths passing through this LCT and existing wind farm tracks provide further opportunities for access. A short section of National Cycle Network (NCN) Route 7 also passes though the LCT. Experience of the landscape is of some importance to the amenity value of these however is already influenced by existing wind farms.	Community
Wildness/ Sense of Remoteness / Tranquility	Busy evidence of human activity	Remote, peaceful or sense and tranquility, solitude and emptiness	*"This landscape can feel secluded due to the absence of settlement and major roads". "The presence of extensive commercial forestry and wind farm development limits the sense of Naturalness".*	Community
Overall Judgement of Value				**Community**

Factors affecting sensitivity Susceptibility	Lower Sensitivity to Wind Energy	Higher Sensitivity to Wind Energy	Explanation	Judgement
Scale	Large scale landscapes where the turbines may be in proportion with the landscape are generally less sensitive.	Small scale intimate landscapes are generally more sensitive to large scale structures.	*"A gently undulating upland plateau with relief lower to the west but rising to the east to between 300-380m and with Glenalla Fell, the highest summit, attaining 425m. This landscape is very sparsely settled and there are few small-scale features. The horizontal extent of these foothills is reduced in the west."*	Medium
Landform	Smooth regular flowing, flat or uniform landscapes	Dramatic, rugged and complex landscapes	*"This gently undulating plateau rises to form subtly rounded indistinct hills and occasional more pronounced hills with steep slopes and defined tops such as Glenalla Fell and the 'landmark' hills lying on the outer fringes of this landscape which include Barony, Hadyard, Maxwellton hills lying on the southern edge of the Girvan Water, Genoch Inner Hill in the upper Girvan valley and Craig of Dalwine, Auchensoul and Kirkland Hills lying on the northern edge of the Stinchar Valley. The core of these uplands includes some lower-lying basins which are contained by these higher 'edge' hills."*	High/Medium
Openness/Enclosure	Open and exposed landscapes	Enclosed and sheltered landscapes	*"This upland landscape is broader in extent to the east where it forms a more expansive undulating plateau."*	Low

Factors affecting sensitivity	Lower Sensitivity to Wind Energy	Higher Sensitivity to Wind Energy	Explanation	Judgement
Land cover	Extensive areas of simple or regular landcover (including intensive farming and forestry)	Complex, intimate or mosaic cover	*"Land cover is simple, dominated by extensive coniferous forestry and grass moorland."*	Low
Complexity and patterns	Simple and sweeping lines, linear feature and patterns	Complex or irregular patterns	*"This landscape has a simple land cover pattern dominated by extensive coniferous plantations and grass moorland. Some walled pastures and small riparian broadleaved woodlands occur on outer hill slopes."*	Medium/Low
Built Environment	Contemporary masts, pylons, industrial elements, buildings infrastructure, settlements	Established, traditional or historic built character	*"The B734 and two minor public roads cross the interior of this landscape and access tracks are also present within forestry. The small reservoir of Penwhapple is located in the western part of these foothills."*	Low
Views intervisibility	Visually contained and have limited inward or outward views	Extensive views within or of the area with distant horizons.	Extensive views from more open, elevated areas (see viewpoint 2) although undulating hills and extensive forestry cover limit these.	Medium
Landscapes that form settings, skylines, backdrops, focal points	Generally low lying landscapes without distinctive landform or horizon	Areas with strong features, focal points that define the setting or skyline	*"This landscape is seen in close proximity from popular hill walks within the Carrick Hills. These foothills form a highly visible backdrop seen from the well-settled Girvan and Stinchar valleys, Girvan and the coast."*	High
Overall Judgement of Susceptibility				**Medium**
Overall Judgement of Sensitivity				**Medium/ Low**

A. Technical Appendix 6.4: Viewpoint Analysis

A.1 Introduction

A.1.1 A viewpoint assessment has been carried out from a selection of key representative viewpoint locations to inform the assessment of the likely magnitude and significance of landscape and visual effects arising as a result of the Proposed Development.

A.1.2 There were 24 viewpoints proposed during the initial Scoping process. Following ongoing design, consultation (see Table 6.1 in Chapter 6), desk-top analysis and site survey work a total of 16viewpoint locations were selected to represent the main landscape and visual receptors found in the study area.

A.1.3 The locations of the selected viewpoints are shown on Figures 6.1 – 6.12. Details for each viewpoint are provided below. Panoramic photographs, wireline diagrams and photomontages (in most cases) are provided to illustrate the existing view at each viewpoint location and the likely extent of the Proposed Development within the view (see Viewpoints 1-16). A summary of the viewpoint analysis is provided in Table 6.8 in the main LVIA (see Chapter 6).

A.1.4 This viewpoint assessment considers the nature of the predicted view and the scale of change. The wider extent of the effect (beyond the individual viewpoint considered), and its duration, are not captured in the viewpoint analysis (as a single viewpoint cannot capture extent or duration) and are considered in the main body of the assessment (see Chapter 6). Extent and duration are factors in the overall judgement on magnitude of change, therefore judgements on magnitude of change and overall level of effect and significance are also provided in the main assessment.

A.1.5 The method of assessment used for the viewpoint analysis, which is described in Appendix 6.1, accords with current best-practice guidance for Landscape and Visual Impact Assessment (Landscape Institute and Institute of Environmental Management, 2013). Observations are made of the baseline landscape and visual characteristics at each of the representative viewpoints. Observations, computer modelling and professional judgement are applied to determine the scale of change attributable to the Proposed Development **(Large, Medium, Small and Negligible**) upon landscape character and visual amenity at each individual viewpoint in order to determine the scale of effect.

A.1.6 The visual assessment takes into account the screening effect of intervening landform, vegetation and built form. It assumes excellent clear weather conditions; although the influence of different seasons, weather, sunlight and visibility conditions have been considered, where relevant.

Viewpoint 1	South Balloch
Location	On the grass verge at the intersection, east of the South Balloch Bridge
Distance/ Direction from Development	3 km south east
Landscape Character Type	SA13 Intimate Pastoral Valley (Stinchar Valley LLA)
Visual Receptors	Road users / cyclists on NCN Route 7 / Core Path users / dispersed settlement
Existing View	The view here looks along the valley with surrounding upland landscapes forming ridgelines, enclosing the valley floor. The view along the valley to the west is somewhat constrained by farm buildings and the rising bridge in the foreground, with some small trees in the foreground providing further screening in summer months. The tips of 2 – 3 Hadyard Hill turbines are visible above the valley side, seen above ad to the right of the bridge in the foreground. To the north, foreground trees screen views across the valley bottom which rises to forestry on top of Daljedburgh Hill. To the right of this, the hillside drops forming a dip in the horizon where the top of Doughty Hill is visible in front of the Site. Views are open to the east over open pasture, with partially forested hills rising either side of the Stinchar River, encapsulating and framing views of fields on the valley floor.
Predicted View & Scale of Visual Change	The Proposed Development would be to the north, behind Daljedburgh and Doughty Hills. The landform and forestry on Daljedburgh Hill would screen the tips of turbines 11, 13, 14 and most of 12. The hubs and rotating blades of turbines 4, 5, 6, 8, 9 & 10 would be clearly visible in the dip in landform, appearing behind the summit of Doughty Hill to the north. The tips of Turbines 7 & 3 would also appear above the horizon in this direction, though would be more screened by landform. Although the turbines would sit in a low point on the horizon and would appear prominent in the northern view, they would not rise much above the height of the forested top of Daljedburgh Hill but would still represent a prominent new and very large scale feature in the view. The scale of change during operation is predicted to be Large.
Scale of Change to Landscape Character	The Proposed Development would be seen as part of a complex valley side, introducing turbines more notably than the existing Hadyard Hill turbines. Whilst the turbines would be clearly visible on the horizon and attract attention by the movement of the blades, the open views along the valley would remain intact, uninterrupted and largely unchanged by the presence of the turbines. There would be a degree of contrast with the smaller and medium scale elements within the valley, but the turbines would outside of this and associated with the larger scale adjacent upland landscape. The scale of change during operation would be Large/Medium.

Viewpoint 1	South Balloch
Cumulative	**Scenario 2:** No consented wind energy developments will be visible from this location. **Scenario 3**: No proposed wind energy developments would be visible from this location. **Scenario 4:** A single blade tip of Carrick would appear above the horizon to the right of the Craiginmoddie turbines. Assuming the prior presence of Carrick, the scale of landscape and visual change would be no different to Craiginmoddie alone.

Viewpoint 2	Hadyard Hill
Location	On the plateau at the top of Hadyard Hill
Distance/ Direction from Development	3.6 km west
Landscape Character Type	SA 17c Foothills with Forest and Wind Farm (on southern boundary of Water of Girvan Valley LLA)
Visual Receptors	Recreational walkers
Existing View	This viewpoint offers a 360 degree panoramic view as the slopes of Hadyard Hill drop away from the grassy plateau into the undulating hills of the Foothills with Forest and Wind Farms landscape type. Partially forested hills occupy much of the view to the east and south, around the existing Hadyard Hill wind turbines before dropping into nearby valleys. Operational wind farms span from the edge of the Site to the east, beginning with Hadyard Hill which connects visually to Assel Valley and Tralorg in the south west. These turbines in the foreground and mid ground appear predominantly backclothed by landform and forestry, with a few blade tips and occasional hubs appearing above the horizon. More distant operational turbine development is seen beyond these with Kilgallioch, Mark Hill and Arecleoch appearing on and just in front of the more distant horizon with intermittent screening from commercial forestry. Views west toward the sea are predominantly unaffected by wind energy development. The surrounding foothill landscape flattens into the Lower and Middle Dale of the Water of Girvan Valley. The single turbine at Girvan Hospital is visible in front of the coastline, with Ailsa Craig on the horizon above. Toward the northwest is the single turbine of Downhill Farm, backclothed by sea. In excellent visibility, the hills of Arran appear on the horizon in this direction. Dersalloch turbines are also visible in the northwest behind partially forested rising hills.
Predicted View & Scale of Visual Change	The proposed turbines would be seen occupying the forested hills behind the more distant Hadyard Hill turbines to the east,. The hubs and tips of all 14 turbines would be visible, with turbines 7, 8 and 11 dropping down to the

Viewpoint 2	Hadyard Hill
	rear of the view slightly. The array would appear compact and cohesive, with some limited overlapping of turbines. The Proposed Development would slightly extend the span of turbines across the view to the east although would be less prominent than the nearest of the operational turbines at Hadyard Hill. Given the presence of existing wind farms in this area, the Proposed Development would not appear out of character with the baseline and would appear similar to the operational schemes. Views toward the sea would remain unaffected by the proposed turbines. Keyhole felling and the bases to turbines 1, 2, 3, 9 & 13 would be visible along with existing and proposed tracks between turbines. The Substation and construction compound would be partially visible in an area of felled woodland to the left of turbine 1. The scale of change during operation would be Medium.
Scale of Change to Landscape Character	The prevalence of existing wind farms is a key characteristic of this area. The scale of the landscape is accommodating to large typology wind development, allowing turbines to stand between plateau moorlands and rolling foothills, where their size reflects the scale of the landscape. The Proposed Development turbines would not break this pattern, though they would add to the concentration and scale of turbines in this LCT. The scale of change during operation would be Small, given the baseline situation.
Cumulative	**Scenario 2:** The consented Kirk Hill wind farm will be openly visible to the north, 5.4 km from the viewpoint, appearing separate from other schemes whilst still in keeping with the scale of developments in the area. Both consented turbines at Knockshinnoch will be visible to the north east though at 21.5 km, they would appear much less noticeable. Polquhairn, South Kyle and Benbrack will appear partially screened by topography in the distance either side of the operational Dersalloch at 26 km from the viewpoint and will only be visible in very clear conditions. The addition of Craiginmoddie in a future baseline where the consented schemes are present would still result in a Small scale of change for landscape and a Medium scale of change for visual receptors. **Scenario 3**: The proposed Clauchrie wind farm would be seen through existing Hadyard Hill turbines to the south, though would be partially screened by intervening topography and would appear as a background element to existing schemes, adding to the visual density of turbine development only slightly. The addition of Craiginmoddie in a future baseline where proposed schemes are present would sill result in the same scale of change as for Craiginmoddie alone. **Scenario 4:** Craiginmoddie would appear directly in front of Carrick. Although this section of the view would already feature turbines, Craiginmoddie would be notably larger and closer. Assuming the prior presence of Carrick, effects would be the same as for Craiginmoddie alone.

Viewpoint 3	Dailly
Location	On the footpath at Eldinton Terrace, Dailly
Distance/ Direction from Development	4.4 km northwest
Landscape Character Type	SA12 Middle Dale (Water of Girvan Valley LLA)
Visual Receptors	Settlement / road users / users of nearby Core Paths
Existing View	Views south look across the road and hedgerow to open fields which rise gently up to moorland, forming a ridge that runs parallel with the road. Views in this direction are largely unobstructed, although contained by the valley sides, with roadside hedgerows neatly trimmed. Craiginmoddie Hill appears beyond the edge of the nearest hills enclosing the valley, notable due to its forested summit. Views along the valley here are generally screened by buildings and dense vegetation within the settlement. There are no operational wind farms visible.
Predicted View & Scale of Visual Change	There would be 12 of the 14 proposed turbines visible to some degree from this location. The hubs and rotating blades of 11 of these would be seen rising above the horizon with retained forestry within the Site providing some screening of the hub of turbine 8. Intervening ridgelines would screen some of the western end of the Proposed Development, and more distant turbines, with lower parts of the towers of at least 7 turbines hidden by the intervening hills. Turbines would appear clearly noticeable on the horizon, within a dip in the landform on the valley side. The array would form a cohesive group with only limited overlapping at the eastern end. Keyhole felling would allow the base of turbine 3 to be seen, along with the associated crane pad and connecting tracks, though all other ground level infrastructure would be screened by forestry. The scale of change during operation is predicted to be Large/Medium.
Scale of Change to Landscape Character	There would be a notable contrast between the scale of the turbines and scale of landscape features within this LCT. However, the Proposed Development would be clearly seen within the adjacent upland LCT (which is of much larger scale), rather within the Water of Girvan Valley. There is a close visual relationship between these two LCTs though and the Proposed Development would have an influence on landscape character in this location. The scale of change during operation would be Large/Medium.
Cumulative	**Scenario 2:** No consented wind energy developments will be visible from this location. **Scenario 3:** Clauchrie would not be visible from this location. **Scenario 4:** Craiginmoddie would appear directly in front of Carrick, although only one of the Carrick turbines would be openly visible along with a few additional turbine blades. Craiginmoddie would be more openly visible and would be larger and closer. Assuming the prior presence of Carrick, effects would be the same as for Craiginmoddie alone.

Viewpoint 4	B741 near Ruglen
Location	On the grass verge of the southern edge of the B741 outside Ruglen.
Distance/ Direction from Development	4.6 km north
Landscape Character Type	SA12 Middle Dale (Water of Girvan Valley LLA)
Visual Receptors	Road users
Existing View	This viewpoint looks across the parkland fields of Kilkerran Estate on the floodplain in the valley bottom, contained the foothills of the valley side to the south, and woodland along the valley to the northwest. The policies (estate woodlands) and coniferous forest extend uphill behind the estate, giving way to a grass topped hill on the horizon in the centre of the view, with lower wooded hills to the left and to the right. Foothills drop from the ridgeline into the valley in the south-south west where some blade tips of the existing Hadyard Hill wind farm is visible above woodland on the horizon. Views south west around to the north east are screened by roadside hedgerows, topography, and woodland. Views are available to the north east across the road onto undulating pasture, typical of the Middle Dales, which is split by hedgerows with occasional trees. Isolated farm buildings can be seen both with the dales and as they begin to rise into the Foothills with Forest and Windfarms LCT on the southern side of the valley.
Predicted View & Scale of Visual Change	Theoretically 8 blade tips of the Proposed Development would be visible, rotating over the horizon, but only 5 are likely to be noticeable due to screening by tree cover, even in winter. All ground-level operations associated with the construction, operation and decommissioning phases would be screened by landform. The scale of change during operation is predicted to be Small/Negligible.
Scale of Change to Landscape Character	The focus of landscape elements in this area of the Middle Dale is within the valley floor consisting of flat pastoral land with broadleaf vegetation and hedgerow boundaries. The few blade tips visible along the skyline would have no influence on character here. The scale of change during operation would be Negligible.
Cumulative	**Scenario 2:** No consented wind energy developments will be visible from this location. **Scenario 3:** Clauchrie would not be visible from this location. **Scenario 4:** One blade tip at Carrick is theoretically visible over intervening topography although would be screened by woodland or forestry. Assuming the prior presence of Carrick, effects would be the same as for Craiginmoddie alone.

Viewpoint 5	Barr
Location	On Glenginnet Road outside of Barr, across from a group of houses.
Distance/ Direction from Development	4.7 km south west
Landscape Character Type	SA13 Intimate Pastoral Valley (Stinchar Valley LLA)
Visual Receptors	Settlement / road users
Existing View	Views to the northeast are partially obscured mature trees forming and avenue on either side the Glenginnet Road to the north west. The Foothills with Forest and Wind Farms on the north side of the valley are visible with the characteristic forestry present on the horizon. A few operational turbines at Hadyard Hill are visible to the north (left) of the road, with one turbine standing prominent in a dip in the ridgeline, although most of Hadyard Hill though is screened by intervening landform, rising to contain the valley to the west. The valley bottom is well wooded and this vegetation, along with houses within Barr, curtail most views to the south and west.
Predicted View & Scale of Visual Change	Theoretically, all 14 blade tips and 11 hubs would be visible on the horizon to the northeast above the road. However, trees lining Glenginnet Road in the foreground will heavily filter views, even in winter, leaving only 5 of the proposed turbines more clearly visible, albeit still filtered through the canopy. In summer, leaf cover would largely screen the turbines in this view. Filtered glimpses to the bases of turbines 1, 2 & 13 would be available through trees on Glenginnet Road, with keyhole felling and crane pad at the base of turbine 13 just visible under/through the trees. All other ground level infrastructure would be screened by intervening landform and forestry. The scale of change during operation is predicted to be Medium.
Scale of Change to Landscape Character	Intervisibility between the Intimate Pastoral Valley LCT and the Foothills with Forest and Wind Farm LCT is notable in this area where the valley floor is not entirely flat. From slightly elevated areas surrounding the viewpoint, the Proposed Development would appear on part of the hillside that contains the valley. From these elevated positions, more of the adjacent Foothills is present in the view with an increase in larger scale elements in the view. However, the Proposed Development would notably increase the influence of wind energy at this position within the valley. The scale of change during operation would be Medium.
Cumulative	**Scenario 2:** No consented wind energy developments will be visible from this location. **Scenario 3**: Clauchrie would be screened by dwellings from this position. **Scenario 4**: A few of the Carrick turbines would be seen appearing over the horizon to the north east, adjacent to Craiginmoddie but not likely to overlap. They would appear more distant but be in slightly more open view with lesee notable screening by intervening vegetation. Assuming the prior presence of Carrick, effects would be the same as for Craiginmoddie alone.

Viewpoint 6	Crosshill
Location	On the grass verge of Kirkmichael Road at the eastern edge of Crosshill township.
Distance/ Direction from Development	6.9 km north
Landscape Character Type	SA12 Middle Dale (Water of Girvan Valley LLA)
Visual Receptors	Settlement / road users / nearby users of National Cycle Route 7
Existing View	The view looks out over the undulating landform of the broad Girvan Valley. Land use in this part of the valley is characteristic to the Middle Dale LCT and is a mix of open pasture with broadleaf trees, shelterbelt woodland and hedgerows delineating property boundaries. These vegetation patterns dissolve into a mix of bare and forested foothills, forming a low ridge to the south. To the east, blade tips of the operational Dersalloch wind farm are visible on the horizon while to the southwest turbines at Hadyard Hill, Assel Valley and Tralorg are largely screened by nearby vegetation.
Predicted View & Scale of Visual Change	Hubs of 9 turbines and blades of all of the proposed turbines would appear on the skyline, appearing beyond the valley sides over the Crosshill Bowling Club, occupying approximately 40 degrees of the view to the south. The turbines would be well spaced with limited overlapping. The turbine towers would be substantially screened behind the intervening hills and no ground level elements of the Proposed Development would be visible. The scale of change during operation is predicted to be Medium.
Scale of Change to Landscape Character	The Proposed Development would appear on a low, unremarkable skyline to the south. The gentle rolling hills in this direction are host to a tapestry of landscape features, forming interlocking layers in front of the turbines, although the Proposed Development appears quite separate and outside of this valley landscape. The horizontal emphasis of the array from this position would accord with the existing landscape elements in the Middle Dale and would be visible where the larger scale elements of the Foothills are clearly present. The scale of change during operation would be Medium/Small.
Cumulative	**Scenario 2**: Two tips of the consented Kirk Hill wind farm will be theoretically visible to the west above Crosshill though are likely to be entirely screened by woodland. Assuming the prior presence of other consented developments, effects would be the same as for Craiginmoddie alone. **Scenario 3**: Clauchrie would not be visible from this location. **Scenario 4**: Carrick would be visible above the horizon to the south, adjacent to but not overlapping Craiginmoddie. Three of the turbines would be in relatively open view, standing quite tall on the skyline with blades of three more seen beyond. Craiginmoddie would appear to extend Carrick along the skyline to the west and would extend the spread of turbines here. Assuming the prior presence of Carrick, effects would be the same as for Craiginmoddie alone.

Viewpoint 7	Colonel Hunter Blair Monument, Kildoach Hill
Location	50m east of the Colonel Hunter Blair Monument on Kildoach Hill
Distance/ Direction from Development	7.6 km northeast
Landscape Character Type	SA17b Foothills with Forest West of Doon Valley (Water of Girvan Valley LLA)
Visual Receptors	Recreational walkers
Existing View	This panoramic viewpoint looks out to the south and west across the steeply incised upper Girvan Valley. The outlook from here to the southwest is onto sharply undulating grassland which drops into the valley in front of the tall stone monument at the top of Kildoach Hill. Pasture and delineating shelterbelt woodland populate the Intimate Pastoral Valley LCT below the view, with Foothills with Forest and Wind Farm rising to form a notable ridge on the horizon where the site is located. The ridgeline dips down in the west, into the Girvan Valley, where longer views open onto more distant hills and to Ailsa Craig on the horizon. Views northwest are over the Middle Dales LCT and the Maybole Foothills LCT which are comparably flat from this elevated viewpoint. Commercial forestry becomes visible on lower slopes in the north before Kildoach Hill screens views from the northeast to the south, with some rotating tips of the operational Dersalloch turbines and a distant upland peak visible above foreground grassy undulations. Views to the south open onto rugged uplands in the distance, forming part of the Merrick WLA, with forested foothills rising again in front to form the forested hills around the site.
Predicted View & Scale of Visual Change	There would be 6 of the turbines, along the north western side of the array, in relatively open view with the remaining turbines more notably screened by intervening landform. Up to 8 hubs would be seen above the horizon in a saddle between two partially forested hilltops to the southwest although 1 – 2 of these may be screened by intervening forestry. A further 4 blade tips may also be visible but would be screened to varying degrees by the forestry. The Proposed Development would be compact, occupying less than 10 degrees of the view from this location, with some stacking and overlapping. The scale of change during operation is predicted to be Medium.
Scale of Change to Landscape Character	The Proposed development would appear as a landscape element in a different occurrence of this broader foothills character type where existing turbine development is typical. The Foothills are areas of high ground, which is accentuated by the Middle Dales LCT of the Girvan valley to the north and the Intimate Pastoral Valley LCT of the River Stinchar in front of and to the south of the site. Patchwork forestry is intermittently present in the landscape within both the host Foothills with Forest and Wind Farm LCT and the Foothills with Forest west of Doon Valley where the viewpoint is located. The turbines would be a relatively distant feature with limited influence on landscape characteristics at this location. The scale of change during operation would be Medium/Small.
Cumulative	**Scenario 2**: Kirk Hill will be visible at around 12.6 km to the west, directly beyond the monument. Both consented Knockshinnoch turbines will also be visible at approximately 11 km to the north with landform screening one hub. Both these schemes would be relatively small, distant features with little influence on views of character here. Assuming the prior presence of other

Viewpoint 7	Colonel Hunter Blair Monument, Kildoach Hill
	consented developments, effects would be the same as for Craiginmoddie alone. **Scenario 3**: a small number of the Clauchrie turbines may be visible over 15 km away to the southwest, beyond intervening ridgelines, and they would be a small feature with little influence here. Assuming the prior presence of Clauchrie, effects would be the same as for Craiginmoddie alone. **Scenario 4**: Carrick would be openly visible here at relatively close proximity with the nearest turbines just over 5 km from the viewpoint. They would extend across the foothills, appearing to drop slightly down the valley sides towards the upper Girvan Valley, and would span c. 50 degrees of the view from south to southwest. Assuming the prior presence of Carrick, Craiginmoddie would appear as a relatively minor and more distant extension of an existing large wind farm. This would result in a reduced Small/Negligible scale of change on character and Small scale visual change.

Viewpoint 8	North Threave
Location	On the grass verge of a minor road, opposite a group of farm buildings.
Distance/ Direction from Development	8.2 km northwest
Landscape Character Type	SA17d Maybole Foothills
Visual Receptors	Road users / dispersed settlement
Existing View	Views southeast toward the site are open, looking across gently rolling, open pastures of the Middle Dales to the distant Foothills with Forest and Wind Farms which form a more defined series of ridgelines. These extend across the view to the south where existing turbines at Hadyard Hill, Assel Valley and Tralorg extend across the horizon. Views out to the coast open up to the southwest although rapidly become curtailed by roadside vegetation and rising ground. The existing single turbine at North Threave is seen nearby, to the right to road to the west. Looking east, views are contained by rising ground and forestry in the middle distance while to the north they are blocked by the adjacent farm buildings.
Predicted View & Scale of Visual Change	The Proposed Development would be seen in quite open view spread out across the distant hills to the southeast, extending away inland from the operational Hadyard Hill turbines and the wider turbine development on the distant hills. The bases of turbines 1-7 and 13 would be visible, and keyhole felling might be discernible at the bases of 6 of the turbines. The turbines in the Proposed Development would be notably larger than those currently operational in the view but would be slightly more distant and would not change the existing pattern of turbine development appreciated from here. The scale of change during operation is predicted to be Medium/Small.
Scale of Change to Landscape Character	The Proposed Development would be an additional wind energy development, extending the spread of turbines to the south east, within a landscape typology which is already characterised by such features. Whilst

Viewpoint 8	North Threave
	the turbines would be clearly visible in a distant landscape, the influence on the character in this part of the Maybole Foothills would be limited. The scale of change during operation would be Small.
Cumulative	**Scenario 2**: most of the Kirk Hill turbines will be visible at close proximity within or beyond forestry around 1.4 km to the east, with the nearest turbines appearing very prominent on the nearby hilltop above the road. They would be a very notable feature in views and would have a notable characterising influence here. Assuming the prior presence of consented schemes, the scale of visual change would reduce to a Small and effects on character here would also reduce to Small/Negligible scale. **Scenario 3**: a small number of the Clauchrie turbines may be visible over 15 km away to the south. They would be seen directly beyond Hadyard Hill and would result in a barely perceptible change to the existing view. Assuming the prior presence of Clauchrie, effects would be the same as for Craiginmoddie alone. **Scenario 4**: Carrick would be seen in relatively open view to the southeast, extending over distant hills and notably separate from existing wind energy development and of a larger scale. Assuming the prior presence of Carrick, the addition of Craiginmoddie would appear to extend an existing group of turbines of the same size and would be less of a notable change on the distant skyline than Craiginmoddie alone. In this scenario, the scale of visual change would remain Small although the scale of change to character here would reduce to Negligible.

Viewpoint 9	Cornish Hill
Location	At the summit of Cornish Hill
Distance/ Direction from Development	9.1 km southeast
Landscape Character Type	SA21 Rugged Uplands, Lochs and Forest (High Carrick Hills LLA / Merrick WLA)
Visual Receptors	Recreational walkers
Existing View	This location offers panoramic views to the west and north. These look over the immediate upland terrain with turbines of the existing Hadyard Hill, Tralorg and Assel Valley visible between 12 km and 20 km from the viewpoint to the west, partially screened by the intervening landform. Existing turbines are seen in more open view beyond intervening forestry to the north at around 9 km. To the south and east, rising ground within the rugged uplands contains views.
Predicted View & Scale of Visual Change	The Proposed Development would be in fairly open view, spanning 15 degrees across the horizon to the northwest in this large scale view. Some turbine towers would be screened by intervening landform but all hubs would stand above the skyline. It would appear relatively even, neatly spaced and cohesive with some limited stacking and overlap of turbines to the left (south) side. The scale of change during operation is predicted to be Medium/Small.

Viewpoint 9	Cornish Hill
Scale of Change to Landscape Character	The Proposed Development would be clearly associated the distant Foothills with Forest and Wind Farm character type and separate from the more open upland at the viewpoint. In the direction of the Site this is clearly distinguished by the intervening landform of the Stinchar Valley. Whilst the Proposed Development would be visible on distant hills, it is clearly located within a different LCT, with limited influence on character here. The scale of change during operation would be Small.
Cumulative	**Scenario 2:** The consented South Kyle turbines will appear in the distance above a nearer hilltop to the north east at 15.8 km from the viewpoint. Knockshinnoch will also be visible through the operational Dersalloch at 19.3 km from the viewpoint but largely imperceptible given the distance and scale of the development. Assuming the prior presence of other consented developments, effects would be the same as for Craiginmoddie alone. **Scenario 3**: Clauchrie would not be visible from this location. **Scenario 4**: Carrick would be clearly visible as the most prominent turbines in the landscape, extending through the flatter area of forestry to the northwest with the nearest turbines in open view less than 4 km from the viewpoint. Craiginmoddie would appear as a more distant extension, associated more with the distant hills than the lower lying forestry closer to the viewpoint. Assuming the prior presence of Carrick, the scale of visual change would reduce to Small scale and the scale of change to character here would be Negligible.

Viewpoint 10	B734 near Cairnwhin
Location	Beside shelterbelt woodland on the verge of the B734, opposite a farm access within the Stinchar Valley.
Distance/ Direction from Development	8.9 km southwest
Landscape Character Type	SA13 Intimate Pastoral Valley (Stinchar Valley LLA)
Visual Receptors	Road users / walkers on nearby core paths
Existing View	Views here are constrained by the landform of the valley and extensive vegetation cover. The viewpoint is located at a localised, elevated point on the road where there is a more open view along the valley towards the Site. Overlapping hills form a ridgeline on the north side of the valley, with forestry appearing on the horizon where the Site is located. Hills on the valley side are largely open moorland or unimproved pasture extending up from farms in the valley floor. Extensive vegetation and woodland is seen extending along the valley bottom in the middle distance.
Predicted View & Scale of Visual Change	The Proposed Development would be along the valley, above the containing hills. The hubs and upper towers of 5 would be more openly visible while 5 more blades tips would be seen just above the skyline to the left of these. They would be seen as a compact group with some stacking of the most openly visible turbines. All infrastructure would be screened by intervening landform

Viewpoint 10	B734 near Cairnwhin
	The scale of change during operation is predicted to be Small.
Scale of Change to Landscape Character	Intervisibility between the Intimate Pastoral Valley LCT and the Foothills with Forest and Wind Farm LCT is key to the sense of containment for the valley and is notable in this area where interlocking hills surround the River Stinchar on both sides. The Proposed Development, while clearly visible from the valley, remains behind the horizon in the Foothills where the site is located, and does not encroach on the valley sides. The scale of change during operation would be Small.
Cumulative	**Scenario 2:** No consented wind energy developments will be visible from this location. **Scenario 3**: No proposed wind energy developments would be visible from this location. **Scenario 4**: Carrick would be visible extending across the open hilltop along the valley with 7 of the turbines in relatively open view and a few more blades of more distant turbines appearing above the skyline. Craiginmoddie would appear to extend this with a slightly closer, dense cluster of turbines to the left. Assuming the prior presence of Carrick, the introduction of Craiginmoddie would be less of a notable change to the distant skyline. The scale of visual change would reduce to Small/Negligible scale, as would the scale of change to character here.

Viewpoint 11	Maybole War Memorial
Location	On the gravel, immediately to the southeast of the Maybole War Memorial
Distance/ Direction from Development	9.9 km north
Landscape Character Type	Maybole Foothills (SA17d/SNH 77)
Visual Receptors	Visitors to the memorial, nearby settlement, users of nearby Core Paths
Existing View	Broad views are available to the south across the Maybole Golf Club over the surrounding foothills and into rolling farmland of the Girvan Valley, rising to the foothills with forest and wind turbines in the distance beyond. Foreground trees provide some limtied screening of views to the east, with the operational Dersalloch windfarm visible on the horizon to the east-southeast. Extensive dispersed settlement, with shelterbelt woodland and hedgerows delineating property boundaries, is seen extending across the surrounding countryside. Large blocks of commercial forestry punctuate areas of the horizon, from east to south, forming a notable ridgeline. Kildoon Hill rises to the north to form a low, craggy outcrop marked with a stone monument in front of the Site to the south, screening more distant views from south to west. Views to the northwest and north are into the town of Maybole with screening from trees and hedgerows at the monument screening views to the north east.
Predicted View & Scale of Visual Change	All 14 of the proposed turbines would be visible, with 9 hubs appearing evenly spaced along the flat, simple skyline to the left of Kildoon Hill with the right (west) end of the development seen as blade tips only turning above the flatter landform to the right of the monument on Kildoon Hill. The turbines

Viewpoint 11	Maybole War Memorial
	would be a relatively distant feature and none of the ground level infrastructure would be discernible from here. The scale of change during operation would be Small
Scale of Change to Landscape Character	Existing wind energy development is not extensively visible from here although not entirely absent. Proposed Development would be a good fit with the scale of the receiving Foothills with Forest and Wind Farm LCT, however, there would be some scale contrasts available with the foreground Maybole Foothills LCT. The Proposed Development would be clearly located within a different LCT, limiting the impact on local landscape character, but there would be some influence due to its appearance on the ridgeline and contrast with Kildoon Hill. The scale of change during operation would be Small
Cumulative	**Scenario 2:** Very distant views to the consented South Kyle turbines will be visible at 24.5 km to the east above foreground trees. Blade tips of the consented Benbrack turbines are unlikely to be noticeable on the horizon through the operational Dersalloch. The consented Kirk Hill turbines will appear at 4.5 km to the southwest above foreground pastures and trees/forestry. Assuming the prior presence of other consented developments, effects would be the same as for Craiginmoddie alone. **Scenario 3**: Clauchrie would not be visible at this location. **Scenario 4**: Carrick would be visible at c. 11 km from the viewpoint, extending along the skyline to the southeast and disappearing behind distant hills. The Craiginmoddie turbines would be the same scale as Carrick and would appear to extend this scheme to the right (west) with similar number of turbines visible over a similar arc of view, doubling the spread of the most openly visible turbines. Assuming the prior presence of Carrick, the introduction of Craiginmoddie would be less of a notable change to the distant skyline. The scale of visual change would reduce to Small/Negligible scale, as would the scale of change to character here.

Viewpoint 12	Shalloch on Minnoch
Location	At the summit of Shalloch on Minnoch
Distance/ Direction from Development	11.3 km southeast
Landscape Character Type	SA21 Rugged Uplands, Lochs and Forest (High Carrick Hills LLA / Merrick WLA)
Visual Receptors	Recreational – hill walkers
Existing View	Expansive views are available from this elevated upland plateau hilltop. Outlook to the south into Dumfries and Galloway is into lower undulating, partially forested landscapes, with occasional notable landforms and lochs visible across Plateau Moorland character types into South Ayrshire. Kilgallioch and Arecleoch windfarms are visible to the in the southeast at 20-25 km from the viewpoint, with Mark hill turbines overlapping in front of these schemes at 15.4 km.

Viewpoint 12	Shalloch on Minnoch
	The distinctive landform of Byne Hill is visible on the horizon to the west, before Foothills begin to rise in front of the sea where Assel Valley and Tralorg turbines appear in front of Ailsa Craig, with a small gap between them and the turbines at Hadyard Hill which are partially screened by intervening landform in the Foothills with Forest and Wind Farm LCT. Medium scale hills intersected with small valleys give way to coastal landscape with Arran visible on the horizon in clear conditions. South and East Ayrshire Lowlands are seen to the north behind intervening Foothills with Forest where the operational Dersalloch wind farm is visible at 13 km from the viewpoint.
Predicted View & Scale of Visual Change	The Proposed Development would be visible in its entirety to the northwest, on partially forested high ground in front of the sea, with Arran visible in the distance. Views would be across the array, with turbines appearing to be evenly spaced with little overlap. The proposed turbines would appear on the ridgeline of the landscape, seen to occupy an unremarkable landform with extensive commercial forestry. The turbines would fit into the wider pattern of wind energy development with numerous operational schemes visible to the west and southwest although would appear slightly closer and larger. The scale of change during operation is predicted to be Small.
Scale of Change to Landscape Character	The Proposed Development would rest firmly on the plateau landform with a clear buffer between it and the valley landscapes to its north and south. Broad long-distance views from peaks are characteristic of the Rugged Uplands, Lochs and Forests landscape type, with high intervisibility into other landscape types in which turbine development is a prevalent characteristic. The scale of change during operation would be Small/Negligible.
Cumulative	**Scenario 2:** The consented South Kyle and Benbrack wind farms will be visible at 16.6 km to the northeast and would be mostly backclothed by landform with some tips to the rear of the South Kyle array rising above the horizon. Both Knockshinnoch turbines would be visible through the operational Dersalloch turbines to the north at 22.8 km. All of the consented Kirk Hill turbines will be visible at 19 km to the northwest in front of Arran. Distant views to the consented Chirmorie wind farm will be available at 24 km to the southwest, which would be seen to close the gap between Arecleoch and Kilgallioch wind farms. Assuming the prior presence of other consented developments, effects would be the same as for Craiginmoddie alone. **Scenario 3**: The proposed Clauchrie wind farm would be visible at 7.5 km and would be the closest and most prominent wind farm in the view. Assuming the prior presence of Clauchrie, the addition of Craignimoddie would be less notable given the greater distance and no longer being largest or closest turbines in view. As a result, visual effects would reduce to Small/Negligible scale while effects on character would be Negligible scale. **Scenario 4**: Carrick would be seen to the north at just over 7 km from the viewpoint. They would be the closest and most prominent turbines in the landscape, extending through a flatter area of forestry. Craiginmoddie would appear as a more distant extension, associated more with the distant hills. Assuming the prior presence of Carrick, the scale of visual change would reduce to Small/Negligible scale and the scale of change to character here would be Negligible.

Viewpoint 13	A77 north of Girvan
Location	On the bridge over the Water of Girvan, northeast of the Girvan Hospital
Distance/ Direction from Development	11.3 km west
Landscape Character Type	SA11 Lower Dale
Visual Receptors	Road users / settlement / nearby users of Core Paths
Existing View	This view looks along the lower Girvan Valley to the east into the foothills where the site is located behind distant hilltops and the operational Hadyard Hill turbines. Slopes of the Foothills with Forest and Wind Farm LCT rises further to the south east, mostly of unimproved grassland with some pasture extending up the hill where 3 turbines of Tralorg are clearly visible on the horizon. The valley bottom in the Lower and Middle Dales and Raised Beach Coast with Flat Fields and Headlands LCTs at the base of the foothills are almost entirely screened by foreground woodland and industrial, with some visibility extending north along the road toward the sea and south towards Girvan with Byne Hill rising above the town. The Girvan Hospital and single turbine is seen to the south east in the foreground of the view.
Predicted View & Scale of Visual Change	Up to 9 blade tips of the Proposed Development would be visible over the top of distant hills, appearing to mix with the operational Hadyard Hill turbines. The Proposed Development would appear only as a few rotating blade tips above the skyline of similar scale and adjoining to existing turbine array and would not form a very noticeable element on the skyline. The scale of change during operation is predicted to be Negligible.
Scale of Change to Landscape Character	The Proposed Development would not present uncharacteristic elements to the landscape where wind turbines are present and would have limited influence on local landscape character. The scale of change during operation would be Negligible.
Cumulative	**Scenario 2:** 5 of the consented Kirk Hill turbines would be partially visible to the north east behind intervening landform and woodland above foreground industrial buildings. Assuming the prior presence of other consented developments, effects would be the same as for Craiginmoddie alone. **Scenario 3**: Clauchrie would not be visible from this location. **Scenario 4**: Carrick would not be from this location.

Viewpoint 14	Byne Hill
Location	Specific viewpoint at the summit of Byne Hill
Distance/ Direction from Development	13.2 km southwest
Landscape Character Type	SA17e Coastal Foothills (Girvan to Ballantrae Coast and Hills LLA)

Viewpoint 14	Byne Hill
Visual Receptors	Recreational walkers
Existing View	Views from this popular hilltop are out onto flat coastal landscape surrounding the town of Girvan, where the single turbines at Girvan Hospital, Downhill Farm and North Threave rise above settlement and surrounding pasture. Shelterbelts and small blocks of woodland delineate properties and pastures in the Lower and Middle Dales which begin to taper off into the rising foothills in the east where an open, slightly undulating plateau landform is home to Tralorg, Assel Valley and Hadyard Hill wind farms as close as 2.6 km from the northeast to the east. The foothills drop into the Stinchar Valley in the southeast before rising slowly into partially forested rolling hills stacking into the horizon where the existing Mark Hill turbines are visible with partial screening by landform and forestry, 10.7 km to the southwest. The landscape dips and rises around the Duisk River Valley before Kilgallioch and Arecleoch turbines stand on the horizon around an intervening landform before the Coastal Foothills rise in the south screening visibility thereafter.
Predicted View & Scale of Visual Change	The Proposed Development would appear behind, and much further away than the foreground cluster of turbines. Whilst most blade tips and 9 hubs visible would be visible above the horizon, they would be subsumed by the Assel Valley array. There would be a slight increase in turbine density as the proposed turbines. The scale of change during operation is predicted to be Negligible.
Scale of Change to Landscape Character	Given the influence of the operational turbines which is widespread in the surrounding area to the east, the Proposed Development would do little to increase this. The scale of change during operation would be Negligible.
Cumulative	**Scenario 2:** The consented Kirk Hill turbines will be visible in the north east with all hubs above the horizon, 12.7 km from the viewpoint, occupying a partially forested area in the Maybole Foothills. All tips and hub of the consented Chirmorie turbines will be visible to the south at 16.2 km from the viewpoint and would be seen in a slight dip in the landscape, filling space between Arecleoch and Kilgallioch resulting in dense cluster of turbines stretching over the horizon. Assuming the prior presence of other consented developments, effects would be the same as for Craiginmoddie alone. **Scenario 3**: 16 blade tips and 13 hubs of the proposed Clauchrie wind farm would appear 11.4 km to the east southeast, occupying partially forested ground in front of and behind the horizon in an area not less notbaly influenced by existing turbines. Assuming the prior presence of Clauchrie, effects would be the same as for Craiginmoddie alone. **Scenario 4**: Carrick would appear to the east, c.16 km from the viewpoint, visible through Assel Valley and Hadyard Hill turbines, though much of the scheme would be screened by intervening landform and would cause minor increase in turbine density. Craiginmoddie would be seen in amongst this same group, slightly further increasing turbine density but largely imperceptible from the other developments. Assuming the prior presence of Carrick, effects would be the same as for Craiginmoddie alone.

Viewpoint 15	Merrick
Location	At the summit of the Merrick
Distance/ Direction from Development	16.8 km southeast
Landscape Character Type	DWG21 Rugged Granite Upland - Merrick unit (Galloway Hills RSA / Merrick WLA)
Visual Receptors	Recreational walkers
Existing View	Views from this hilltop viewpoint in the rugged uplands are on to open, complex ridgelines which drop into the Plateau Moorlands with Forestry to the south west where some lochs are visible in between large swathes of commercial forestry. Kilgallioch wind farm is visible in its entirety at 16 km from the viewpoint, appearing on partially forested, low rising hills. Looking west, Byne Hill is visible in the distance in clear conditions, with the operational Assel Valley and Tralorg wind farms marking the beginning of the Foothills with Forest LCT to the northwest where they site is located on a thin strip of forestry to the right of existing turbines at Hadyard Hill. Upland landforms screen visibility to the north northwest, with some open views occurring to the north where lochs and forest are again visible in the foreground and turbines at Dersalloch wind farm are visible at 18.5 km from the viewpoint.
Predicted View & Scale of Visual Change	The Proposed Development would appear on a group of hills where turbine development is present, extending the spread of existing arrays into the east. Although the proposed turbines would appear closer and larger in scale than those existing in this part of the landscape, they will appear low in the view and would not be seen to intrude on the more striking elements of the view such as the peaks of Arran in the background. The scale of change during operation is predicted to be Negligible.
Scale of Change to Landscape Character	Although the turbines would be visible in clear conditions, and due to their scale more visible than the current wind turbines which are adjacent, they would have little influence on the landscape of the Rugged Granite Upland LCT. The scale of change during operation would be Negligible.
Cumulative	**Scenario 2:** The consented Chirmorie turbines will be visible in front of the existing Arecleoch at 24 km to the south west and will span most of the gap between Arecleoch and Kilgallioch turbine arrays. A few lade tips of Polquhairn and Knockshinnoch would be visible will be visible in clear conditions between 27 – 29 km to the north with Knockshinnoch appearing behind the east end of the existing Dersalloch array. All of the consented Kirk Hill turbines will be visible 25 km to the northwest in front of Arran. The consented South Kyle and Benbrack wind farms will be fully visible at 18.3 km to the northeast occupying a series of interlocking hills with the bulk of the cluster appearing somewhat dense but very distant. Assuming the prior presence of other consented developments, effects would be the same as for Craiginmoddie alone. **Scenario 3**: Clauchrie would be clearly visible at 10.6 km to the east in a low-lying area in the South Ayrshire Platea Moorlands within widespread commercial forestry. Assuming the prior presence of Cauchrie, effects would be the same as for Craiginmoddie alone.

Viewpoint 15	Merrick
	Scenario 4: Carrick turbines would be visible c. 12 km north northwest of the viewpoint though much of the array would be screened by intervening foreground landform on the ridgeline between the viewpoint and Shalloch on Minnoch. Assuming the prior presence of Carrick, effects would be the same as for Craiginmoddie alone.

Viewpoint 16	Cairnsmore of Carsphairn
Location	At the summit of Cairnsmore of Carsphairn
Distance/ Direction from Development	26.5 km east
Landscape Character Type	DWG19 Southern Uplands
Visual Receptors	Recreational walkers
Existing View	Views are expansive from this hilltop viewpoint in the southern uplands. Visibility is open to the southwest into undulating ridgelines in the Southern Uplands, with rocky upland landforms around the viewpoint screening visibility to the south and east. Visible landform reduces in scale progressively toward the coast in the west, where large areas of forest and occasional lochs are visible behind more rugged upland hilltops, with very distant views to Tralorg, Assell Valley and Hadyard Hill wind farms potentially available in extremely clear conditions to the left of Ailsa Craig on the horizon. The existing Dersalloch wind farm is visible in its entirety at 17.5 km to the west northwest oh partially forested fills with the Maybole Foothills and low coastal areas in the background. Arran is visible on the horizon to the north west, with the flatter territories of the Ayrshire Lowlands to the north behind Undulating upland hills with existing wind farms below the viewpoint.
Predicted View & Scale of Visual Change	The Proposed Development would be visible in front of Ailsa Craig to the west, standing unobstructed in the landscape from this upland viewpoint. The turbines would be seen in addition to more distant existing wind farms on medium scale hills, extending the spread of turbine development toward the viewpoint slightly. The impression of the Proposed Development would be of minor significance to available views from this location with turbines only fully discernible in relatively clear conditions. The scale of change during operation is predicted to be Negligible.
Scale of Change to Landscape Character	This area is known for its characteristically vast views, and though the turbines would be discernible as a feature in a very distant landscape, they would have little or no influence on local landscape. The scale of change during operation would be Negligible.

Viewpoint 16	Cairnsmore of Carsphairn
Cumulative	**Scenario 2:** The consented South Kyle and Benbrack turbine cluster will be visible to the northwest between 4.5 km and 10.5 km with intervening landform at the viewpoint screening some of the closer turbines. The schemes would appear fully backclothed by landform from this elevated viewpoint. The consented Kirk Hill turbines will be barely discernible in the distance to the west northwest 33.5 km away, only be visible in clear conditions. Assuming the prior presence of other consented developments, effects would be the same as for Craiginmoddie alone. **Scenario 3**: a few blade tips of Clauchrie would appear to break the horizon in the west southwest but unlikely to be noticeable. Assuming the prior presence of Clauchrie, effects would be the same as for Craiginmoddie alone. **Scenario 4**: Carrick would be visible in its entirety over 20 km to the west and Craiginmoddie would appear directly beyond, not clearly distinguishable from this. Assuming the prior presence of Carrick, effects would be the same as for Craiginmoddie alone.

A. Technical Appendix 6.5: Wild Land Assessment

A.1 Introduction

A.1.1 The purpose of this Technical Appendix is to provide an assessment of the effects of the Proposed Development on the attributes of potentially affected Wild Land Areas (WLAs).

A.2 Policy and Guidance

A.2.1 Wild Land Areas are not a statutory designation but are Included in Scottish Planning Policy (SPP) as 'Group 2: Areas of significant protection' under the spatial framework advice (SPP, page 39) relating to wind farm development. This requires that any development within a Wild Land Area must "*demonstrate that any significant effects on the qualities of these areas can be substantially overcome by siting, design or other mitigation.*"

A.2.2 Supporting the planning policy, NatureScot have undertaken detailed analysis of Scotland and identified Wild Land Areas and provided maps and descriptions of each. These build on earlier mapped studies which remain of relevance.

A.2.3 This assessment is carried out with reference to the guidance provided in 'Assessing Impacts on Wild Land Areas' (NatureScot, September 2020). The guidance provides a methodology and general principles based on the Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, 2013, Landscape Institute and IEMA (GLVIA3).

A.3 Consultation, Scope and Study Area

A.3.1 NatureScot identify in their 2020 guidance that "*the guidance should only be applied to proposals whose nature, siting, scale or design are likely to result in a significant effect on the qualities of the WLA*" (para 5) and advise that "*An assessment will only be required where it has been deemed necessary by the competent authority.*" (para 6).

A.3.2 As set out in Table 6.1 within EIAR Volume 1, a Wild Land Assessment has been requested by NatureScot for the Merrick WLA. The consultation responses place a particular focus the potential impact of visible aviation lighting of the Proposed Development both on its own and cumulatively with other proposed wind farms.

ZTV and Study Area

A.3.3 The ZTV on Figure 6.6 illustrates that there would be very limited potential visibility within the Merrick WLA, predominantly limited to hilltops and northwest facing slopes along the north western edge including Caerloch Dhu, Shalloch on Minnoch, Tarfessock, Kirriereoch Hill, Merrick, Benyellary and Bennan. There would also be some very limited areas of potential visibility in the north eastern part of the WLA, on the tops of Hoodens Hill and Macaterick, although the majority of the WLA would have no visibility of the Proposed Development.

A.3.4 This assessment focusses on the elevated areas in the north western section of the WLA where there would be potential views of the Proposed Development.

A.4 Approach

Methodology and Significance Criteria

A.4.1 The approach to WLA assessment in accordance with the guidance follows a five step process, similar to standard LVIA methodology set out in GLVIA3:

- Define the study area and scope of assessment (see section A.3 above)
- Verify the WLA baseline;
- Assess the sensitivity of the qualities;
- Assess the magnitude of the effects;
- Judgement of significance of effect.

A.4.2 The 2020 NatureScot guidance notes that the judgment of sensitivity is based on the "*nationally important value attached to WLAs and susceptibility to the type of change proposed*". This judgement is similar to sensitivity judgements for landscape and visual

receptors within the LVIA although the value of all wild land qualities is assumed to be the same. Table 1 below illustrates how the judgement is made in this assessment:

Table 1: Sensitivity of Wild Land

WILD LAND		Susceptibility			
		High	Medium	Low	Negligible
Value	National	High	High/Medium	Medium	Low

A.4.3 Judgements of the magnitude and significance of effects are made in the same manner as within the LVIA. However, the consideration of whether an effect is 'significant' or not may differ given the specific criteria set out in the 2020 NatureScot technical guidance which requires that where *"effects are identified that result in a material change in the experience of any of the wild land qualities, this is considered to be significant"* (paragraph 29).

Wild Land Qualities

A.4.4 The 2020 NatureScot guidance identifies the key qualities of Wild Land Areas, in general, to be:

"WLAs have the following physical attributes:

- *a high degree of perceived naturalness;*
- *a lack of modern human artefacts or structures;*
- *little evidence of contemporary land uses;*
- *landform which is rugged, or otherwise physically challenging; and*
- *remoteness and / or inaccessibility.*

The perceptual responses evoked by these physical attributes include:

- *a sense of sanctuary or solitude;*
- *risk or, for some visitors, a sense of awe or anxiety;*

- *perceptions that the landscape has arresting or inspiring qualities; and*
- *fulfilment from the physical challenge required to penetrate into these places."*

A.4.5 The documented and manifest qualities for each of the individual Wild Land Areas (WLAs) vary both between and within the WLAs and are considered below.

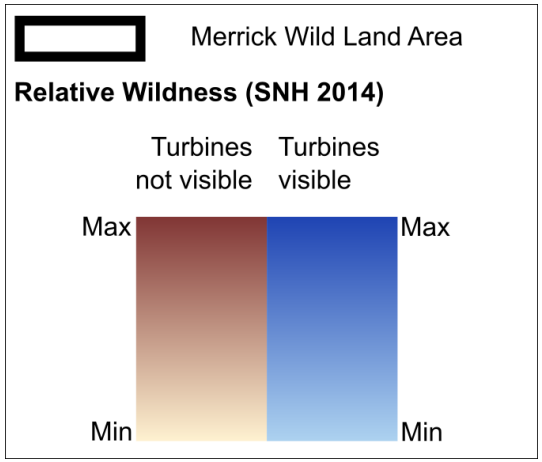
A.5 Assessment

Wild Land Area: Merrick

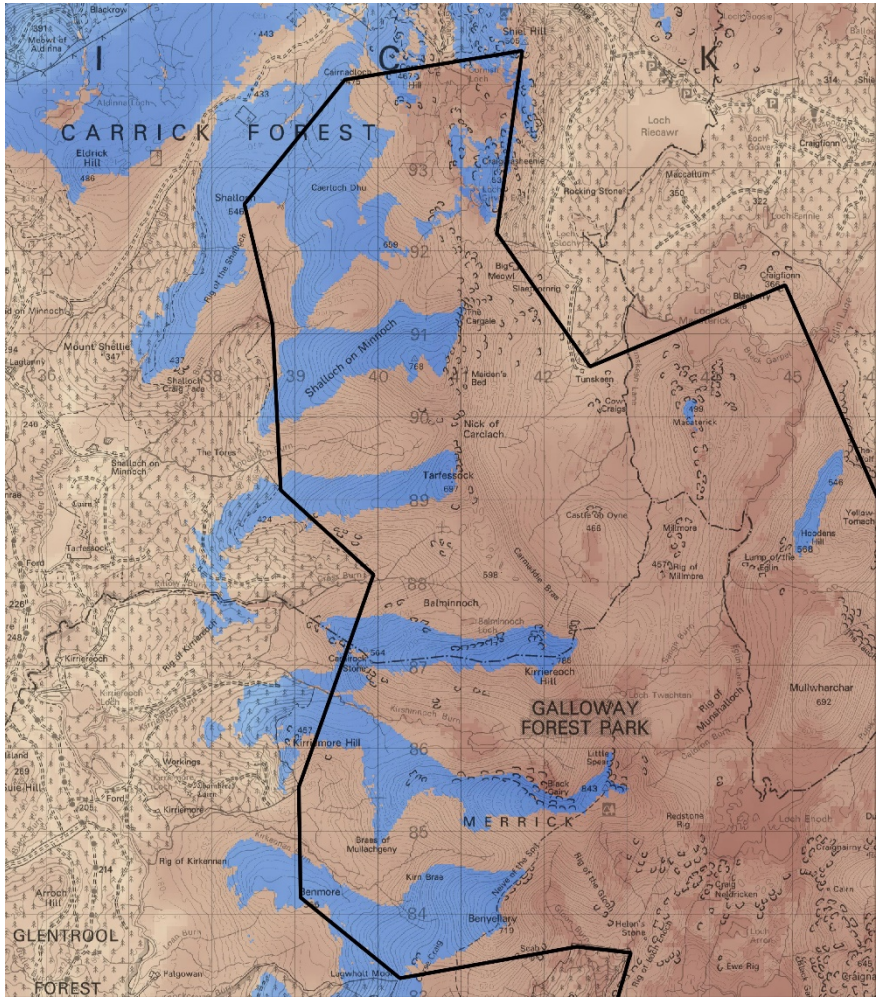
Baseline

A.5.1 The following inset maps show relative wildness within the study area (SNH 2014 data), overlaid with any theoretical visibility of the Proposed Development.

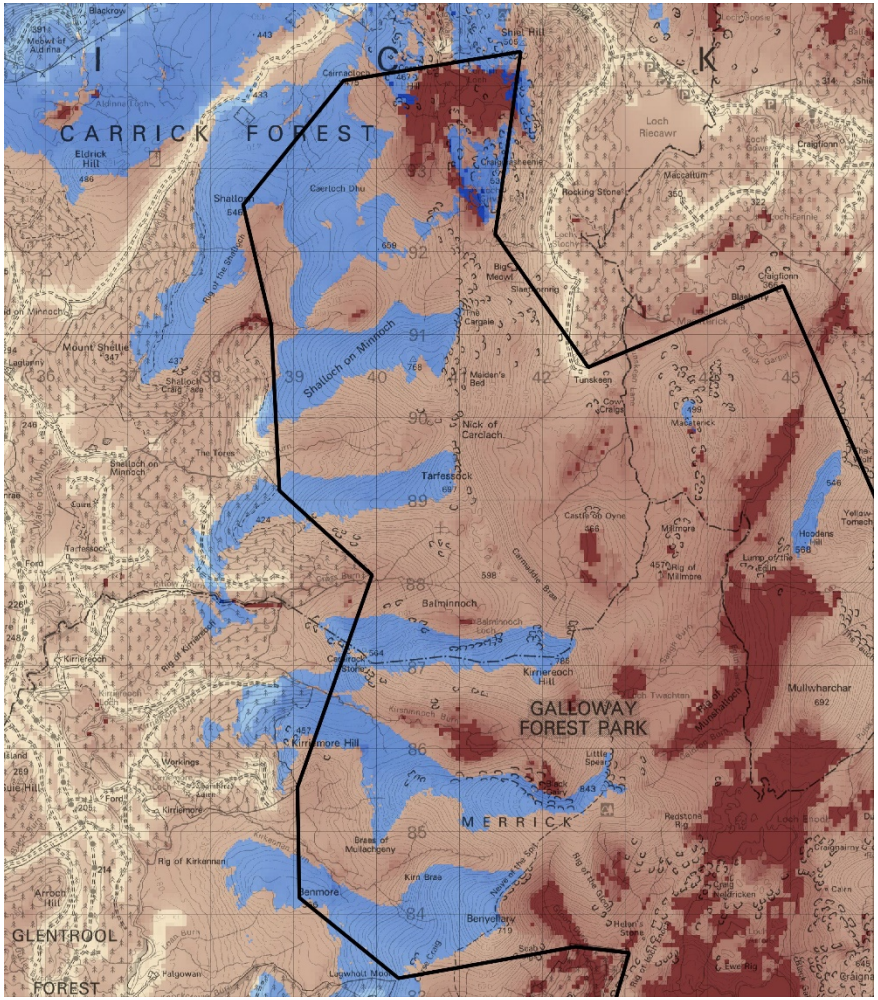
Key to Insets 1- 5



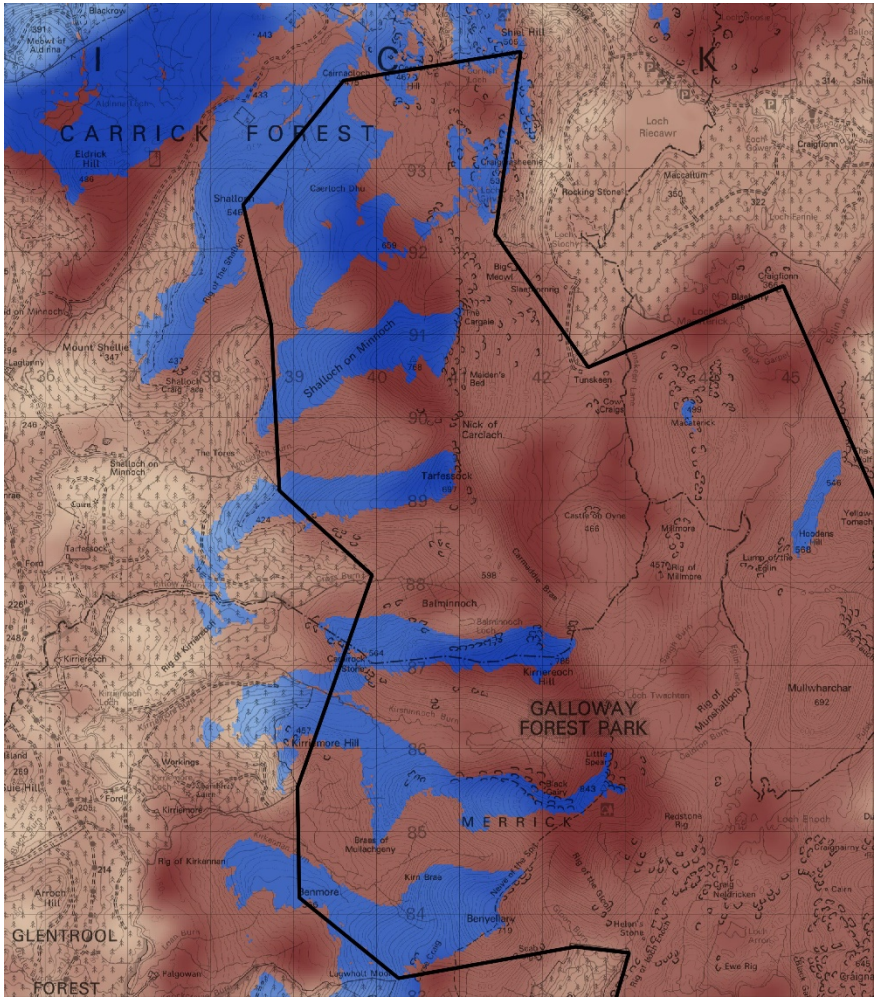
Inset 1: Composite Wildness



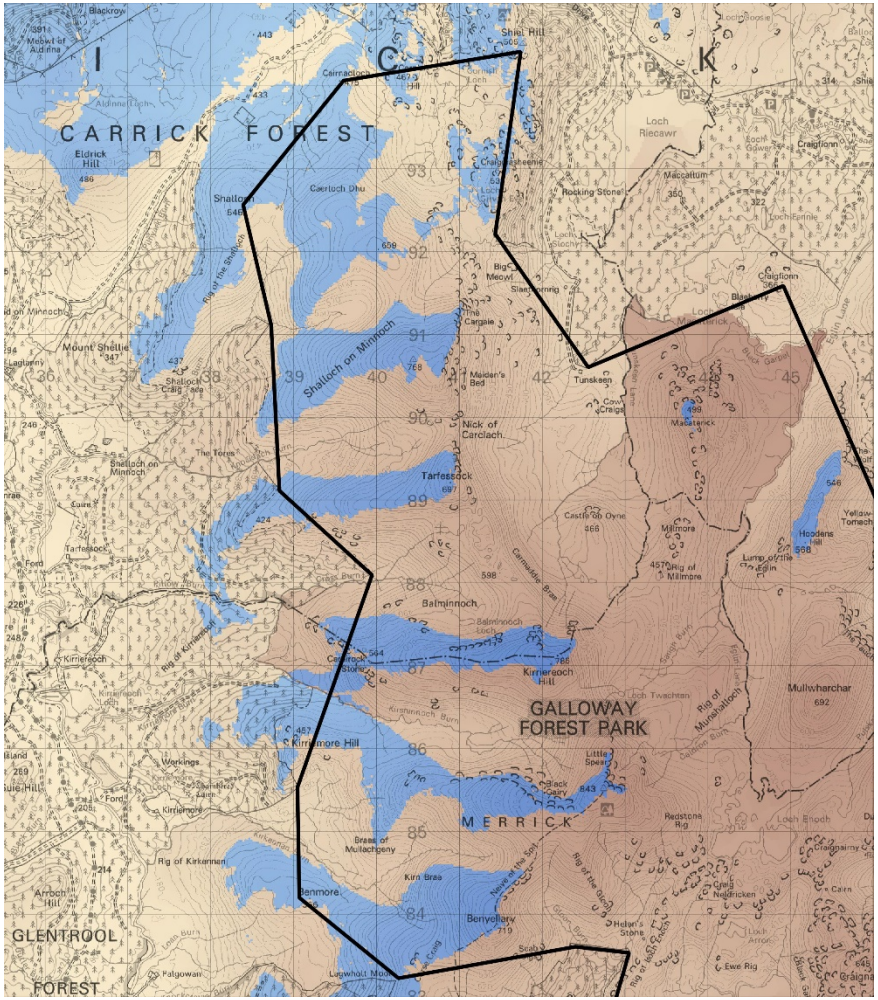
Inset 2: Wildness – Absence of Modern Artefacts



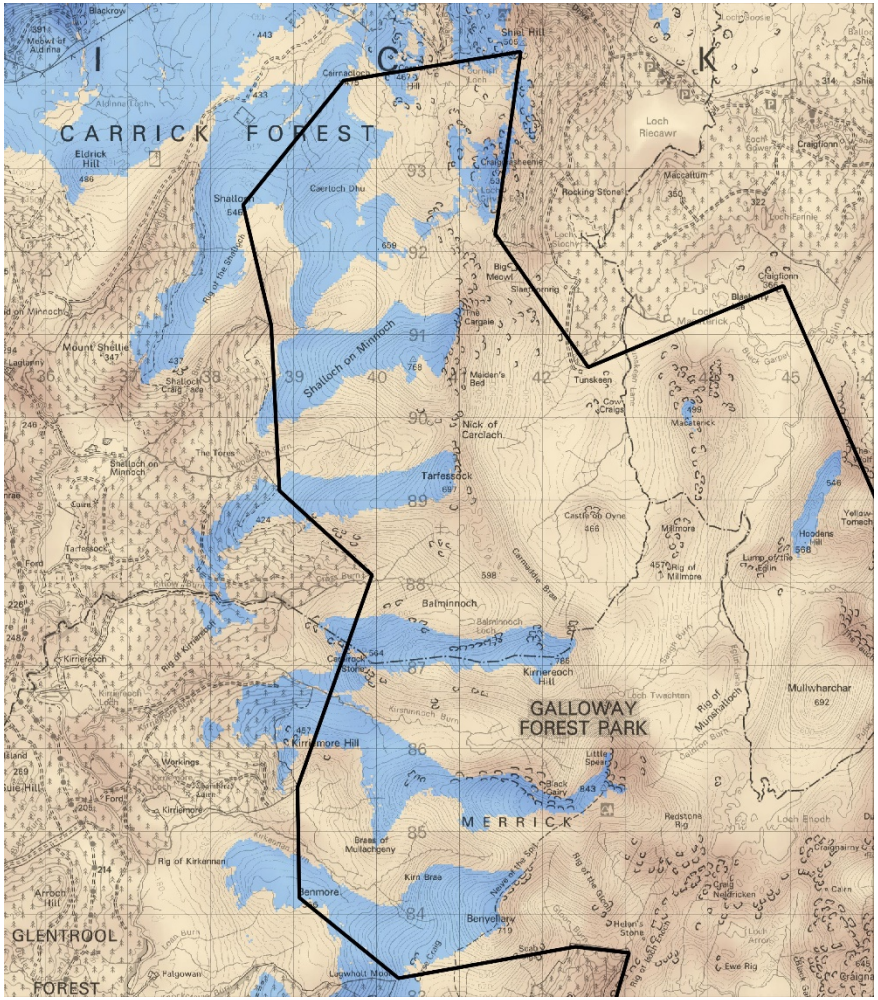
Inset 3: Wildness – Perceived Naturalness



Inset 4: Wildness – Remoteness from Roads and Ferries



Inset 5: Wildness – Rugged or Challenging Terrain



A.5.2 The key attributes and qualities of the WLA as set out in the 2017 Merrick WLA description are:

- *A relatively small wild land area but with a strong perception of naturalness, few human artefacts and little contemporary land use*
- *A wild land area that contrasts with the adjacent Forest Park, especially in terms of human activity*
- *Human elements are widely visible from the tops and outermost slopes but lower-lying areas have a much stronger sense of remoteness*
- *A rugged landscape that provides a surprisingly high degree of physical challenge*

A.5.3 Based on a review of the relative wildness information presented above, and site work, the following key points are noted in relation to the baseline and are taken into account in the assessment of susceptibility:

- Wildness qualities are more strongly expressed within the lower lying areas to the core of the WLA where landform would prevent potential views of the proposed development, as illustrated by the ZTV.
- Attributes of remoteness and ruggedness are relatively weakly expressed in this WLA.
- Main points of access to the WLA are at the northern end, in the vicinity of Stinchar Bridge and Loch Bradan, and from Glen Trool. These areas contain various car parks just outside the WLA boundary and offer clearly signed and well maintained trails giving easier access to some of the more frequently visited hills within the WLA including Merrick, Benyellary and Cornish Hill. These are well used throughout the year and diminish the sense of remoteness, solitude and risk associated with these areas.
- The Proposed Development is not located within the WLA, it is situated 8.4 km northwest of the WLA boundary.
- The settled coastal plain forms a backdrop to outward views from hilltops to the western side of the WLA that fall within the ZTV. Contemporary human land use is widely appreciated from these locations including extensive commercial forestry and coastal settlement along with other commercial and agricultural uses.
- Existing wind farms are widely visible from hilltop locations that fall within the ZTV for the proposed development. Other vertical structures, such as the masts on Brown Carrick Hill and hilltop monuments south of Maybole and Straiton are also visible from some of these areas.

Mitigation

A.5.4 Embedded landscape and visual mitigation is discussed in EIAR Volume 1, Chapter 6 at 6.83 and is considered within the assessment of effects below.

Effects

A.5.5 As set out within the LVIA chapter, potential effects on the Wild Land Area would arise as a result of:

- Visual changes arising from the introduction of further wind turbines to views from hilltops during the day, covering a limited extent of the WLA
- Visual changes arising from the introduction of further visible aviation lighting in to views from hilltops at night, covering a limited extent of the WLA

A.5.6 A detailed assessment of how the changes described above may affect the Would Land Area, considering the sensitivity of each of the key attributes / qualities; and setting out the magnitude of effects is provided in Table 2 below.

Table 2: Effects on the Wildness Attributes of the Merrick WLA

Key attribute / quality	Susceptibility and Potential Effects	Scale	Extent	Duration
A relatively small wild land area but with a strong perception of naturalness, few human artefacts and little contemporary land use	This quality is concerned with past and present land use and human artefacts found within the WLA itself, therefore the susceptibility of this attribute to the Proposed Development outside this WLA is judged to be Negligible. The Proposed Development would have no physical impact on the WLA and would have no notable impact on this quality.	Negligible	Negligible	Permanent
A wild land area that contrasts with the adjacent Forest Park, especially in terms of human activity	The Proposed Development is located outside of both the WLA and the adjacent Forest Park. The Proposed Development would not result in any physical change to the Forest Park nor to the level of human activity within it and therefore the susceptibility of this attribute is judged to be Negligible.	Negligible	Negligible	Permanent

Key attribute / quality	Susceptibility and Potential Effects	Scale	Extent	Duration
	The Proposed Development would not change the existing relationship between the WLA and the Forest Park and therefore would have no impact on this quality.			
Human elements are widely visible from the tops and outermost slopes but lower-lying areas have a much stronger sense of remoteness	The Proposed Development is located outside of the WLA and, as illustrated by the ZTV, only hilltops and outer slopes to the northwest of the WLA would have potential views. There would be no impact on the lower lying central areas where there is a stronger sense of remoteness (see Inset 4 above). Given the location and nature of the Proposed Development the impacts are likely to be consistent with this attribute and therefore the susceptibility of this attribute is judged to be Low. Day-time impacts: As illustrated by viewpoints 9, 12 and 15 and Figure 6.8 there is extensive, existing wind energy development visible to the north, west and east from hilltops on the western side of the WLA. The closest of the existing schemes; Dersalloch, Hadyard Hill and Mark Hill, are all located within approximately 9-12km from the WLA. In addition to the existing turbines there are further extensive clusters of consented wind farm development to the northeast (South Kyle, Benbrack – c. 12km) and southwest (Chirmorie – c. 20km). The Proposed Development would introduce further turbines to the north, adjacent to the existing Hadyard Hill turbines and at a similar distance to Dersalloch, in these panoramic views from hilltops. The proposed turbines, although taller, would not generally introduce views of this contemporary land use where existing or consented turbines are not already be visible, as illustrated by Figure 6.8. Similarly, they would not fundamentally	Small	Limited	Permanent

Key attribute / quality	Susceptibility and Potential Effects	Scale	Extent	Duration
	alter the outlook or experience on these hilltops such that they would notably diminish the current sense of remoteness (relatively weakly expressed here, as set out at A.5.3) and sanctuary or sense of naturalness on these hilltops. Night-time impacts: The Merrick WLA description does not identify darkness or any other night-time qualities as key attributes nor do these feature in any of the descriptions of the key attributes that are identified. However, it does note that the area lies within the Galloway Dark Sky Park. This area is currently very dark, as illustrated by Figure 6.12, and existing wind development seen from the WLA does not feature visible aviation lighting. However, extensive lighting associated with settlement and other development is seen to the north and west, as illustrated by the night-time visualisations at viewpoint 9. This is most prominent on the coast, associated with larger settlements including Girvan, Ayr and those further north, but also extends inland where lights associated with smaller villages and dispersed rural settlement are also clearly seen. Some existing aviation lighting, associated with other types of structure, is also visible although generally quite distant. The Proposed Development would introduce a group of red aviation lights seen between 8.4 km – 9.9 km at their closest, although would be more distant from most areas of the WLA within the ZTV. In closer, lower areas at the northern end of the WLA these would be seen against the sky and quite distinct from other existing lighting, as illustrated by viewpoint 9. In other more elevated areas however, such as Merrick or Shalloch on	Medium	Limited	Permanent

Key attribute / quality	Susceptibility and Potential Effects	Scale	Extent	Duration
	Minnoch, the lights would be seen set against the wider context of other existing lighting along the coast. Cumulative impacts: Notable cumulative effects are most likely to arise with Clauchrie (planning) and Carrick (scoping). These are located notably closer to the WLA than the Proposed Development, at 5.8km west and 3.6km northwest respectively, and both comprise turbines over 150m which would require visible aviation lighting. If either of these were present then the addition of the Proposed Development would result in a lesser degree of change to this quality given the existing presence of large scale turbines at closer proximity.	Small	Limited	Permanent
A rugged landscape that provides a surprisingly high degree of physical challenge	As set out at A.5.3, this quality is relatively weakly expressed within the WLA. It relates to the landform and physical challenge faced within the WLA and resultant sense of remoteness (also relatively weakly expressed). The susceptibility of this attribute is judged to be Negligible. The Proposed Development would have no physical impact on the WLA and would have no impact on this quality.	Negligible	Negligible	Permanent

A.5.7 Only one of the identified wildness attributes may be notably affected by the Proposed Development. Considering the susceptibility of all the identified wildness qualities along with their National value, the overall sensitivity of the Merrick WLA to the Proposed Development would be Medium/Low. Considering the scale, extent and duration of potential effects on wildness attributes as set out in Table 2, these would result in a change to the wildness qualities of Slight magnitude.

A.5.8 Taking into account the Medium/Low sensitivity and Slight magnitude of change, the overall effect on the Merrick WLA would be of **Moderate/Minor significance and Adverse** due to the slightly increased presence of manmade structures seen from elevated locations within the north western part of the WLA. There would be no 'material change in the experience of any of the wild land qualities' and these effects would not be significant.

A. Technical Appendix 6.7: Night-time Viewpoint Analysis

A.1 Introduction

A.1.1 A viewpoint analysis with regard to the night-time effects has been carried out from all viewpoint locations to inform the assessment of the likely night-time effects.

A.1.2 As noted in the night-time assessment in Chapter 6, the receptors at night are different from those in the day and for those which are the same, the sensitivity may be different at night.

A.1.3 A description of cumulative sites with lighting is noted in Chapter 6 at 6.269.

A.2 Night-time Viewpoint Analysis

VP	Location	Night-time receptor	Night-time changes	Cumulative Night-time
1	South Balloch 3.1 km SE	**Landscape:** SA13 Intimate Pastoral Valley **Visual:** Residents and road users in the Stinchar Valley	6 nacelle lights and 2 sets of tower lights would be visible above the ridgeline when looking north from this viewpoint.	There are no other consented or proposed turbines with aviation lights that would be visible from this viewpoint.
2	Hadyard Hill 3.6 km W	**Landscape:** SA 17c Foothills with Forest and Wind Farm **Visual**: None, hillwalkers unlikely at night and there would be no amenity value to the view	All 14 nacelle lights and the majority of the tower lights would be visible from this close, elevated viewpoint. One set of tower lights would be screened by intervening landform while one other set may also be screened by forestry.	Nacelle lights on around 5 of the Carrick turbines would be visible at 6.5 km to the east, directly beyond Craiginmoddie. Nacelle lights at Clauchrie and Knockodhar would also be widely visible at around 8.2 – 10 km to the south. Directly beyond these, further lights on the at Stranoch 2, Arecleoch and Kilgallioch Extensions would also be visible although these would be very distant features, over 20 km from the viewpoint.

VP	Location	Night-time receptor	Night-time changes	Cumulative Night-time
3	Dailly 4.4 km NW	**Landscape:** Middle Dale (SA 12/SNH 71) **Visual:** Residents and road users in the vicinity of Dailly	Up to 11 nacelle lights would be visible above the valley sides although one may be screened by intervening forestry. 7 sets of tower lights may also be visible although 2 sets are likely to be screened by forestry.	Up to 3 nacelle lights at Carrick would be visible behind Craiginmoddie at around 6.6 km although 2 of these may be screened by forestry.
4	B741 near Ruglen 4.6 km N	**Landscape:** SA12 Middle Dale **Visual:** Road users in the Girvan Valley (north east of Dailly)	No proposed aviation lights would be visible.	No aviation lights on other schemes would be visible.
5	Barr 4.6 km SW	**Landscape:** SA13 Intimate Pastoral Valley **Visual:** Residents and road users in the vicinity of Barr	12-13 of the nacelle lights would be visible over the intervening terrain although a number of these would be partially screened or filtered through the canopy of roadside trees. This would be most pronounced in summer.	2 lights at Carrick turbines may be visible to the side of Craiginmoddie at 7.5 km or more although intervening vegetation may provide some screening. Some glimpses of lights on Clauchrie and Knockodhar may also be possible through gaps between houses to the south and southwest, the closest of which would be around 4 – 5 km away, although these would be well screened or filtered by vegetation and buildings within the village.
6	Crosshill 6.9 km N	**Landscape**: Middle Dale (SA 12/SNH 71 **Visual:** Road users in the Girvan Valley (north east of Dailly)	9 nacelle lights would be seen just above the skyline, no tower lights would be visible.	Up to 4 lights at Carrick would be visible adjacent to Craiginmoddie at a similar distance. One of these may be screened by intervening forestry.

VP	Location	Night-time receptor	Night-time changes	Cumulative Night-time
7	Colonel Hunter Blair Monument, Kildoach Hill 7.6 km NE	**Landscape**: SA17b Foothills with Forest West of Doon Valley **Visual**: None, hillwalkers, and visitors to the monument unlikely at night and there would be no amenity value to the view	9 nacelle lights and 5 tower light would potentially be visible over intervening hills although one nacelle light and one hub light may be screened by intervening forestry.	All of the Carrick turbines would be visible here with most nacelle and tower lights in open view immediately adjacent to Craiginmoddie. They would be closer, more spread out and occupying a wider field of view. One or two lights on the proposed Clauchrie turbines may also be distantly visible beyond Carrick.
8	North Threave 8.2 km NW	**Landscape:** SA17d Maybole Foothills **Visual:** Road users and dispersed settlement	14 nacelle lights and 13 sets of tower lights would be visible, spread out along the skyline, with one tower light screened by intervening forestry.	Some, but not all of the lights on the proposed Carrick turbines would be visible behind and to the left of Craiginmoddie. Very distant turbines lights on some of the proposed Clauchrie, Knockodhar and the Arecleoch Extension would be seen to the south ranging from 13 km to well over 20 km away.
9	Cornish Hill 9.1 km SE	**Landscape**: SA21 Rugged Uplands, Lochs and Forest **Visual:** infrequent night-time visitors to hilltop locations in the DSP	14 nacelle and 12 sets of tower lights would be visible spread out along the skyline.	All of the lights on the proposed Carrick turbines would be visible with the nearest seen at c. 4 km northwest of the viewpoint. A few lights on Overhill may also be visible just on the skyline at over 17 km away to the northeast. Landform would screen any other turbine lighting in the study area.
10	B734 near Cairnwhin 8.9 km SW	**Landscape**: SA13 Intimate Pastoral Valley **Visual**: Road users and dispersed settlement	6 nacelle lights and 2 sets of tower lights would be visible as a fairly tight cluster on the skyline along the valley.	Around 7 of the nacelle lights on the Carrick turbines would be visible extending across the hilltop to the northeast at around 11.5 km away, to the right of the cluster at Craiginmoddie.
11	Maybole War Memorial 9.9 km N	**Landscape**: SA17d Maybole Foothills **Visual:** Settlement	9 nacelle lights and 4 tower lights would be visible along the skyline from here.	Up to 7 lights on the Carrick turbines would be seen along the skyline at a similar distance to Craiginmoddie, together appearing as a single larger group.

VP	Location	Night-time receptor	Night-time changes	Cumulative Night-time
12	Shalloch on Minnoch 11.3 km SE	**Landscape**: SA21 Rugged Uplands, Lochs and Forest **Visual:** infrequent night-time visitors to very remote hilltop locations in the DSP	All nacelle and tower lights would be visible from here as a fairly even line back clothed against low lying coastal areas	All of the lights on the Proposed Carrick turbines would be visible at 7 km to the north west, slightly overlapping in front of Craiginmoddie. All of the lights on the proposed Clauchrie turbines would be visible at 7.5km to the west with many lights from the proposed Knockodhar appearing behind at 13.4km distance. Knockodhar lights may be subject to some screening by future forestry operations. Looking south west, lights from the proposed Arecleoch Extension, Stranoch 2 and Kilgallioch Extension would be seen in their entirety, ranging from 23km to 32km in distance. These schemes would appear separated, with clear gaps between visible turbine lighting in this direction. Most of the proposed Overhill turbines would be visible to the north west at 20.7km.
13	A77 north of Girvan 11.3 km W	**Landscape:** SA11 Lower Dale **Visual:** settlement, road users	None - no lights would be visible from here	None - no lights would be visible from here

VP	Location	Night-time receptor	Night-time changes	Cumulative Night-time
14	Byne Hill 13.2 km SW	**Landscape:** SA17e Coastal Foothills **Visual:** None, hillwalkers, and visitors to the viewpoint unlikely at night and there would be no amenity value to the view	9 nacelle lights and 3 tower lights would be visible just above the skyline	Some of the lights on the proposed Carrick turbines would be visible at 16 km to the north east through and beside Craiginmoddie. All of the lights on the proposed Knockodhar turbines would be visible at 7.2 km to the south east, with some but not all of the lights on the proposed Clauchrie turbines appearing behind them. Towards the south, many of the lights on the proposed Arecleoch Extension would be visible at 12.8 km, with distant glimpses of one or two each of the lights on the proposed Stranoch 2 and Kilgallioch Extension appearing in the background between 18 km to 25 km from this elevated viewpoint.
15	Merrick 16.8 km SE	**Landscape:** DWG21 Rugged Granite Upland – Merrick unit **Visual**: infrequent night-time visitors to very remote hilltop locations in the DSP	All nacelle and tower lights would be visible from here as a fairly even line back clothed against low lying coastal areas	Clear, yet distant views of all of the lights on the proposed Kilgallioch Extension, Stranoch 2 and Arecleoch Extension would be available to the south west between 23 km and 32 km from the viewpoint. All of the lights on the proposed Clauchrie and Knockodhar turbines would be visible in the west between 10.5km and 20.1 km from the viewpoint. Some of the lights on the proposed Carrick turbines would be seen to join the Craiginmoddie array, though most would be screened by foreground landform. Almost all of the lights on the proposed Overhill turbines would be visible to the north at 24.7 km from the viewpoint.

VP	Location	Night-time receptor	Night-time changes	Cumulative Night-time
16	Cairnsmore of Carsphairn 26.5 km E	**Landscape:** DWG19 Southern Uplands **Visual:** None, hillwalkers, and visitors to the viewpoint unlikely at night and there would be no amenity value to the view	14 nacelle lights and 12 sets of tower lights would be visible in the far distance	All of the lights on the proposed Carrick turbines would be visible at 24.5 km to the west in from of Craiginmoddie. Most of the lights on the proposed Overhill turbines would be visible at 15 km to the north west