

TA 4.8: Consented Scheme LVIA

TECHNICAL APPENDIX 4.8: CONSENTED SCHEME LVIA

1 Introduction

- 1.1 This Technical Appendix considers the likely significant effects on landscape and visual amenity associated with the construction, operation and decommissioning of the Consented Scheme.
- 1.2 The 2007 Environmental Statement (ES) was undertaken using GLVIA2¹ which was best practice guidance at the time. It remained current while the assessment was undertaken for the 2013 ES Addendum. Although GLVIA3² was published in 2013, it was agreed with consultees that GLVIA2 should continue to be used, for consistency. This approach was reiterated when the work was undertaken for the 2014 Further Information Report (FIR). Given the time that has passed since 2014 and the acceptance of GLVIA3 as recognised best practice, it was determined that the assessment of the Proposed Varied Development should utilise the updated guidance. In order to allow for comparison of the predicted effects of the Consented Scheme and the Proposed Varied Development, this landscape and visual assessment of the Consented Scheme has been undertaken using GLVIA3. It identifies the predicted effects of the Consented Scheme on landscape and visual amenity.
- 1.3 This Technical Appendix is supported by the figures and annexes in Table 4.8.1 below.

Table 4.8.1: Supporting Figures and Technical Appendices
Annex 1: Technical Appendix 4.8 Figures
• TA Figure 4.8.1: Wider Study Area and Consented Scheme Zone of Theoretical Visibility
• TA Figure 4.8.2: Designated Landscapes with Consented Scheme ZTV
• TA Figure 4.8.3: Landscape Character Types with Consented Scheme ZTV
• TA Figure 4.8.4: Visual Receptors with Consented Scheme ZTV
• TA Figure 4.8.5: VP1: Ben Griam Beg Baseline Photo and Wireline
• TA Figure 4.8.6: VP2: Cnoc Riabhach Baseline Photo and Wireline
• TA Figure 4.8.7: VP3: Loch nan Clach Geala Baseline Photo and Wireline
• TA Figure 4.8.8: VP4: East of Melvich Baseline Photo and Wireline
• TA Figure 4.8.9: VP5: Strathy Baseline Photo and Wireline
• TA Figure 4.8.10: VP6: Bettyhill Viewpoint Baseline Photo and Wireline
• TA Figure 4.8.11: VP7: A836 west of the B871 Baseline Photo and Wireline
• TA Figure 4.8.12: VP8: Sgor Chaonasaid Baseline Photo and Wireline
• TA Figure 4.8.13: VP9: Creag na h-Iolaire Baseline Photo and Wireline
• TA Figure 4.8.14: VP10: Beinn Ratha Baseline Photo and Wireline
• TA Figure 4.8.15: VP11: Forsinard Baseline Photo and Wireline
• TA Figure 4.8.16: VP12 – Moine House Baseline Photo and Wireline
• TA Figure 4.8.17: VP13 – A836 near Middleton Baseline Photo and Wireline
• TA Figure 4.8.18: VP14 – Dunnet Head Baseline Photo and Wireline
Annex 2: Landscape Assessment Tables

¹ Landscape Institute (LI) / Institute of Environmental Management and Assessment (IEMA), (2002), *Guidelines for Landscape and Visual Impact Assessment, Second Edition*.

² Landscape Institute (LI) / Institute of Environmental Management and Assessment (IEMA), (2013), *Guidelines for Landscape and Visual Impact Assessment, Third Edition*.

Table 4.8.1: Supporting Figures and Technical Appendices

Annex 3: Visual Assessment Tables

Competent Expert Summary

- 1.4 Details of the Competent Expert who carried out this assessment are included under section 4.2 in Chapter 4: Landscape and Visual Amenity (EIAR Volume 2) and in the table presenting relevant qualifications and experience in Technical Appendix 1.2 (EIAR Volume 4).

2 Methodology

Scope of the Assessment

- 2.1 This LVIA has been prepared with reference to GLVIA3 and Landscape Character Assessment: Guidance for England and Scotland³. The scope has been informed by best practice guidance and the consultation process (see Technical Appendix 1.1 (EIAR Volume 4)).
- 2.2 The assessment considers all elements of the Consented Scheme during the construction phase and during operation, as described in Table 2.2 of Chapter 2: Description of Development (EIAR Volume 2). It identifies predicted effects that could arise as a result of the Consented Scheme on the landscape designations, landscape character and the visual amenity of those present within the landscape.
- 2.3 The CLVIA of the Proposed Varied Development found that significant effects would be limited to VP1 Ben Griam Beg. Given the improbability that any additional significant effects would be experienced as a result of the smaller turbines for the Consented Scheme, an updated CLVIA of the Consented Scheme against the 2019 cumulative development baseline was scoped out.
- 2.4 In addition to this, an assessment of Wild Land Areas (WLAs), as defined by Scottish Natural Heritage (SNH), has been scoped out of the Consented Scheme assessment. This is in line with the Scottish Ministers Determination of Strathy South wind farm Section 36 Application (dated 27th April 2018), which stated “*Ministers agree with and adopt the Reporter’s conclusion that the character and qualities of wild land areas would not be adversely affected by the proposed development*”. In addition, and most recently, in their scoping response (dated 31 May 2019) SNH confirmed that “*to date we [SNH] have advised that the Strathy South wind farm [the Consented Scheme] would be unlikely to significantly adversely affect the qualities of the East Halladale Flows Wild Land Area*”.
- Study Area*
- 2.5 Current guidance recommends a study area of 40 km for turbines with a tip height of 135 m, and 45 km radius for turbines with a tip height of 200 m. Therefore, for consistency and comparison purposes with the Wider Study Area for the LVIA of the Proposed Varied Development, a 45 km radius from the outermost turbines has been used for the Wider Study Area of the Consented Scheme. This is considered to be the maximum distance within which any significant landscape or visual effect could be experienced for the Proposed Varied Development and allows for direct comparison with the Consented Scheme. In line with the LVIA of the Proposed Varied Development, a smaller study area of 20 km (the Detailed Study Area) has been defined for the more fine-grained assessment of the Consented Scheme as well.
- 2.6 The study areas have been applied as described in the following subsections.

³ Swanwick, C and Land Use Consultants (2002): *Landscape Character Assessment: Guidance for England and Scotland*, SNH / The Countryside Agency.

LANDSCAPE ASSESSMENT

- 2.7 All designated landscapes within the Wider Study Area have been given consideration within the assessment of the Proposed Varied Development and assessment of the Consented Scheme. Following an initial review, where effects from the Proposed Varied Development have been identified as unlikely, these areas were scoped out of the assessment for the Consented Scheme.
- 2.8 Following an initial appraisal of the Proposed Varied Development, it was considered that predicted significant effects on landscape character would be limited to the Detailed Study Area. The detailed assessment of effects on landscape character for both the Proposed Varied Development and the Consented Scheme, have therefore been concentrated within the 20 km Detailed Study Area.

VISUAL ASSESSMENT

- 2.9 Within the Wider Study Area, a series of 14 viewpoints (VPs) have been selected in consultation with SNH and The Highland Council (THC). These VPs form the basis of the visual assessment of both the Proposed Varied Development and the Consented Scheme.
- 2.10 In addition to the viewpoint-based assessment, a more targeted assessment of potential effects of the Consented scheme on potential visual receptors within the Detailed Study Area has taken place. This has considered views from settlements and residential areas and routes.

Baseline Conditions

- 2.11 Establishment of the baseline conditions including identification of potential landscape and visual receptors has been undertaken as part of the assessment of the potential effects of the Proposed Varied Development. Details are set out in Chapter 4: Landscape and Visual Amenity (EIAR Volume 2).

Identification of Potential Effects

- 2.12 The second step in the assessment process involves the identification of potential effects which could occur as a result of the interaction of the impacts of the Consented Scheme with the identified landscape and visual receptors.
- 2.13 The assessment takes into account direct effects upon existing landscape elements, features and key characteristics and also indirect effects which could occur secondary to changes affecting another landscape component or area. The Zone of Theoretical Visibility (ZTV) is used as a tool to gauge the extent of potential indirect change, supported by targeted field surveys.
- 2.14 Consideration is given to how effects on visual receptors could arise from aspects of the Consented Scheme, and how these changes could be accommodated in the existing baseline view obtained from receptors. The likely perceived value of a particular view to the viewer is considered, taking into account the nature of the receptor and the potential activity they may be involved in, and factors such as elevation, extent and key features or attractions which may feature in the view.

Assessment of Residual Effects

Professional Judgement

- 2.15 GLVIA3² places a strong emphasis on the importance of professional judgement in identifying and defining the significance of landscape and visual effects. As part of this assessment, professional judgement has been used in combination with structured methods and criteria to evaluate landscape value and landscape and visual sensitivity, magnitude and significance of effect. The assessment has been undertaken and verified by two Chartered Landscape Professionals to provide a robust and consistent approach.

Key Stages of the Assessment

- 2.16 GLVIA3 suggests that landscape and visual effects are assessed from a clear understanding of the development proposed and any mitigation measures which are being adopted.
- 2.17 The GLVIA3 methodology for landscape assessment involves an appreciation of the existing landscape resource, the susceptibility of its key components to accept the change proposed, and an understanding of the potential effects which could occur and how these could affect these key components.
- 2.18 Familiarity with the site and the extent, nature and expectation of existing views is a key factor in establishing the visual sensitivity in terms of the development proposed. The guidelines require evaluation of magnitude of change to views experienced by sensitive receptors, comprising individuals living, working, travelling and carrying out other activities within the landscape, and subsequent evaluation of effect significance.
- 2.19 The potential to mitigate adverse effects should also be considered for both landscape and visual assessment.
- 2.20 There are five key stages to the assessment:
- establishment of the baseline;
 - appreciation of the Consented Scheme;
 - identification of key landscape and visual receptors;
 - identification of potential landscape and visual effects; and
 - assessment of landscape and visual effect significance (residual effects).
- 2.21 Detailed methods and criteria for the above key stages are included under the relevant methodology sections for landscape and visual amenity in Chapter 4: Landscape and Visual Amenity (EIAR Volume 2).

APPRECIATION OF THE CONSENTED SCHEME

- 2.22 Appreciation of the Consented Scheme involves the accumulation of a thorough knowledge of the proposal, its nature, scale and location within the baseline landscape or visual context, and any peripheral or ancillary features proposed. Analysis of the proposed activities and changes which would take place leads to an understanding of the potential effects that may occur. As part of this process, the ZTV diagram has been used to identify the potential range of effects.

IDENTIFICATION OF KEY RECEPTORS

- 2.23 Key receptors identified in Tables 4.2.1, 4.2.2 and 4.2.4 and paragraphs 4.5 and 4.7 of Technical Appendix 4.2 (EIAR Volume 4) for inclusion in the assessment of the Proposed Varied Development are considered in this assessment of the Consented Scheme.

Criteria for Assessing Sensitivity of Receptors

- 2.24 Criteria for the assessment of sensitivity of receptors is included in paragraphs 4.4.35 through 4.4.40 under Section 4.4 of Chapter 4: Landscape and Visual Amenity (EIAR Volume 2).

Criteria for Assessing Magnitude of Change

- 2.25 Criteria for the assessment of magnitude of change is included in paragraphs 4.4.41 through 4.4.49 under Section 4.4 of Chapter 4: Landscape and Visual Amenity (EIAR Volume 2).

Criteria for Assessing Significance

- 2.26 Criteria for the assessment of assessing significance of effects is included in paragraphs 4.4.50 through 4.4.57 under Section 4.4 of Chapter 4: Landscape and Visual Amenity (EIAR Volume 2).

2.27 For the purposes of the assessment effects with a rating of **Moderate** or above are considered to be significant.

Assumptions and Limitations

- 2.28 The LVIA has been subject to the following assumptions and limitations:
- 2.29 The prominence of the Consented Scheme in the landscape would vary according to the prevailing weather conditions. The assessment has been carried out, as is best practice, by assuming the 'worst case' scenario i.e. on a clear, bright day in winter, when neither foreground deciduous foliage nor haze can interfere with the clarity of the view obtained.
- 2.30 The assessment of operational effects assumes that all disturbed areas not required for the operation of the Consented Scheme (laydown areas, temporary construction compounds, excavations for wind turbine foundations and borrow pits) would be successfully reinstated in line with the Outline Habitat Management Plan as outlined in Technical Appendix 9.5 (EIAR Volume 4).
- 2.31 ZTVs are used to inform the landscape and visual assessments. The limitations and technical specifications for production of ZTVs are included in Technical Appendix 4.1 (EIAR Volume 4).
- 2.32 The field assessment of visual effects has been undertaken from public roads, footpaths or open spaces. For residential receptors, assumptions have been made, about the types of rooms and about the types and importance of views from these rooms. For there to be a visual effect, there is the need for a viewer and therefore only buildings that are in use have been considered in the visual assessment.
- 2.33 A number of existing wind farms are operational within the Wider Study Area. It should be noted that the baseline for the assessment considers all existing operational wind farms, as identified on Figure 4.6a (EIAR Volume 3a) but does not include consented, application or scoping sites.

3 Baseline Conditions

Current Baseline

3.1 The baseline for the assessment of the Consented Scheme is the same as that for the Proposed Varied Development and as such it is described under the Section 4.6 in Chapter 4: Landscape and Visual Amenity (EIAR Volume 2).

Future Baseline

3.2 Historically the Detailed Study Area has experienced limited changes in terms of land cover and land use. The more significant adjustments surrounded the change from crofting to sheep farming that took place with the clearances, and the introduction of commercial forest. In more recent years, road improvements have taken place largely associated with commercial forestry operations and wind farm developments. Peatland restoration is also taking place across the Detailed Study Area as part of wider ecological improvement initiatives. Wind farm developments are becoming an increasingly common feature within both the Detailed and Wider Study Areas. Given the available information on wind farm sites in the planning process, it can be assumed that this trend will continue in the future.

Identified Sensitive Receptors

3.3 Chapter 4: Landscape and Visual Amenity (EIAR Volume 2) identified the receptors sensitive to the Proposed Varied Development which were 'scoped-in' to the assessment. This exercise is summarised in Technical Appendix 4.2 (EIAR Volume 4). The following sections identifies those receptors considered as part of the assessment of the Consented Scheme.

LANDSCAPE DESIGNATIONS

3.4 Those areas identified as having the potential to be affected by the Consented Scheme and therefore included in the detailed assessment are listed in Table 4.8.2 below. Areas scoped out of further assessment were considered very unlikely to receive significant effects as a result of the Consented Scheme due to distance from the turbines or limited theoretical visibility. Wild Land Areas were scoped out in line with: previous consultation with SNH' SNH's most recent Scoping Response for the Proposed Varied Development (2019); and the outcome of the PLI, for the Consented Scheme where the Reporter concluded that "the character and qualities of wild land areas would not be adversely affected by the proposed development", all of which confirmed that the Wild Land Areas would not experience significant effects as a result of the development of the Consented Scheme.

	Scoped into the Assessment	Scoped out of the Assessment
National Context		
National Scenic Areas (NSA)	<ul style="list-style-type: none"> • Kyle of Tongue NSA 	<ul style="list-style-type: none"> • North – West Sutherland NSA
Gardens and Design Designed Landscapes (GDL)		<ul style="list-style-type: none"> • Tongue House GDL • Dunbeath Castle GDL
Wild Land Areas (WLA)		<ul style="list-style-type: none"> • WLA 37: Fonaven – Ben Hee • WLA 34: Reay – Cassley • WLA 40: Cape Wrath • WLA 39: East Halladale Flows • WLA 35: Ben Klibreck – Armine Forest • WLA 36: Causeymire – Knockfin Flows • WLA 38: Ben Hope – Ben Loyal
Regional / Local Context		
Special Landscape Areas (SLA)	<ul style="list-style-type: none"> • Farr Bay, Strathy and Portserra SLA • Ben Klibreck and Loch Choire SLA • Bens Griam and Loch nan Clar SLA • The Flow Country and Berriedale Coast SLA • Dunnet Head SLA 	<ul style="list-style-type: none"> • Eriboll East and Whiten Head SLA • Oldshoremore Cape Wrath and Durness SLA • Loch Fleet, Loch Brora and Glen Loth SLA

3.5 Detailed baseline descriptions for those areas which have been scoped into the assessment are included in Annex 2 of this report (EIAR Volume 4: Technical Appendix 4.8).

LANDSCAPE CHARACTER TYPES

3.6 The Landscape Character Types (LCTs) within the Detailed Study Area were reviewed to identify those where there could be potential for significant effects. Of the nine LCTs within the Detailed Study Area six were identified as being potentially sensitive to the Proposed Varied Development and are therefore considered in this assessment of the Consented Scheme. The LCTs identified for inclusion in the assessment were as follows:

- Coastal Crofts and Small Farms LCT (144);
- Lone Mountains LCT (138);

- Rocky Hills and Moorland LCT (136);
- Rounded Hills – Caithness and Sutherland LCT (135);
- Strath – Caithness & Sutherland LCT (142); and
- Sweeping Moorland and Flows LCT (134).

3.7 These LCTs are illustrated on TA Figure 4.8.3 (EIAR Volume 4: Technical Appendix 4.8, Annex 1) and described fully in Annex 2 of this report (EIAR Volume 4, Technical Appendix 4.8).

VIEWPOINTS

3.8 The 14 viewpoints identified for inclusion in the assessment of the Proposed Varied Development are considered in the assessment of the Consented Scheme. These viewpoints are intended to be representative of the views obtained by receptors in the area within which they are located or illustrative of worst-case views from the locality. Details on the selection process for each viewpoint is presented in Technical Appendix 4.2 (EIAR Volume 4). Key information for all 14 viewpoints is provided in Table 4.8.3 below. These viewpoints are illustrated on TA Figure 4.8.4 (EIAR Volume 4, Technical Appendix 4.8, Annex 1) and described fully in Annex 3 of this report (EIAR Volume 4, Technical Appendix 4.8).

LVIA Viewpoint Number	Location	Grid Reference	Receptor Type
VP1	Ben Griam Beg	283185, 941167	SLA / Viewpoint
VP2	Cnoc Riabhach	292003, 937695	WLA 36
VP3	Loch nan Clach Geala	295343, 957116	WLA 39
VP4	East of Melvich	291737, 964451	Route
VP5	Strathy	284158, 965040	Settlement
VP6	Bettyhill Viewpoint	274862, 961925	Route / Viewpoint
VP7	A836 west of the B871 (nr Borgie)	269437, 957272	Route
VP8	Sgor Chaonasaid	257961, 949822	NSA / WLA 38
VP9	Creag na h-Iolaire	267353, 928879	WLA 35
VP10	Beinn Ratha	294954, 960923	WLA 39
VP11	Forsinard (Far North Line)	288982, 942360	Settlement / Route
VP12	A'Mhoine House	251844, 960034	Route / Viewpoint
VP13	A836 near Middleton	305958, 969490	Route
VP14	Dunnet Head	320519, 976504	SLA / Viewpoint

ROUTES

3.9 Receptors on the following routes are included in the visual assessment of the Consented Scheme in line with the assessment of the Proposed Varied Development (see Annex 3 (EIAR Volume 4: Technical Appendix 4.8) for full descriptions):

- A836 - Between Tongue and the eastern edge of Detailed Study Area. (NC500/ Cycle Route 1);
- A836 - From Tongue south to the edge of the Detailed Study Area;
- A897;
- B871 (north);
- B871 (south);
- B873;

- Far North Railway Line;
- Scottish Hill Track 344 – Strath Halladale (Trantlebeg) to Strathy;
- Scottish Hill Track 342 – Crask Inn to Badanloch Lodge;
- Scottish Hill Track 343 – Halkirk to Forsinain or Braemore (Forsinain to Altnabrec section);
- Core Path SU04.02 – Torrisdale – Invernave, Coast Route;
- Core Path SU04.04 – Clachan Burn (Bettyhill to Bettyhill Community Turbines Loop);
- Core Path SU04.05 – Kirtomy – Cnoc Mor Circuit; and
- Core Path SU24.05 – Ben Tongue Circuit.

SETTLEMENTS

3.10 The visual assessment of the Consented Scheme also considers receptors at the following settlements within the 20 km Detailed Study Area in the visual assessment (see Annex 3 (EIAR Volume 4: Technical Appendix 4.8) for full descriptions).

- Strathy (north of the A836 and east of the River Strathy);
- Strathy (south of the A836 and east of the River Strathy);
- Strathy (west of the River Strathy);
- Strathy Point;
- Baligill;
- Brawl;
- Lednagullin;
- Crask / Farr;
- Modsary / Skerray;
- Skelpick; and
- Forsinard.

4 Potential Significant Effects

4.1 This section describes the potential significant effects which could occur as a result of the Consented Scheme.

Potential Construction Effects

4.2 The proposed construction methods and timescale are described in Chapter 2 (EIAR Volume 2). The following construction activities have the potential to result in effects on landscape and visual receptors:

- construction of the turbines and foundations and crane pads;
- construction of new access tracks;
- construction of the on-site Switching Station and associated infrastructure including installation of underground cables; and
- reinstatement works.

4.3 Potential construction effects largely relate to changes to the site itself. These have the potential to result in long term changes to the character and visual amenity of the surrounding area. Other more temporary effects would be managed through good practice construction management (see Technical Appendix 2.1: Outline CEMP (EIAR Volume 4)).

Potential Operational

4.4 The operational life of the Consented Scheme would be 25 years. Potential landscape and visual effects associated with the operation of the Consented Scheme include:

- the wind turbines (39);
- access tracks;
- on-site Switching Station and associated infrastructure; and
- restored temporary construction areas including four borrow pits and laydown areas.

Potential Decommissioning Effects

4.5 Any decommissioning proposals would be developed in consultation with statutory consultees at the time. It is assumed that the focus of these would be to reduce potential effects. As a result, effects arising from the process of decommissioning the Consented Scheme have been scoped out since they would be of a similar nature to construction effects, but of a smaller scale and shorter duration. Where the assessment refers to potential construction effects these are also considered representative of potential decommissioning effects.

5 Mitigation

The design of the Consented Scheme has gone through numerous iterations since this site was first explored for development as a wind farm in 2007. The siting and design of turbines and associated tracks and other infrastructure resulted from a constraints exercise which included consideration of potential impacts from an LVIA perspective. It was also influenced by national and local policy and/or guidance from SNH, THC and SEPA that is referenced where relevant in the EIAR. Further discussions through consultations with SNH, THC and SEPA also informed the final design. Where the national and local guidance documents have been updated during the design iterations, they have been reviewed to ensure that the Consented Scheme still aligns with them. The evolution of the Consented Scheme design is described in Chapter 1: Introduction (EIAR Volume 2).

6 Assessment of Residual Effects

Residual Effects on Landscape Receptors

- 6.1 The extent to which the Consented Scheme would affect the existing landscape varies depending on the individual components of the project and the ability of the existing landscape to accommodate these various components.
- 6.2 This Section provides an assessment of the effects that the Consented Scheme would have on designated landscapes and LCTs during the construction and operational phases in accordance with the methodology outlined in Chapter 4: Landscape and Visual Amenity (EIAR Volume 2).
- 6.3 The character of the landscape relates to the natural processes and human activities that have been at work for a long time to shape the land to its present form. Factors contributing to landscape character include topography, vegetation cover, sense of space or enclosure and past and present land use. Landscape character and resources are considered to have an importance in their own right and are valued for their intrinsic qualities. The aim of the assessment is to determine the potential effect of the Consented Scheme on the landscape character of the area and the elements which contribute to its values and sensitivity.

Effects Likely to be Significant

6.4 The detailed assessment of landscape receptors considered 12 separate landscape receptors. Of these, almost all were identified as likely to have effects which would be not significant. Predicted significant effects were identified for the Bens Griam and Loch nan Clar SLA, Sweeping Moorland and Flows LCT and localised parts of the Lone Mountains LCT. These effects are identified in the

detailed landscape assessment tables (Annex 2 of this report (EIAR Volume 4: Technical Appendix 4.8)) and are summarised as follows.

BENS GRIAM AND LOCH NAN CLAR SLA

- 6.5 The focus of this sweeping moorland landscape is the trio of distinctive hills, Ben Griam Mòr, Ben Griam Beg and Meall a' Bhuirich. The moorland is broken up by montane grassland covered hills with rocky outcrops, areas of scree and watercourses cutting into the slopes and includes a collection of large lochs. The overall sense of this landscape is one of remoteness, wildness, and open space. The presence of coniferous plantations juxtaposes the surrounding area and appears alien in this landscape. The atmosphere of isolation and remoteness is intensified by the fact that the area is almost completely uninhabited. However, recent upgrades to the road network to facilitate timber transportation suggest that the area may not be as disconnected as it first appears. Sensitivity is considered to be **High** due to the relationship between the open moorland and the isolated mountains and the sense of scale this creates.
- 6.6 There would be no direct change to this landscape. The ZTV indicates that intervisibility of the Consented Scheme would be limited to northward views from higher elevations and hill tops. Many of these views are already affected by the operational Bettyhill and / or Strathy North wind farms. However, the increased number of turbines within the landscape and relatively close proximity would likely result in notable change to the landscape context outwith the SLA from localised areas (see TA Figure 4.8.2 (EIAR Volume 4: Technical Appendix 4.8, Annex 1). The detailed assessment concluded the potential magnitude of change to the Special Qualities of this SLA would range from Negligible to Medium. Taking this and the limited intervisibility the overall magnitude of change for the SLA would be considered to be **Medium** during construction and operation.
- 6.7 Effects on this SLA would therefore be localised and indirect, resulting from the appearance of turbines to the north in the surrounding landscape. These would virtually always be seen in the context of existing turbines and therefore not introduce new features into the landscape. They would however likely extend the horizontal spread of turbines and would appear at a closer distance and of a slightly larger scale. While the Consented Scheme would not affect the majority of the SLA and would have a negligible effect on the majority of the Special Qualities of the SLA, it could distract from the appreciation of those qualities focused on its relationship to the wider landscape context. It is therefore considered that the effect significance would be **Moderate** (significant) during construction and operation.

LCT 134 – SWEEPING MOORLAND AND FLOWS (OWESG LCA CT4)

- 6.8 This LCT covers the Consented Scheme site and occurs extensively across Caithness and eastern Sutherland, forming a flat, gently undulating and generally smooth landscape. It forms the setting to the Lone Mountains, the distinctive form and prominence of these mountains being accentuated by the simple, open and expansive nature of the low-lying moorland which surrounds them. Although the area is sparsely settled, it covers a large area and dispersed crofts, farms and estate buildings are present along the edges of the LCT or near straths. These closely relate to the numerous transportation and infrastructure corridors running through this LCT including the Inverness / Thurso Railway, A9, A836, A897 and various transmission lines. Wind farms are also a relatively common feature within the wider LCT.
- 6.9 The presence of existing wind farms particularly within the immediate area reduces the susceptibility to further wind development. Other areas where scenic qualities and wild characteristics are more prominent would be more susceptible to development. Landscape sensitivity is consequently varied throughout the LCT. It is considered to be **Low** where the landscape is characterised by other wind turbines and **Medium** where scenic and wild land characteristics are stronger.

- 6.10 The Consented Scheme would be located entirely within this LCT including turbines, new access tracks, hardstandings, Switching Station, three permanent met masts, and temporary infrastructure and borrow pits during construction. The ZTV indicates that indirect change would be widespread within around 5 km of the turbines of the Consented Scheme. Beyond this, higher ground and facing slopes are more likely to be affected than hollows and glen floors. Much of this area, particularly within 5 km is already affected by the operational Strathy North and Bettyhill wind farms. However, beyond this, particularly to the south and east, the Consented Scheme would appear closer, and in some cases would result in new indirect effects on the LCT within the study area. The magnitude of change would therefore be **Medium-High** during construction and operation.
- 6.11 The Consented Scheme would directly affect a part of the LCT that is currently used for commercial forest, the turbines would be located in an area already indirectly affected by the operational Strathy North wind farm and in some cases the operational Bettyhill wind farm as well. While the Consented Scheme would usually be seen in association with existing wind turbines, it would likely increase the visual presence of turbines by occupying a greater part of the horizon. This could increase perception of the development within the surrounding landscape with some potential to diminish the perceived sense of isolation and remoteness. Where not seen in the context of existing turbines, the theoretical visibility would be largely limited to tips and blades seen over intervening landform.
- 6.12 While the presence of commercial forest and existing wind development could combine to reduce the sensitivity of the area to further development, new turbines and tracks would increase the developed footprint of the immediate area and result in it becoming more strongly characterised by wind turbines. During construction, the increased activity and noise would potentially reduce some of the sense of isolation and remoteness within the immediate area. The predicted landscape effect across the wider LCT would therefore be **Moderate** during construction and operation. During construction this would largely be due to direct effects relating to increased activity levels in the area. During operation the Consented Scheme would form a close new feature which could distract from the key characteristics of the LCT within the immediate area.
- LCT 138 – LONE MOUNTAINS LCT*
- 6.13 The mountains which make up the Lone Mountains LCT lie isolated within expanses of lower-lying open moorland. Their distinctive profiles are visible on the horizon throughout the wider landscape. The mountains are typically located within areas of Sweeping Moorland and Flows and Rocky Hills and Moorland and feature steep and sweeping concave slopes. Some also have complex and narrow radiating ridges and multiple peaks. Their profiles can vary vastly from very steep on one side to gently rising on the other, as exhibited by Ben Hope. Within the wider landscape, Ben Griam Mòr and Ben Griam Beg are relatively small, and isolated, standing out amongst the surrounding Sweeping Moorland and Flow in the interior core of Caithness and Sutherland. The isolation of these largely uninhabited mountains and sparse dwarf vegetation allows their full form to be appreciated and makes them prominent landmark features. Their solitary position also offers extensive panoramic views across the surrounding landscape.
- 6.14 The distinct forms of these Lone Mountains are susceptible to change of the type proposed; therefore, landscape sensitivity is considered to be **High**. The ZTV suggests that intervisibility would be limited to upper slopes facing the Consented Scheme. At their nearest this would comprise all 39 turbines seen to the north of Ben Griam Beg in the context of the operational Strathy North wind farm. While there would be no direct change to this LCT, construction works would likely be evident as small movements in the wider landscape. Within the wider Detailed Study Area, the Consented Scheme turbines would form part of the northern or eastern horizon. They would be seen in addition to the operational Bettyhill and / or Strathy North wind farms, extending the horizontal spread of turbines.

- 6.15 Potential effects on the LCT within the Detailed Study Area would be limited to north and east facing slopes and summits. For most of these areas, turbines are already a feature of the surrounding landscape. Taking into account that the majority of the LCT would be unaffected, it is considered that the overall magnitude of change for the LCT would be **Low-Medium** during construction and operation.
- 6.16 While the Consented Scheme turbines would not represent a new feature in the landscape, they would increase the number of turbines present within the neighbouring landscape and would bring turbines closer to the LCT. This could distract from the appreciation of wider views, particularly to the north coast. Given the limited intervisibility across the wider LCT, landscape effects would generally be considered to be **Minor** (not significant), with localised **Moderate** (significant) effects during both construction and operation.
- Effects Likely to be Not Significant*
- MINOR TO MODERATE LANDSCAPE EFFECTS*
- 6.17 A **Minor to Moderate** (not significant) predicted landscape effect was identified for the Rocky Hills and Moorland LCT (136) and the Rounded Hills – Caithness and Sutherland LCT (135).
- 6.18 Within the Rocky Hills and Moorland LCT (136) predicted effects would be indirect relating to an increased presence of wind turbines within the surrounding landscape context. The effect would vary between smaller numbers of turbines, appearing above the horizon and larger numbers of turbines seen as part of a wider expansive vista from elevated areas in combination with operational turbines. Although there are areas with intervisibility of all thirty-nine turbines, their presence would vary considerably due to the screening provided by the irregular landscape and rocky outcrops. The Consented Scheme could draw focus within some views however, it would be clearly set within a differing landscape area and in the context of existing turbines. It is generally considered that this would not alter the key characteristics of LCT 136 as a whole, large parts of the LCT would remain unaffected and it reflects a situation which already exists within the LCT and neighbouring landscapes.
- 6.19 Predicted indirect effects on the Rounded Hills – Caithness and Sutherland LCT (135) would result from the appearance of the Consented Scheme within the wider landscape context to the north. In most cases these areas are already affected by operational turbines and this would not represent a new addition to the landscape. It would however increase the number of turbines present within this neighbouring landscape, and would bring turbines closer to the LCT, an effect that could distract from the appreciation of wider views. While it could result in a small reduction in scenic quality, it is unlikely to result in changes to the intrinsic landscape character. It is therefore considered that the effect on these LCTs would not be significant.
- MINOR LANDSCAPE EFFECTS*
- 6.20 **Minor** (not significant) effects are anticipated for Farr Bay, Strathy and Portserra SLA, Ben Klibreck and Loch Choire SLA, Coastal Crofts and Farms LCT, the majority of the Lone Mountains LCT, and the Strath – Caithness and Sutherland LCT. With the exception of the Lone Mountains LCT (138), these areas are generally located further from the Consented Scheme and with relatively small areas of shared intervisibility. Within these areas, the Consented Scheme could increase the prominence of wind turbines in the surrounding context. However, given the small areas affected and influence of existing turbines on the landscape, this would not lead to any noticeable reduction to the scenic quality or change to the intrinsic landscape characteristics or special qualities.
- NEGLECTIBLE – MINOR LANDSCAPE EFFECTS*
- 6.21 A Negligible - Minor (not significant) effect was identified for the Flow Country and Berriedale Coast SLA due to the distant and localised nature of effects. The Consented Scheme could be perceptible but would not lead to any discernible change in scenic quality of values.

NEGLIGIBLE LANDSCAPE EFFECTS

6.22 A **Negligible** (not significant) effect was identified for the Kyle of Tongue NSA and Dunnet Head SLA, due to the minimal, distant and localised nature of effects. The Consented Scheme would be unlikely to lead to any discernible change in scenic quality of values.

Summary of Landscape Effects

6.23 Predicted effects on designated and protected landscapes and LCTs are summarised in Table 4.8.4 below. For the purposes of this assessment, effects with a **Moderate** rating or greater are considered to be significant.

	Effect During Construction						Effect During Operation							
	Not Significant			Significant			Not Significant			Significant				
	Negligible	Negligible - Minor	Minor	Minor - Moderate	Moderate	Moderate - Major	Major	Negligible	Negligible - Minor	Minor	Minor - Moderate	Moderate	Moderate - Major	Major
Kyle of Tongue NSA	x							x						
Farr Bay, Strathy and Portskerra SLA			x							x				
Ben Klibreck and Loch Choire SLA			x							x				
Bens Griam and Loch nan Clar SLA					x							x		
Flow Country and Berriedale Coast SLA		x							x					
Dunnet Head SLA	x							x						
Coastal Crofts and Small Farms LCT (144)			x							x				
Lone Mountains LCT (138)			x		(L)					x		(L)		
Rocky Hills and Moorland LCT (136)				x							x			
Rounded Hills –				x							x			

Caithness and Sutherland LCT (135)														
Strath – Caithness and Sutherland LCT (142)			x								x			
Sweeping Moorland and Flows LCT (134)					x								x	

(L) – Denotes that the effect would be localised to only part of the landscape receptor within the Detailed Study Area.

Residual Effects on Visual Amenity

6.24 This section discusses the findings of the detailed visual assessment undertaken for the Consented Scheme. It describes and evaluates the likely change in existing views obtained from residential properties, places of work, routes, popular destinations and strategic vantage points during the construction and operational phases of the Consented Scheme, and the extent to which these would affect residents, visitors and users of the landscape.

6.25 Visual amenity relates to the way in which people visually experience their surroundings. Adverse visual effects may occur through the intrusion into established views of new features, out of keeping with the existing structure, scale and composition of the view obtained by the viewer. However, visual effects may also be beneficial where an attractive focus is created in a previously unremarkable view or the influence of previously detracting features is reduced. The significance of effects will vary, depending on the nature and degree of change experienced and the perceived value and composition of the existing view obtained by the viewer.

6.26 For the purposes of this assessment significant effects are those considered to be **Moderate** or greater. Individual receptor references relate to those indicated on TA Figure 4.8.1 and TA Figure 4.8.4 (EIAR Volume 4: Technical Appendix 4.8, Annex 1) and/or described in Annex 3 (EIAR Volume 4: Technical Appendix 4.8). Annex 3 (EIAR Volume 4: Technical Appendix 4.8) provides further detailed information on each receptor and the nature of the predicted effects.

Effects Likely to be Significant

6.27 Of the 14 representative VPs, 11 settlements and residential groupings, and 14 routes selected for inclusion within the visual assessment, the majority were identified as likely to have no significant effect to the view obtained. Residual significant effects were identified to four visual receptors. These receptors were:

- VP1: Ben Griam Beg;
- VP6: Bettyhill Viewpoint;
- VP7: A836 west of B871, and
- Scottish Hill Track 344: Strath Halladale (Trantlebeg) to Strathy.

VP1: BEN GRIAM BEG

6.28 This VP is located on the summit of Ben Griam Beg to the south of the site. It is representative of elevated nearby and middle distance views that can be obtained from this direction. It has 360° panoramic views across the landscape. Ben Griam Mòr and Meall a' Bhuirich are prominent in

views to the south while views to the north extend to the North Sea with the operational Strathy North wind farm appearing in the midground. To the south and west the skyline is defined by distinctive mountain ranges. The surrounding lower lying moorland is broken up by lochs and lochans, and large patches of commercial forestry. Small tracks and roads are also visible at lower elevations. Sensitivity is considered to be **High** due to the relationship between the isolated mountains and the surrounding open moorland and the sense of scale this creates in views.

- 6.29 The Consented Scheme turbines would be prominently seen in views obtained to the north. Although they would increase the horizontal spread of turbines, this view is already affected by unobstructed views of the operational Bettyhill and / or Strathy North wind farms and as such, the Consented Scheme would not introduce new features in the view. However, the increased number of turbines within the view and proximity would likely result in noticeable change to the existing view obtained. A **High** magnitude of change would lead to a **Major** (significant) visual effect during construction and operation.

VP6: BETTYHILL VIEWPOINT

- 6.30 This VP is located at the marked Bettyhill viewpoint and car park on the A836 (NC500) to the south of Kirtomy. It is representative of sections of this road where the proposal would be visible to the northwest of the site and is a popular stopping point. The main view obtained from here is directed towards the southeast and Loch Meadie. Ben Hope and Ben Loyal are visible in distant views to the west beyond the operational Bettyhill wind farm. Rocky moorland and rolling hills restrict more distant views in other directions. Sensitivity of this viewpoint is considered to be slightly reduced to **Medium** because of the influence of existing turbines in close proximity, and the relatively busy road.

- 6.31 Blades and hubs of the Consented Scheme would be visible and noticeable to the southeast over the ridge and against the skyline which would result in a **Medium** magnitude of change. As these would be seen in the context of the operational Bettyhill wind farm to the west this would lead to a **Moderate** (significant) visual effect during construction and operation.

VP7: A836 WEST OF THE B871

- 6.32 This VP is found on the A836 to the northwest of the Consented Scheme. It is representative of middle distance, worst-case scenario views obtained from this stretch of the A-road and NC500, particularly as travellers descend into Strathnaver from the west. The main views from this viewpoint are along the A836 towards the east and west. Views to the north and south are restricted by rolling moorland covered in low level vegetation. While longer distance views are largely restricted by the intervening topography, some rolling hills can be seen in the distance, particularly to the south and east. Sensitivity of the viewpoint is considered to be **Medium**.

- 6.33 The Consented Scheme would be visible and noticeable in the distance to the southeast over the ridge and against the skyline which would result in a **Medium** magnitude of change. As these would be seen from a relatively busy and fast moving route, in only one direction of travel, this would lead to a **Moderate** (significant) visual effect during construction and operation.

SCOTTISH HILL TRACK 344: STRATH HALLADALE (TRANTLEBEG) TO STRATHY

- 6.34 This route passes through a very changeable landscape. Large parts of the surrounding coniferous planting have been felled, opening up views to the surrounding 'Flow Country' moorland and bog as part of nature conservation efforts. The Bens Griam dominate views obtained from the southern portion of the route. Strathy North wind farm is prominent in views obtained along much of the route, particularly the northern section that passes very close to it. Visual sensitivity of the route is therefore considered to be **Medium**.

- 6.35 While operational turbines are already a feature along this route, the Consented Scheme would be very prominent along the middle part of this route as it passes directly through the site. This would be even more so during construction when parts of the route would be used to provide access to

the site. Construction works and working areas would be adjacent to and distracting for walkers or cyclists. It is anticipated that this would lead to a **High** magnitude of change during construction and a **Major** (significant) visual effect largely due to construction associated activities and traffic.

- 6.36 During operation, whilst the Consented Scheme turbines would appear prominent, they would affect areas where the Strathy North wind farm is already prominent. Given the viewing expectation of those using this route adjacent to an existing operational wind farm, it is anticipated that this would lead to a **Medium-High** magnitude of change and **Moderate** (significant) visual effect during operation.

Effects Likely to be Not Significant

MINOR - MODERATE

- 6.37 A **Minor - Moderate** (not significant) effect during construction and operation was identified for one of the VPs (see Table 4.8.5 below for details). While it is recognised that the Consented Scheme would be a noticeable new addition to the view, it would not be very prominent and would not appear out of place within the existing context. These effects would therefore be considered to be not significant.

MINOR

- 6.38 A **Minor** (not significant) effect during construction and operation was identified for five of the VPs, three of the settlements and residential groupings, four of the routes, and localised parts of three other route included in the assessment (see Table 4.8.5 below for details). From these receptors, visibility would often be intermittent and / or distant and turbines would often be seen as blades and tips over intervening landform. The Consented Scheme would comprise either a new and perceptible feature within a small part of the wider context or a small additional feature where existing turbines or other infrastructure are more prominent. This would lead to a minimal reduction in the quality of the view experienced from the receptors and therefore the effect would be not significant.

NEGLECTIBLE - MINOR EFFECTS

- 6.39 Effects on two viewpoints, four routes and one residential grouping would be **Negligible - Minor** (not significant) largely due to the screening provided by intervening landform or mature vegetation, distance and presence of operational turbines in views. It was considered that while the addition of the Consented Scheme could be perceptible, it would not lead to any discernible increase in the dominance of wind turbines from the receptors.

NEGLECTIBLE

- 6.40 It is considered that the effects on the visual amenity of all other receptors not discussed would be **Negligible**. From these receptors it is anticipated that the Consented Scheme would:

- not lead to any perceptible reduction in the quality of the views obtained,
- be likely to be barely perceptible from a settlement or residential grouping,
- be barely perceptible or perceptible only from a short section of a route that is unlikely to lead to any reduction in the visual amenity value of the route.

Summary of Effects on Visual Amenity

- 6.41 Predicted effects to visual receptors are summarised in Table 4.8.5. For the purposes of this assessment, effects with a **Moderate** rating or greater are considered to be significant. This includes three of the 14 VPs and one route which passes through the site, as indicated below.

Table 4.8.5: Summary of Effects on Visual Amenity														
Receptor	Effect During Construction						Effect During Operation							
	Not Significant			Significant			Not Significant			Significant				
	Negligible	Negligible - Minor	Minor	Minor - Moderate	Moderate	Moderate - Major	Major	Negligible	Negligible - Minor	Minor	Minor - Moderate	Moderate	Moderate - Major	Major
Viewpoint														
VP1: Ben Griam Beg							x							x
VP2: Cnoc Riabhach			x							x				
VP3: Loch nan Clach Geala				x							x			
VP4: East of Melvich			x							x				
VP5: Strathy		x							x					
VP6: Bettyhill Viewpoint					x							x		
VP7: A836 west of the B871					x							x		
VP8: Sgor Chaonasaid			x							x				
VP9: Creag na h-lolaire			x							x				
VP10: Beinn Ratha			x							x				
VP11: Forsinard		x								x				
VP12: Moine House	x									x				
VP13: A836 near Middleton	x									x				
VP14: Dunnet Head	x									x				
Routes														
A836 (Tongue – eastern edge of detailed study area) (NC500/ Cycle Route 1)	x		(L)							x		(L)		
A836 Tongue to detailed study area	x		(L)							x		(L)		
A897	x		(L)							x		(L)		
B871 (North)	x									x				

Table 4.8.5: Summary of Effects on Visual Amenity														
Receptor	Effect During Construction						Effect During Operation							
	Not Significant			Significant			Not Significant			Significant				
	Negligible	Negligible - Minor	Minor	Minor - Moderate	Moderate	Moderate - Major	Major	Negligible	Negligible - Minor	Minor	Minor - Moderate	Moderate	Moderate - Major	Major
B871 (South)		x											x	
B873		x											x	
Far North Railway		x											x	
Scottish Hill Track 344: Strath Halladale (Trantlebeg) to Strathy												x		x
Scottish Hill Track 342 – Crask Inn to Badanloch Lodge	x												x	
Scottish Hill Track 343 Halkirk to Forsinain or Braemore														x
Core Path SU04.02 – Torrisdale – Invernaver, Coast Route	x												x	
Core Path SU04.04 – Clachan Burn (Bettyhill to Bettyhill Community Turbines Loop)														x
Core Path SU04.05 – Kirtomy – Cnoc Mor circuit														x
Core Path SU24.05 – Ben Tongue Circuit														x
Settlement														
Strathy (North of the A836 and east of the River Strathy)														x
Strathy (South of the A836 and East of the River Strathy)														x
Strathy (West of the River Strathy)	x												x	
Strathy Point														x
Baligill														x
Brawl	x													x
Lednagullin														x
Crask / Farr														x
Modsary / Skerray	x													x

Skelpick		x							x				
Forsinard	x							x					
(L) – Denotes that the effect would be localised to only part of the landscape receptor within the Detailed Study Area.													

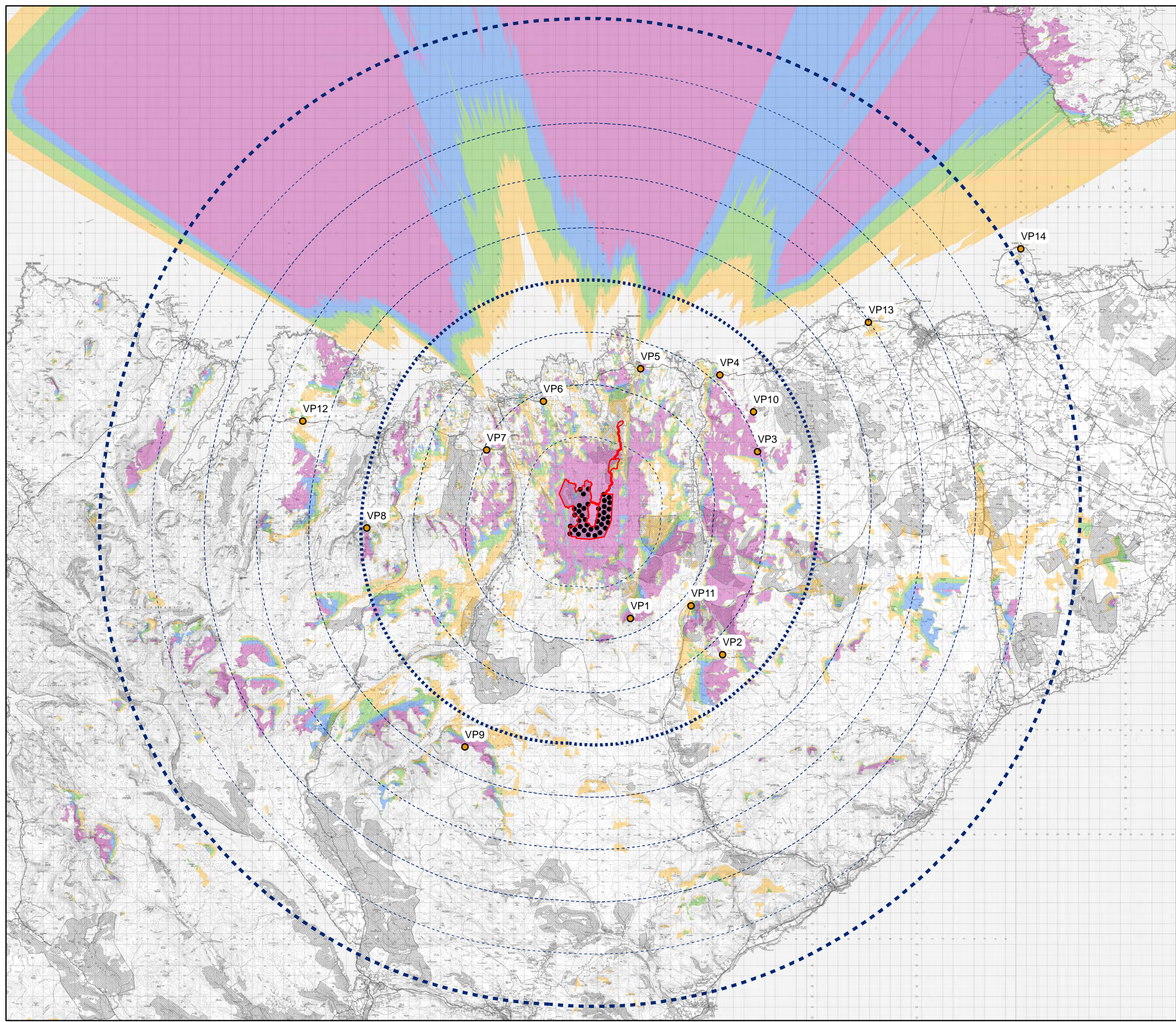
7 Summary and Conclusions

7.1 The assessment of the predicted effects of the Consented Scheme on landscape receptors considered 12 separate receptors. Of these almost all were identified as likely to have effects which would be not significant. Predicted significant effects were identified for the Bens Griam and Loch nan Clar SLA, Sweeping Moorland and Flows LCT and localised parts of the Lone Mountains LCT. These effects are identified in the detailed landscape assessment tables (Annex 2 of this report (EIAR Volume 4: Technical Appendix 4.8)) and are summarised in Section 6 above.

7.2 Of the 14 representative VPs, 11 settlements and residential groupings, and 14 routes selected for inclusion within the visual assessment of the Consented Scheme, the majority were identified as likely to have no significant effect to the view. Predicted significant effects were identified for VP1: Ben Griam Beg, VP6: Bettyhill Viewpoint; VP7: A836 west of B871, and Scottish Hill Track 344: Strath Halladale (Trantlebeg) to Strathy. These effects are detailed in Section 6 above.

While the Consented Scheme would result in some significant effects, these would be largely confined to a few particular areas as represented by the overlap of the above receptors (see TA Figures 4.8.1 – 4.8.4 (EIAR Volume 4: Technical Appendix 4.8, Annex 1). The Consented Scheme would not result in significant effects on any nationally designated landscape or settlement. Therefore, the limited overall effects of the Consented Scheme demonstrate that the site is uniquely positioned to accommodate wind development without resulting in significant effects.

ANNEX 1: TECHNICAL APPENDIX 4.8 FIGURES



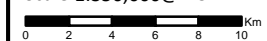
Key

- Site Boundary
- Turbine
- Viewpoint (VP)
- 45 km Wider Study Area
- 20 km Detailed Study Area
- 5 km Distance Radii

Consented Scheme (135 m to tip)
 Zone of Theoretical Visibility (ZTV):
 Number of Turbines Theoretically Visible

- 1 - 10
- 11 - 20
- 21 - 30
- 31 - 39

Scale 1:350,000@ A3



TA Figure 4.8.1
Wider Study Area and Consented
Scheme Zone of Theoretical Visibility

Strathy South Wind Farm
EIAR 2020