Howpark Solar Farm

Landscape and Visual Appraisal

Eurowind Energy Limited

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Basis of Report

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1.0 Introduction

SLR Consulting Ltd (SLR) has been instructed by Eurowind Energy Limited (the Client and hereafter referred to as Eurowind) to undertake a Landscape and Visual Appraisal (LVA) for a proposed new Solar Farm development adjacent to the Howpark Wind Farm near Grantshouse in the Scottish Borders.

The proposed development comprises a solar photovoltaic (PV) generating station and ancillary infrastructure which would share the grid connection already established for the adjacent Howpark Wind Farm. The main elements of the proposed development (as shown on Figure 2 of the Planning Application Figures) are anticipated to be:

- up to 25,000 tracking solar PV panels/modules set out in rows (known as strings) and ground mounted up to 4.5m above ground level (agl) (at their most vertical) during minimal parts of the day;
- inverters placed at the end of the solar PV strings as required;
- string combiner boxes to combine multiple strings of PV panels;
- two transformer stations to the north of the solar array;
- underground and cable tray cabling to connect the panels, inverters and transformers to the consented and built Howpark Wind Farm substation in the north of the Site;
- reuse of existing substation compound infrastructure;
- compacted internal crushed stone tracks, rolled in layers to allow vehicular access between fields;
- fencing, security and monitoring CCTV cameras located along the perimeter of the Site;
- use of consented wind farm Site access tracks either via the adopted A1 or via the adopted Howpark Road;
- use of former wind farm construction compound footprint north of the Site for temporary construction compound; and
- landscaping/planting (refer to Appendix 06) in order to provide screening.

A Landscape Strategy is provided in Appendix 06 showing proposed landscape structure planting, planting of hedgerows with hedgerow trees in order to provide screening and habitat improvements including retention and enhancement of woodland belts in and around the Site. Native screen woodland, hedge and hedgerow tree planting is proposed around the solar arrays to augment the field pattern. Enhancement of the ecotone to the existing coniferous woodland in the centre of the Site is also proposed. This would reduce the potential visibility of the proposed development and help to integrate it within the local landscape. The Landscape Strategy is considered an integral part of the proposed development.

This report comprises a concise landscape and visual appraisal to evaluate the characteristics of the proposed development and the implications these are predicted have in relation to landscape and visual receptors.

1.1 Methodology

This assessment has been carried out by an experienced landscape architect in accordance with the Guidelines for Landscape and Visual Impact Assessment (3rd Edition, 2013, also known as GLVIA3, produced by the Landscape Institute and Institute of Environmental Management and Assessment). The full methodology is provided in Appendix A.

Judgements have been discussed and agreed with other experienced landscape architects in accordance with best practice.

The assessment is based upon a desktop assessment of relevant plans, guidance and character assessments, as well as a Site assessment carried out in August 2023.

Landscape, as defined in the European Landscape Convention, is *"an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors"*, (Council of Europe, 2000). The term landscape includes (GLVIA3, paragraph 2.5):

- *"All types of rural landscape, from high mountains and wild countryside to urban fringe farmland (rural landscapes);*
- *Marine and coastal landscapes (seascapes);*
- *The landscapes of villages, towns and cities (townscapes)"*.

Visual effects are the effects of change and development on the views available to people and their visual amenity. Visual receptors are the people whose views may be affected by the proposed development.

The proposals comprise non-EIA development, as confirmed by Scottish Borders Council (SBC) in their EIA Screening Opinion (ref 23/00315/SCR) on 14 March 2023. Therefore, this report comprises a landscape and visual appraisal rather than a landscape and visual impact assessment (LVIA).

1.2 Study Area

The study area is illustrated on Figure L-01. This was initially defined through desk top analysis of plans and aerial photographs and was refined by field survey. A 5km landscape study area was proposed in the EIA Screening Report based on the core pattern of visibility that adverse effects would be unlikely beyond this study area. Beyond 5km the proposed development is unlikely to be perceived due to distance from the proposed development and the limited extent of change predicted. No specific comments on the study area were made by SBC in their Screening Response. Further consultation was undertaken with SBC to agree on the number of viewpoints required within this study area in August 2023.

2.0 Planning Context

2.1 National Policy: National Planning Framework 4 (NPF4)

Table 2-1 includes the national policies which are particularly relevant to the LVA.

Table 2-1: Key National Planning Policies Relevant to the LVA

Policy Document	Relevant Policy	Description	Response
National Planning Framework 4 (NPF4) (Scottish Government, February 2023)	4 – Natural Places	This Policy sets out principles for protecting locally, regionally, nationally and internationally important natural assets, both on land and along coasts. It states "Development proposals which by virtue of type, location or scale will have an unacceptable impact on the natural environment, will not be supported". It includes specific provisions for the protection of National Parks and	The Site is not located with a National Park or National Scenic Area or Special Landscape Area. Landscape designations within the study area and potential effects on these are assessed within this appraisal. Potential landscape and visual effects resulting from the Proposed Development are considered throughout this appraisal.

Policy Document	Relevant Policy	Description	Response
		National Scenic Areas, establishing the need to protect the objectives of designation and the overall integrity of the areas. Policy 4 also sets out that development proposals that affect a designated landscape areas in the LDP will only be supported where such development would not have significant adverse effects on the integrity of that area or the qualities for which it has been identified. Also, any significant effects should be outweighed by the benefits of the Proposed Development. In relation to NatureScot Wild Land Areas (WLA), NPF4 states that development proposals *"will only be supported where the proposal….will support meeting renewable energy targets [inter alia]"*. It goes on to identify that such proposals should be supported by a wild land impact assessment. However, it also states that *"buffer zones around wild land will not be applied, and effects of development outwith wild land areas will not be a significant consideration"*.	The Site is not located within a NatureScot WLA.
	6 – Forestry, Woodland and Trees	Policy 6 seeks to protect and expand forest, woodland and trees. It sets out that development proposals that enhance, expand and improve woodland and tree cover would be supported. It also sets out that development proposals that result in a loss of, or reduction in the condition of woodland and trees would not be supported. It places an emphasis on the protection of ancient woodlands, ancient and veteran trees, together with native woodlands, trees and hedgerows. Part c states that *"development proposals involving woodland removal will only be supported where they will achieve significant and clearly defined additional public benefits"*.	No tree felling or hedge loss is proposed as part of the proposed development. New areas of native woodland, scrub and hedge and hedgerow tree planting is proposed. It is proposed to create areas of improved habitat. This is described in Appendix 04: Ecological Impact Assessment. This habitat enhancement would complement local landscape character, restoring the landscape in a way that would be consistent with the adjacent farmland and also provide mitigation in terms of visual effects.
	11 – Energy	Policy 11 seeks to encourage and support development proposals for all forms of renewable, low carbon and zero emissions technologies. Wind farms are specifically covered	The Site is not located with a National Park or National Scenic Area. Landscape designations within the wider study area and potential effects on these are

Policy Document	Relevant Policy	Description	Response
		by this policy, including repowering, extending, expanding and extending the life of existing wind farms. It also sets out that development proposals for wind farms in National Parks and National Scenic Areas will not be supported. Part e of this Policy include criteria linked with project design, mitigation and potential impacts. These include reference to impacts on communities and individual dwellings, residential amenity and visual impact. It also identifies the potential for significant landscape and visual impacts, recognising that such impacts are to be expected from some forms of renewable energy, stating that *"where impacts are localised and/or appropriate design mitigation has been applied, they will generally be considered to be acceptable"*. Part iii specifically relates to potential impacts on public access, including long distance walking, cycling and scenic routes. Part xiii makes reference to potential cumulative impacts. Part f of Policy 11 identifies that consents for development proposals may be time limited. However, it also identifies that areas identified for wind farms are expected to be suitable for use in perpetuity.	assessed within this appendix. Potential landscape and visual effects resulting from the proposed development are considered throughout this appraisal. **Section 3: Aspects of the Development which have the Potential to Cause Landscape and Visual Effects** describes the approach taken to consider the siting and design of the proposed development.

2.2 The Scottish Borders Local Development Plan (2016)

The LDP is over five years old and is currently under review, a Proposed LDP was presented to the Council in September 2020. A Proposed LDP is currently in the process of preparation and a Report of Examination was published on 7 July 2023 by the Scottish Government's Planning and Environmental Appeals Division (DPEA) proposing a number of amendments. A report was presented to Council on 28 September 2023 which presented modifications arising from the Examination Report. Council agreement is being sought for the proposed modifications and, therefore, to take the Plan as amended forward to formal adoption. At time of writing the new LDP was not adopted and, therefore, the LDP 2016 is considered to be most relevant. Reference to polices where changes are intended to be made from the LDP 2016 are noted on the SBC website. Where known comments on these are included below.

The policies from the adopted LDP relevant to the consideration of the proposed development in relation to landscape and visual amenity include:

- PMD1 Sustainability (policy substantially retained in proposed LDP);

- PMD2 Quality Standards (policy retained in proposed LDP with additional reference to SBC's Supplementary Guidance on Renewable Energy and Sustainable Development Committee);
- ED9 Renewable Energy Development (policy substantially retained in proposed LDP);
- HD3 Protection of Residential Amenity (policy retained in proposed LDP with introductory text updated to confirm that this policy is relevant to the consideration of applications for renewable energy developments. Cross reference added to Policy ED9 Renewable Energy Development);
- EP3 Local Biodiversity (policy retained in proposed LDP but now includes reference to Local Nature Conservation Sites);
- EP5 Special Landscape Areas (policy substantially retained in proposed LDP);
- EP8 Archaeology (policy substantially retained in proposed LDP with policy title and introductory text amended to reflect the wider aspects of the historic environment);
- EP13 Trees, Woodlands & Hedgerows (policy substantially retained in proposed LDP including reference to the Regional Strategic Woodland Creation Project);
- EP15 Development Affecting the Water Environment (policy substantially retained in proposed LDP); and
- IS5 Protection of Access Routes (policy substantially retained in proposed LDP).

2.2.1 Supplementary Guidance

Supplementary Guidance forms part of the adopted Local Development Plan. The relevant Supplementary Guidance pertaining to the proposed development is the 'Renewable Energy' Supplementary Guidance (July 2018) (SG) which gives further advice and guidance relating to LDP Policy ED9 – 'Renewable Energy Developments'. It covers a wide range of renewable energy types, whilst also taking cognisance of economic and other benefits a proposal may offer. Regarding siting and development of field scale solar photovoltaics in the Scottish Borders, the supplementary guidance relevant to landscape and visual includes:

- *"Consideration to be given to inherent characteristics of landscape to absorb panels. Solar PV development should be located on flat landforms or on lower slopes/within folds in gently undulating lowland landscapes rather than on prominent upland landforms, highly visible slopes, or coastal headlands;*
- *consideration to be given to impacts on sensitive receptors e.g. residencies, public roads, tourist routes, long distance footpaths and other Rights of Ways;*
- *developments should preferably be in landscapes where screening is already provided by woodland, hedgebanks or high hedges. Screen planting may be necessary to ensure the solar panels and associated infrastructure are screened from view;*
- *avoid siting PV developments across multiple fields in areas with a small scale irregular field pattern that is important to landscape character;*
- *avoid adversely affecting areas of semi-natural habitat, and designated historic and archaeological sites directly or indirectly;*
- *proposals should not affect the character or setting of the built heritage;*
- *ensure that any PV developments do not detract from prominent landmarks. Avoid locating solar PV developments where they could be directly overlooked at close quarters from important or sensitive viewpoints; and*

- *consideration to be given to any potential impacts regarding the detailed design of any required deer/securing fencing.*

Within the context of this policy the proposed development is located around the local summit of Bell Hill 232m AOD. Within the wider landscape this is not a dominant landform, with other local summits being of a similar height or higher. (e.g. Dalks Law, Horsely Hill, Blackburn and Meikle Law). The Site is contained within undulating pasture contained by existing woodland around Bell Hill to the centre of the Site and woodland between the proposed development and the existing Howpark Wind Farm to the north. Any skyline views would follow the existing contours and any extension in the vertical extent of the view would be contained by existing and proposed woodland. The proposed development consists of two areas of solar panels respecting the existing field pattern. There would be a small change to the existing field pattern to the north of the Site area towards the culverted Howpark Burn. This would be a small change to the field pattern and proposed augmented field boundaries and woodland shelter belts would maintain and enhance the overall field pattern.

2.3 Designations

The Site is not within any designations for valued landscapes, such as National Scenic Areas (NSAs) and National Parks at a national level or Special Landscape Areas (SLAs) at a local authority level. The key receptors in the local context of the Site relate to walking and cycling routes (designated promoted routes). There is one SLA within the 5km study area: the Berwickshire Coast SLA is located to the north of the Site at a distance of approximately 1km from the red line boundary. A Zone of Theoretical Visibility (ZTV) has been calculated for the proposed development, from a 2m standing view, with an indicative infrastructure elevation of up to 4.5m (maximum panel height during certain minimal periods of the day). Figure L-01 provides a bare earth ZTV and Figures L-02 and L-03 a ZTV which take account of the potential screening influences of surface features, such as areas of woodland. The ZTVs and Figure L-04 A indicate low visibility from limited areas within the Berwickshire Coast SLA likely to be screened by local features within the landscape and so is excluded from this assessment. The Lammermuir Hills SLA is located to the east beyond the 5km study area. Recreational routes related designations in the locality are summarised below and are illustrated on Figure L-04:

- Nationally promoted recreational routes within the 5km study area comprise:
    - the Southern Upland Way (also the Sir Walter Scott Way, Scottish Hill Track no. 31 Cockburnspath to Duns and Core Path No. 189) lies to the west at distances between approx. 3-5km;
    - the Berwickshire Coastal Path (also largely follows the route of Core Path No. 2) lies to the north within the 5km study area.
    - National Cycle Route 76 (overlaps with the A1107) but does not overlap the ZTV within the study area. The ZTVs overlap a short section of the route beyond the 5km study area but is scoped out of this appraisal due to distance from the proposed development unlikely to be perceived due to distance and the limited extent of change predicted.
- Core Path Network and other local Recreational Routes within 5km include:
    - Heritage Paths:
        1. The Moss Road (also Right of Way) lies approximately 3km to the north east but only a very limited? section to the north of North Falaknowe overlaps the ZTV in an area of low visibility;

2. Laird's Road (also Core Path 100) lies approximately 2.5km to the west and overlaps the ZTV between Harelawside to the south and Andrew's cairn to the north; and
3. Thief's Road (which mostly overlaps with a Right of Way) lies approximately 4km to the south around Horsely Hill and Warlawbank.

- Rights of Way:
  - Right of Way between Moorhouse and Howpark Road running through Drone Hill Wind Farm lies approximately 100m to the north of the red line boundary adjacent to Howpark Wind Farm;
  - Right of Way between Huxton and Houndwood lies approximately 1km to the east;
  - Right of Way between Bowshiel and Blackburn lies approximately 4.5km to the west; and
  - Right of Way between A6112 and the promoted path to Blackburn lies approximately 4km to the south west.

- One tourist specific visual receptor lies within the study area as follows:
  - High View Caravan Park, which lies to the east of the Site, adjacent to the Site boundary.

    This is described as a 365 day/year holiday home Caravan Park and for the purposes of this study has been assessed as a residential visual receptor.
- Several listed buildings are located in the vicinity of the Site, including Howpark Farmhouse including walled garden (Category C) to the west, Renton House including pavilions, sundial, quadrant walls and boundary walls (Category A - views from upper floors only), Renton House Walled Garden (Category C) to the south; and Harelawside Farmhouse (category C) to the west.

2.4 Summary of Planning Context

The Site is not within any designations for valued landscapes at a national or local level. Trees, Woodlands and Hedgerows are retained as they are not affected by the design. The proposed development is located and designed so as not to detract from prominent landmarks, sensitive viewpoints, and avoids direct effects on National or local designated recreational routes.

3.0 Aspects of the Development which have the Potential to Cause Landscape and Visual Effects

3.1 Location

The Site is currently used as pastoral and arable farmland. Three of the four fields within the Site are currently used for grazing and the other is used for growing crops (primarily sugar beet).

The landscape in which the application Site lies is influenced by an existing group of wind farms comprising Howpark, Drone Hill and Penmanshiel Wind Farms.

3.2 Height and Density

The components of the proposed development above ground comprise the following:

- tracking solar PV panels set out in rows (known as strings) and ground mounted - at minimal parts of the day (depending on where the sun is positioned) may reach up to 4.5m above ground level, at their most vertical. Normal operating height would be in the range of 3m-3.5m above ground level for the majority of the day. For the purposes of this appraisal the ZTVs has modelled the worse-case scenario when the panels are at their full height of approximately 4.5m above ground level. There would be gaps of approximately 3-6m between each row depending on topography;
- two transformer stations - dimensions approximately 6m x 2.9m x 2.4m, located to the north of the larger solar array;
- inverters to combine multiple strings of PV panels – dimensions approximately 1m x 0.7m x 0.4m;
- compacted internal crushed stone tracks, rolled in layers to allow vehicular access between fields – typically 4m wide;
- security and monitoring CCTV cameras x 9 no. located along the perimeter of the Site – 3m height;
- stock proof fencing 1m high is proposed around all new planting areas;
- 2m high security fencing is proposed around the solar arrays;
- use of consented wind farm site access tracks either via the adopted A1 or via the adopted Howpark Road; and
- landscaping / planting of hedgerows in order to provide screening.

3.3 Proposed Landscape and Biodiversity Strategy

No trees or hedges would be removed as a result of the proposed development, including: along the cable corridor, within the proposed solar array, or along the access route. Therefore, the potential effects on landscape and visual receptors as a result of these components of the proposed development would be very limited.

It is proposed that approximately 390m of new native hedgerow and hedgerow tree planting will be provided within the Site boundary as indicated on Figure 6.1 (Appendix 06) in order to maintain the function of field boundary enclosure and to preserve and enhance the underlying landscape character and visual appearance of the Coastal Farmland LCA in accordance with the guidelines set out in the Borders Landscape Assessment, 1998.

In addition, an area approximately 1.76ha of native woodland tree and scrub planting is proposed to create new areas of woodland linking areas of existing woodland and shelterbelt. A total of 0.4 hectares of ecotone edge to the existing coniferous plantation in the centre of the Site would also be created. This is designed to enhance the green infrastructure across the Site and maintain and enhance the underlying landscape character and visual appearance of the Coastal Farmland LCA in accordance with the guidelines set out in the Borders Landscape Assessment, 1998.

It is likely that as the proposed hedgerow and tree planting becomes established (within 5 years) this will provide some further visual screening of the Proposed Development from areas such as Howpark Road and residential receptors to the west at Renton Barns.

Refer to Appendix 04: Ecological Impact Assessment for details of proposed species and outline specification.

3.4 Lighting

No permanent visible lighting would be included within the proposed development, only for infrequent operational maintenance where required at certain times of the year. A lighting

assessment is not applicable to a development of this nature and the baseline levels of light would remain the same.

4.0 Potential Landscape Effects of Development

4.1 Introduction

The following landscape appraisal is based upon both a desk top assessment of existing character assessments and plans as well as a Site-based survey. In accordance with GLVIA3 the main landscape receptors, (individual landscape elements, aesthetic characteristics, overall character), which have the potential to be affected by the proposed development have been identified and their sensitivity to the proposed development has been assessed by considering their value and susceptibility. The magnitude of change which would be experienced by each of these receptors has then been assessed by determining the size and scale of change, the geographical extent of that change, and the duration and reversibility of that change.

By combining the sensitivity of receptors and the magnitude of effect the potential for landscape effects has been assessed.

4.2 Existing Landscape Character Assessments

There are a series of existing character assessments which provide a useful context to the baseline landscape character of the Site. Figure L-05 summarises the classification provided by NatureScot Landscape Character Types (LCT) (SNH, 2019).

Taking these LCTs as a starting point, the LVA focuses on the key landscape characteristics that are relevant to the proposed development and upon which there are most likely to be landscape effects. To inform this process, Figure L-05 A (ZTV with Landscape Character Types) shows an overlay of the ZTV and map of LCTs.

Further details are set out below. The landscape character of the Site is classified within ‘The Borders Landscape Character Assessment’ (ASH Consulting Group 1998). Further landscape classification of the wider 5km study area is provided in ‘An Assessment of the Sensitivity and Capacity of the Scottish Seascape in Relation to Windfarms’ (SNH commissioned Report no. 103 – 2005).

The landscape receptors included in this appraisal include the landscape character units and landscape planning designations such as Areas of Great Landscape Value (AGLV) and Special Landscape Areas (SLA).

The host landscape character area for the proposed Howpark Solar Farm is characterised by the Coastal Farmland – Borders LCT no. 110 within which all the proposed solar panels would be located. There are 2 proposed access routes utilising existing wind farm routes. The proposed access route from the A1 lies within LCT no.117 the Pastoral Upland Fringe Valley. The proposed access from Howpark Road lies within the Coastal Farmland – Borders LCT no. 110.

The landscape character areas within 5km study area are illustrated on Figure L-05 and Figure L-06. Each of these are listed as follows with the relevant Landscape Character Assessment report reference number in brackets:

- Platform Farmland: Borders (100);
- Coastal Farmland: Borders (110);
- Coastal Moorland: Borders (112);
- Pastoral Upland fringe Valley (117);

- Rolling Lowland Margin (107); and
- Wooded Upland Fringe Valley (excluded as it only negligibly overlaps the ZTV at the edge of the study area).

The host landscape character of the Coastal Farmland – Borders LCT would be directly affected by the proposed development. Moving away from the Site area, other areas of landscape character could be indirectly affected by views of the proposed development and through effects on their visual or key perceptual characteristics and qualities such as 'openness' or 'naturalness'.

4.3 The Landscape of the Site and its Context

The proposed solar arrays and northern access route from Howpark Road are located within the Coastal Farmland LCT, occupying an area of undulating and open pasture fields, broadly facing south east around the local summit of Bell Hill. The pasture fields are bounded by a mixture of post and wire fencing, drystone walls and hedgerows. There are some mixed, coniferous/broadleaved shelterbelts and linear woodland along the Howpark Burn with a coniferous tree belt that crosses the Site running from north to south.

The wider landscape is characterised by gently undulating hills, incised valleys and a dramatic coastline, with a mixture of arable and pasture field sizes, bounded by hedgerows and shelterbelt woodland, including coastal settlement and small towns. The landscape to the north is partly designated under the Berwickshire Coast SLA.

Table 4.1 below describes the key characteristics as defined by NatureScot of each LCT and assesses in outline the areas that would be either directly or indirectly affected by the proposed development.

Table 4-1: LCT Summary

LCT	Key Characteristics	Comments
Plateau Farmland: Borders (100)	It is a diverse coastal landscape of rolling farmlands and rugged sea cliffs. • Strongly rolling terrain interrupted by narrow, deeply-incised stream valleys. • Coastline formed by high, near vertical cliffs carved into strongly-folded resistant sedimentary rocks. • Land cover dominated by arable and pastoral fields of varying size. • Gorse and other scrub common on steep slopes and exposed locations. • Field boundaries of mature thorn hedges with occasional hedgerow trees on lower ground. • Towns sited at the coast in sheltered folds and valleys.	This LCT lies approximately 1km to the west of the proposed development at its nearest point (the junction of the existing access track and the local road). It is located approximately 2.2km from the proposed solar arrays. The ZTVs indicate sporadic visibility from this LCT from the east facing slopes towards the Site. Viewpoint 5: Butterdene represents views from this LCT (Figures L-11 A and B). The wind farm at Quixwood Moor has a dominant effect in this LCT with a smaller group of three turbines at Brockholes. Landscape Effects would be indirect.

LCT	Key Characteristics	Comments
	• Diversity of small-scale topographic and land cover elements. • Expansive views	
Rolling Lowland Margin (107)	It is a gently undulating open landscape with a regular pattern of arable fields and scattered pastures. • Smooth sloping and gently rolling landform. • Open land cover of large arable and occasional pasture fields, divided by mature hawthorn hedgerows. Scarcity of tree cover. • Medium density settlement pattern consisting of small stone-built towns, villages and farmsteads. • Designed landscapes with associated estate buildings. • A simple, uniform, organised landscape of gentle curves, open in character withdistant and panoramic views	This LCT approximately 3km to the south east of the proposed development at its nearest point. The ZTVs indicate 2 discrete areas of potential visibility. South east facing slopes to north of Auchencrow and also from the south east facing slopes around Pressmains. Landscape effects would be indirect.
Coastal Farmland: Borders (110)	This consists of two discrete character areas centred on Cockburnspath and Coldingham respectively, separated from one another by the higher ground of Coldingham Moor. It is a diverse coastal landscape of rolling farmlands and rugged sea cliffs. • Strongly rolling terrain interrupted by narrow, deeply-incised stream valleys. • Coastline formed by high, near vertical cliffs carved into strongly-folded resistant sedimentary rocks. • Land cover dominated by arable and pastoral fields of varying size. • Gorse and other scrub common on steep slopes and exposed locations.	This is the host LCT for the solar arrays and the existing northern access route from Howpark Road. There would be direct effects on the area where the proposed development is located. Within the wider LCT the ZTVs indicate that visibility would be largely restricted to within 1-2 km of the proposed development. Visibility beyond this to the east would be fragmented. Landscape effects would be direct and indirect. Viewpoints 2: Upper Howpark Road, 3: Lower Howpark Road, 6: Highview Caravan Park and 7: Local Footpath to the south (Figures L-08, L-09, L-12 and L-13 A and B respectively). The discrete area of this LCT by

LCT	Key Characteristics	Comments
	• Field boundaries of mature thorn hedges with occasional hedgerow trees on lower ground. • Towns sited at the coast in sheltered folds and valleys. • Diversity of small-scale topographic and land cover elements. • Expansive views.	the coast to the north west would not overlap with the ZTV. This is the more sensitive of the two distinct areas. The wind farm cluster is prominent. The access track is existing, and no change would result from this element of the proposed development.
Coastal Moorland: Borders (112)	This LCT is represented by a single unit centred on the coastal plateau of Coldingham Moor, forming a coastal plateau landscape bounded by steep cliffs and with a coarse moorland vegetation. To north and south it merges with the Coastal Farmland type, the core area being characterised by a less productive land cover of heather moorland, coarse grassland, rush pasture and scrub. • Expansive flat to gently rolling plateau sloping steeply to rugged cliffs at the coast, punctuated by occasional knowles and rock outcrops. • Open land cover of rushes and coarse grassland in flatter areas, heather moorland on upper slopes, scattered gorse and locally prominent conifer plantations. • Widely dispersed farmsteads along minor roads • Wind energy development visually dominant in the west. • Barren, exposed character and dramatic open views over the cliff-tops to the North Sea.	This LCT lies to the north of the Site at a distance of approximately 0.2km. Drone Hill Wind Farm, Penmanshiel Wind Farm and Howpark Wind Farm are located to the western part of this landscape. Close to and within the site areas of these wind farms is now a “wind farm landscape character type” where wind turbines are at least a key characteristic of the landscape if not a dominant characteristic of the area. The condition of some of the field boundaries is variable and would benefit from some restoration and linking of shelterbelts and woodland areas. It contains the Berwickshire Coast SLA. The ZTVs indicate very little visibility from this LCT which would likely be restricted further by local intervening vegetation or built form. Coastal views would not be affected.

LCT	Key Characteristics	Comments
Pastoral Upland fringe Valley (117)	It is a diverse valley type of medium scale. The key characteristics are described as follows: • Medium scale pastoral valley with flat floor enclosed by upland fringe pastures, often with rough grassland and moorland covered hills above. • Smooth large scale landform modified in places by bluffs and moraine on valley floor, scree slopes or rock outcrops on valley sides. • Narrow, often wooded tributary side valleys. • Broadleaf woodlands and scrub on bluff slopes and scattered trees along river banks, occasional coniferous plantations and shelterbelts on valley sides. • Valley floor pastures enclosed by drystone dykes with occasional hedgerows, interspersed with occasional patches of scrub, coarse grass and rushes. • Scattered villages, farmsteads and mansion houses with policy woodlands.	This is the host LCA for the existing access track to the south linking to the A1 trunk road. There would be no direct change to the landscape attributable to the access road. Within the wider LCT the ZTVs indicate some visibility from the east facing valley sides along the A1 trunk road to the south. The A1 trunk road, railway and power lines follow the valley floor and have strong visual impact in places. To the west and north visibility is also indicated from higher areas around Howpark and Harelawside, extending to the ridge around Penmanshiel Wood. Viewpoints 1: Renton Barns and 5: Southern Upland Way above Harelawside illustrate views from within this LCT. (Figures L-07 and L-10 A and B respectively).

The landscape elements within the Site that have potential to be directly affected by the proposed development can be summarised as follows:

- grazed pasture; and
- wetland habitats.

4.4 Sensitivity of Landscape Receptors

In accordance with GLVIA3 the sensitivity of landscape receptors is determined by combining their value with their susceptibility to the type of development proposed.

4.4.1 Value of the Landscape

In determining the value of landscapes, it is helpful to start with landscape and landscape-related designations. In this context it is important to note that the Site is not within any

designations for valued landscapes, such as SLAs or National Parks, at either a national or local authority level.

GLVIA3 states that the value of undesignated sites should also be considered. In this context it is important to note that the Site is not designated for heritage reasons. There is no recreational access across the Site itself, but there are routes within the local landscape including a non-designated route directly to the south of the proposed development which will be maintained. The pasture is grazed and contains no notable features or elements, with the exception of the existing woodland (which would not be affected by the proposed development). The scenic quality of the Site is heavily influenced by the wind farm cluster to the north.

The Site is not considered to have demonstrable physical attributes that would elevate it above other landscapes and make it a valued landscape. In this context it is concluded that the overall value of the Site is community.

In addition, the following technical guidance sets out criteria for assessing non designated landscape value - Landscape Institute (May 2021) Assessing Landscape Value Outside National Designations, Technical Guidance Note 2/21.

The value of the wider landscape within the study area is summarised in Table 4-2.

Table 4-2: Landscape Value

LCT	Value
Plateau Farmland: Borders (100)	There are no designated landscapes within this LCT. A number of recreational routes cross this area including the Southern Upland way. The value is therefore assessed to be Local Authority/ Community.
Rolling Lowland Margins (107)	There are no designated landscapes within this LCT. A number of recreational routes cross this area including Thief's Road Heritage Path and some Public Rights of Way. The value is therefore assessed to be Local Authority/ Community.
Coastal Farmland: Borders (110)	There are no designated landscapes in this LCT. A number of recreational routes cross this area, notably core paths and public rights of way. The value is therefore assessed to be Local Authority/ Community.
Coastal Moorland: Borders (112)	This LCT overlaps with the Berwickshire Coast SLA. a number of recreational routes cross this area notably the Berwickshire Coastal way and Heritage Paths. The value is therefore assessed to be Local authority.
Pastoral Upland fringe Valley (117)	There are no designated landscapes in this LCT. A number of recreational routes cross this area, notably heritage paths and public rights of way. The value is therefore assessed to be Local Authority/ Community.

4.4.2 Susceptibility of Landscape

The susceptibility of the landscape within the Site to accommodate the proposed development is strongly influenced by its pastoral nature though the existence of mature belts of trees which improve its ability to absorb the development into the landscape. It is therefore concluded that the overall susceptibility of the Site to the proposed development is medium.

It is assessed that the Coastal Farmland Borders LCT would have a low susceptibility to the proposed development within the Site and a low susceptibility to the LCT as a whole.

The assessment of the susceptibility of the wider landscape is summarised in Table 4-3.

Table 4-3: Landscape Susceptibility

LCT	Susceptibility
Plateau Farmland: Borders (100)	The susceptibility is considered to be of medium to low susceptibility to the proposed development. This is generally reflective of the level of enclosure resulting from landform and/or vegetation within the LCTs and how this would limit the susceptibility of the landscape changes taking place in the surrounding landscape (i.e. outside the specific LCT). There are no designated landscapes in these LCTs. A number of recreational routes cross this area, notably heritage paths and public rights of way.
Rolling Lowland Margins (107)	
Coastal Farmland: Borders (110)	
Pastoral Upland fringe Valley (117)	
Coastal Moorland: Borders (112)	The susceptibility is considered to be of medium susceptibility to the proposed development. Coastal views are not affected and enclosure resulting from landform and vegetation would limit susceptibility of the landscape changes taking place in the surrounding landscape (i.e. outside the specific LCT).

4.4.3 Sensitivity of Landscape

In overview, the Site has an overall Local Authority/ community value and a medium susceptibility to the proposed development. The overall sensitivity of landscape receptor to the proposed development is therefore considered to be medium sensitivity across the Site.

Within the wider landscape the Coastal Farmland Borders, Rolling Lowland Margins, Plateau Farmland Borders and Pastoral Upland Fringe LCTs the value is assessed to be local authority/ community and the susceptibility low to medium. The sensitivity is therefore assessed to be medium to low.

The value of the Coastal Moorland Borders LCT is assessed to be Local Authority and the susceptibility medium. The sensitivity is therefore assessed to be medium.

4.5 Potential Magnitude of Landscape Change

In accordance with GLVIA3 potential changes to the individual landscape receptors have been assessed in relation to:

- the size and scale of change;
- the geographical extent of change; and
- the duration and reversibility of change.

4.5.1 Size and Scale of Change for Landscape Receptors

The proposed development would result in the introduction solar panels and associated elements within undeveloped agricultural land. Within the Site itself there would be disturbance associated with the construction activities, with vehicle movements, installation of the solar panels and construction of the other elements of the proposed development. The key existing elements that would be lost comprise parts of the agricultural land within the Site. However, the proposed development would not prevent the land being used for grazing following the construction phase and this could be reinstated afterwards, with the land being used between the solar panels. Whilst there would be some loss of landscape features, the overall landscape pattern would be retained, protected and in places restored or reinforced through the proposed landscape strategy. Overall, the proposed development

would be set within the existing landscape pattern and could be integrated within the hedgerows, field margins and woodlands.

The scale of change would be reduced by the influence of the existing wind farm cluster to the north the Site. Overall, there would be a large scale of change on landscape receptors due to the replacement of open pasture with solar panels within the Site, but a small scale of change in relation to the wider LCT due to retention and enhancement of the existing field pattern.

Within the wider landscape (LCTs Coastal Farmland Borders, Rolling Lowland Margins, Pastoral Upland Fringe Valley and Plateau Farmland Borders) is assessed to be small to negligible size and scale of change due either to the small area of the landscape affected and/or the distance from the proposed development.

The size and scale of change on the Coastal Moorland Borders LCT would be negligible to no change due to the very limited effect on the landscape.

4.5.2 Geographical Extent of Change for Landscape Receptors

The proposed development would result in physical changes across the Site and the host LCT. However, it is likely that there would be limited indirect effects on the character of landscape around the Site. The ZTVs demonstrate limited potential visibility of the proposed development in relation to the Coastal Landscape LCT. Other LCTs within the study area would also have limited or fragmented visibility due to local vegetation within the intervening landscape. This would limit the geographical extent of change and provide effective visual screening resulting in the extent of any effects being limited. There would be a medium extent of change largely limited to the Site itself, there would be a small extent of change within the wider LCT.

Within the wider landscape (LCTs Coastal Farmland Borders, Pastoral Upland Fringe Valley, Coastal Moorland Borders and Plateau Farmland Borders) The extent of change will affect a small geographical area. A localised change, often focused on the Site itself.

4.5.3 Duration/Reversibility of Change for Landscape Receptors

The Proposed Development would be long term, but it would have a defined life of 40 years and the changes would be reversed following decommissioning.

4.5.4 Potential Magnitude of Change for Landscape Receptors

The potential magnitude of change is summarised in Table 4-4.

Table 4-4: Magnitude of Change

LCT	Geographical Extent	Size/scale	Duration	Magnitude of change
Plateau Farmland: Borders (100)	Medium	Small to negligible	Long term reversible	Slight
Rolling Lowland Margins (107)	Small	Small to negligible	Long term reversible	Negligible
Coastal Farmland: Borders (110)	Medium to small	Large (to the Site) to small (within the wider LCT)	Long term reversible	Slight to Medium

LCT	Geographical Extent	Size/scale	Duration	Magnitude of change
Pastoral Upland fringe Valley (117)	Medium to small	Small to negligible	Long term reversible	Slight
Coastal Moorland: Borders (112)	Small	Small to negligible	Long term reversible	Negligible to none

The proposed development would result in a medium, localised, magnitude of change within the Site area. Key landscape features and elements that contribute to local landscape character, specifically the local field pattern and woodland, would be retained and augmented by the proposed landscape strategy. In addition, the baseline landscape is strongly influenced by the cluster of wind farms to the north.

The magnitude of change to the wider Coastal Farmland LCT would be slight due to the level of visual containment provided by strong existing woodland present in and around the Site augmented by the proposed improvements to field boundaries, additional native screen woodland and trees within intervening areas which limits the perception of change within the wider landscape. The Landscape Strategy (Appendix 06) provides a scheme of planting and enhancement measures to improve the landscape and biodiversity of the Site.

The magnitude of change to the Coastal Moorland Borders would be negligible to none. The change to the Plateau Farmland Borders and Pastoral Upland Fringe would be slight. Rolling Lowland Margins, would be negligible.

4.6 Potential Landscape Effects of Development

It is likely that development of a solar farm on this Site would result in localised moderate landscape effects on landscape receptors within the Site itself. Effects on landscape receptors within the wider landscape would be very limited (minor at most) due to the level of visual containment provided by strong, existing, and proposed woodland within and around the Site. The change in topography at the edge of the Site which marks the change in character helps to contain views from the north towards the Site. The provision of screen woodland and hedge and hedgerow tree planting around the proposed solar arrays would help to retain and enhance the field pattern and would maintain connections with established woodland and green corridors around the Site.

The potential landscape effects of the development are summarised in Table 4-5.

Table 4-5: Summary of Landscape Effects

LCT	Sensitivity	Magnitude of change	Level of Landscape effect
Plateau Farmland: Borders (100)	Medium to low	Slight	Minor to negligible
Rolling Lowland Margins (107)	Medium to low	Negligible	Minor to negligible
Coastal Farmland: Borders (110)	Medium (to the Site) to medium low (within the wider LCT)	Slight to medium	Moderate (to the Site) to moderate/minor (within the wider LCT)

LCT	Sensitivity	Magnitude of change	Level of Landscape effect
Pastoral Upland fringe Valley (117)	Medium	Slight	Moderate to Minor
Coastal Moorland: Borders (112)	Medium to low	Negligible to none	Minor/ negligible to no effect

5.0 Potential Visual Effects of Development

5.1 Introduction

The following visual appraisal is based upon desk top review and a Site-based assessment undertaken in clear conditions in August 2023 by an experienced Chartered Landscape Architect.

Overall visibility has been determined by desk top analysis of topographic surveys and maps, bare earth and screened ZTVs as well as Site-based assessment.

Seven viewpoints have been identified to represent the range of views available around the Site. The objective in selecting these locations has been to represent a range of views towards the Site which are available from publicly accessible locations at different distances and directions. These viewpoints were agreed through consultation with the Scottish Borders Council.

The location of all viewpoints are illustrated on Figure L-02. For each of the viewpoints, photographs of the existing views and montages have been included (see Figures L-07 to L-13).

In accordance with the recommendations of GLVIA3 the potential level of visual effects has been determined by assessing both the sensitivity of visual receptors and the potential magnitude of visual effect.

5.2 Overall Visibility

ZTVs (bare earth and screened) have been prepared for the proposed development based on observer height of 2m, and show theoretical visibility of two arrays of solar panels within the Site with an elevation of up to 4.5m, which reflects the potential maximum panel height at their most vertical. However, the panels would rotate and the maximum panel height would be applicable during relatively limited durations each day. Figure L-01 provides a bare earth ZTV and Figures L-02 and L-03 a screened ZTV. The screened ZTV accounts for the screening effect of settlements and woodland blocks using a height value of 8m for buildings and 10m for woodland. For legibility, ZTVs overlapping residential properties, Landscape designations and Landscape Character Areas have been produced (Figures L-03, L-04A and L-06 respectively). The ZTV does not account for the localised screening effects of vegetation (i.e., hedgerows, individual trees, small tree groups or scrub along roadside verges etc. It should also be noted that the entirety of the A1 is screened by established vegetation as shown in aerial mapping and street view.

The key findings of the ZTV indicate:

- Most residential receptors are concentrated within the valley to the south west of the proposed development plus dispersed properties on the valley sides including Highview Caravan Park illustrated in Figure L-03. The ZTV indicates theoretical visibility from some residential properties to the south along the A1 corridor.

- Recreational routes to the north and east have very restricted visibility from short sections of the routes only as illustrated on Figure L-04A. Intervening screening by woodland blocks, terrain (and/or buildings) restricts views which would be non-existent to minimal for the entirety of the routes. As shown on Figure L-04A there would be more open/expansive views from a heritage path which runs along the southeast facing slopes around Harelawside; and from a small section of the Southern Upland Way close to Blackburn from the west of the Site.
- Views would be prevented or severely restricted from locations to the north east, east, and south east including the coastal fringes, due to intervening landform associated with the slopes around the Site.
- Potential views of the proposed development would be most likely from the north west, in proximity of Penmanshiel Moor Wind Farm and Blackburn from the west.
- Local views from the immediate west would include potential visibility at Harelawside and clear visibility from around Howpark Road.

5.3 Potential Visual Receptors

Within the visual envelope of the proposed development the following types of visual receptors have the potential to experience changes in their views:

- residential receptors within 2km including visitors to and residents of Highview Caravan Park;
- walkers on National and local footpaths:
    - National Walking Trail - the Southern Upland Way (also the Sir Walter Scott Way, Scottish Hill Track no. 31 Cockburnspath to Duns and Core Path No. 189) linking Pease Bay in the north to Blackburn in the south. This travels through Penmanshiel Woodland and only overlaps the ZTV around Blackburn.
    - Core Path Network and other local Recreational Routes including Heritage Paths
        - The Moss Road (also Right of Way) lies approximately 3km to the north east but only a very section to the north of North Falaknowe overlaps the ZTV in an area of low visibility;
        - Laird's Road (also Core Path 100) lies approximately 2.5km to the west and overlaps the ZTV between Harelawside to the south and Andrew's cairn to the north; and
        - Thief's Road (also Right of Way) lies approximately 4km to the south around Horsely Hill and Warlawbank.
    - Rights of Way including;
        - Right of Way between Moorhouse and Howpark Road running through Drone Hill Wind Farm lies to the north adjacent to Howpark Wind Farm. Approximately 500m of this route overlaps with the ZTV where it runs through the dominant Drone Hill turbines;
        - Right of Way between Huxton and Houndwood lies approximately 1km to the east and overlaps with the ZTV between Hopestead and Bogbank;
        - Right of Way between Bowshiel and Blackburn lies approximately 4.5km to the west where it intersects with the Southern Upland Way; and
        - Right of Way between A6112 and the promoted path to Blackburn lies approximately 4km to the south west and utilises an on road route which shows some overlap with the ZTV; and

- vehicle users on local roads.
    - Howpark Road overlaps the ZTV between Cedar Café in the south and Drone Hill windfarm to the north.
    - A1107 does not overlap the ZTV and is scoped out from this appraisal.
    - A1 trunk road. Overlaps the ZTV for a short section around Grantshouse. Site survey confirmed local built and vegetative screening not picked up the ZTV would screen the proposed development and so is scoped out from this appraisal.
    - A6112 the ZTV indicates visibility from two short sections of this route around Berryhill and near the junction with the A1.

5.4 Assessment of Sensitivity of Visual Receptors

Sensitivity of visual receptors is assessed by combining an assessment of the susceptibility of visual receptors to the type of change which is proposed with the value attached to the views.

In terms of susceptibility, residential receptors, walkers and cyclists are likely to be of greater susceptibility to change (high), as they are more likely to be focused on views of the landscape. Vehicle users are less susceptible to visual change (low) as they have intermittent, transitional views of the landscape.

In terms of value, residential receptors have a high value. For routes that are promoted nationally or locally the value is high. This includes long distance trails and heritage paths that are also promoted for heritage associations. Local roads in the study area not promoted as scenic or tourist routes and so their value to users is assessed as low in this instance.

The value of residential receptors, walkers and cyclists is also assessed to be high (medium on the non-promoted local footpath) while the value of road users is assessed to be medium.

Viewpoints have been selected to represent sensitive residential viewpoints (Viewpoints 1 and 6), walkers and cyclists (Viewpoints 2, 3, 4 and 7) and local roads (Viewpoints 2, 3 and 5).

The assessment of sensitivity for each receptor group is summarised in Table 5-1.

Table 5-1: Summary of Sensitivity of Visual Receptors

Receptor	Value	Susceptibility	Sensitivity
Residents	High	High	High
Walkers and cyclists on promoted long distance walking routes and heritage paths, Core Paths, Rights of Way	High	High	High
Walkers and cyclists on non-promoted routes	Medium	High	Medium
Visitors to Highview caravan park assessed as residents.	High	High	High
Vehicle users	Medium	Low	Medium

5.5 Potential Magnitude of Change for Receptors

The criteria used for this analysis are taken from GLVIA 3 paragraphs 6.31 to 6.41, which include size/scale, geographical extent and duration.

5.5.1 Residential Receptors

Residential receptors have been assessed to have a high visual sensitivity.

Viewpoints 1 and 6, and associated Year 1 photomontages (Figures L-07 A and B and L-12 A and B), illustrate the existing and proposed view from the closest properties to the proposed development.

Figure L-03 indicates all potential residential receptors or groups of residential receptors within 2km of the proposed development. There are a total number of 78 potential residential receptors within 2km of the proposed development. It should be noted that ZTVs assess potential visibility from the centre of the property and do not allow for direction and location of windows. Ground truthing by a chartered landscape architect assessed visibility from potential residential receptors accounting for the orientation of the properties and localised screening effects not illustrated by the ZTVs.

The following properties or groups of properties are scoped out of the appraisal due to either orientation of the properties or localised intervening screening.

- Grantshouse group – these properties are unlikely to view the proposed development due to localised intervening built or vegetative screening. Further to this most properties are orientated towards the valley floor away from the direction of the proposed development.
- Howpark group – Howpark Farm is screened from the proposed development by intervening farm buildings. Other properties in this group are screened by intervening roadside vegetation on Howpark Road.
- South Howpark Road/ Harelawside group – Properties around Cedar Café to the south of Howpark Road would be screened by localised roadside vegetation. Harelawside Farm benefits from screening around the property and intervening farm buildings screen views from Harelawside bungalow.
- Renton House group – This group includes Renton House, Gardeners Cottages and bunglalow. Gardeners cottages and bungalow are orientated to the south away from the proposed developmen are screened by intervening vegetation to the north of the properties. There may be some visibility towards the proposed development from the upper windows or Renton House only.
- Brockholes – Properties at Brockholes are orientated to the south east away from the direction of the proposed development and are screened from views by intervening vegetation to the north of the properties.

The appraisal identifies 11 properties or groups of properties with potential visibility of the proposed development. Views from upper windows of a single further property are possible from Renton Hall.

Key residential receptors within the study area comprise:

1 Renton Barns Farmhouse;

2 Renton Barn Steading (Figures L-07 A and B);

3 Renton Barns Cottages 1-5;

4 Highview Caravan Park (Figures L-12 A and B);

5 Bogbank Farmhouse;

6 Greenwood Farmhouse; and

7 Butterdene (Figures L-11 A and B).

Renton Barns Farmhouse is a two-storey property with farm buildings and farmyard areas to the north. There is a small garden with a domestic scale turbine to the east. Large gardens to the south and east with a separate southern entrance and parking area.

The proposed development would be theoretically visible to the north east from the upper gable windows to the rear of the property and from the approach to the property at a distance of approximately 1.2km. The main aspect of the property and its gardens are to the south away from the proposed development. From the rear garden area views would be obscured by the property to the east, Renton Barn. The scale/size of change would be small and the geographical extent of change would be negligible. The duration would be long term reversible. The overall magnitude of change would be slight and overall the level of effect would be moderate/minor at year one reducing to minor at year 15 when mitigation planting matures.

Renton Barn Steading (Figures L-07 A and B) is a two storey renovated barn property with garden areas to the east and south of the property. Its main orientation is east facing towards the proposed development. The proposed development would be visible at a distance of 1.1km on the skyline with Howpark Wind Farm visible to the west in the sequential view. Views would be mitigated by proposed scrub trees (see Appendix 06) to the west of the access track which would in time breakup the view on the horizon. The scale/size of change would be medium and the geographical extent of change would be negligible. The duration would be long term reversible. The magnitude of change would be medium and the overall level of effect would be moderate at year one reducing to minor at year 15 when mitigation planting matures.

Renton Barns Cottages 1-5 forms a terrace of 5 two storey cottages orientated towards the south west away from the proposed development. Accessed by a private farm track with cars parked to the rear (north) of the properties. Existing turbines at Drone Hill and Howpark are visible from the rear of the properties.

The proposed development would be visible to the north east from the upper windows at the back of the properties. The main southerly aspect and garden areas to the south would not be affected. The size/scale of change would be small to negligible and the geographical extent of change would be negligible. The duration would be long term reversible. The magnitude of change would be negligible to slight and the overall level of effect would be minor to negligible.

Highview Caravan Park (Figures L-12 A and B) is located to the east of the proposed development at a distance of 240m. There are limited views towards the proposed development from within the Caravan Park towards the eastern section of the proposed solar array only. Scrub woodland to the west of the caravan park, local changes in topography and the caravans limit views to the east. Proposed native hedgerow and hedgerow tree planting to the west of the solar panels (Appendix 06) will in time further mitigate views from this receptor. The scale/size of change would be small and the geographical extent of change would be negligible. The duration would be long term reversible. The magnitude of change would be minor/negligible, and the overall level of effect would be minor to negligible at year one reducing to negligible at year 15 when the mitigation planting matures.

Bogbank Farmhouse is located approximately 1.3km to the south east of the proposed development. Bogbank is a traditional farm property accessed via a long farm track. The main orientation and open views are to the north and north west whilst mature garden vegetation and woodland are located to the east and south and large farm buildings to the east.

The proposed development would be theoretically visible to the north west. Existing coniferous trees in the centre of the proposed development would screen panels to the west. Proposed hedge and hedgerow tree planting to the eastern of the eastern solar array would further filter views. The scale/size of change would be small and the geographical extent of change would be negligible. The duration would be long term reversible. The magnitude of

change would be negligible to slight and the overall level of effect would be minor to negligible year one reducing to negligible at year 15 when the mitigation planting matures.

Greenwood Farmhouse is a large, south facing, stone farmhouse, in an elevated position, accessed via a long farm track. The property is surrounded to the north and north west by a silo and large farm buildings and the garden area is to the south of the property bordered by large mature deciduous trees. To the west elevation there are further mature trees. To the north of the farmhouse is a derelict two-storey property. Its main orientation is to the south with two small windows on the north elevation.

The proposed development would be screened by intervening farm buildings. It is predicted that that proposed development would not be visible from this property and there would be no resulting change or effect on visual amenity.

Butterdene is a row of two storey properties located off a local minor road approximately 4km to the south east of the proposed development. The main orientation of the properties is to the south east away from the proposed development. Viewpoint 5 (Figure 10.5 A and B) represents views from the adjacent local road on approach to these properties. The front gardens are unlikely to be affected due to local garden screening. The size/scale of change would be small to negligible and the geographical extent of change would be negligible. The duration would be long term reversible. The magnitude of change would be negligible to slight and the overall level of effect would be minor to negligible. This would remain the same at year 15 due to the intervening distance the mitigation planting would not be so noticeable.

5.5.2 Walkers and Cyclists

In reference to Table 5-1, walkers on the Southern Upland Way and Heritage Paths are assessed to be of high value as they are promoted in maps and literature as either long distance national trails and/or for cultural associations. Core Paths and Rights of Way have been assessed to have a high value as they are promoted locally. The local path to the south of the Site is not promoted and has therefore been assessed to be of medium value. All recreational routes are assessed to be of high susceptibility to change. The visual sensitivity is therefore assessed to be high for the Southern Upland Way and Heritage paths and high for core paths and Rights of Way. The local route to the south of the Site is assessed to be of medium sensitivity.

Cyclists on road (Howpark Road) have been assessed to be of high value as they are promoted through on road signage and high susceptibility to change. The visual sensitivity is therefore assessed to be high.

Viewpoint 4 (Figure L-10 A and B) illustrates existing and proposed views from the Heritage Path – Lairds Road (also core path 2, a long distance trail footpath).

Viewpoints 2 (Figures L-08 A and B) and 3 (Figures L-09 A and B) represent existing and proposed views from Howpark Road (on road cycling route) and Viewpoint 2 additionally intersects with the local footpath to Drone Hill Wind Farm. Viewpoint 7 represents the existing and proposed view from the local undesignated footpath linking Highview Caravan Park to the A1 (Figure L-13 A and B). The users of this path have been assessed to have a medium sensitivity as it is an unmarked and undesignated route.

National Walking Trail - the Southern Upland Way (also the Sir Walter Scott Way, Scottish Hill Track no. 31 Cockburnspath to Duns and Core Path No. 189)

The route would have one section of views of the solar farm, this being from a short elevated section of the route around Blackburn. The solar farm would be visible at a distance of approx. 4.5km. Occupying a small section of the overall horizontal or vertical view. The total length of the route within the study area is approximately 8km overall with a length of approximately 1.5km overlapping the ZTV. The solar farm fits well into the existing field

pattern. Proposed scrub tree planting to the west of the proposed development (Appendix 06) would further mitigate the view. The size/scale of change would be small to negligible and the geographical extent of change would be negligible. The duration would be long term reversible. The magnitude of change would be negligible to slight and the overall level of effect would be minor to negligible at year one reducing to negligible at year 15 as screen planting matures.

Heritage Paths

Laird's Road (also Core Path 100) lies approximately 2.5km to the west and overlaps the ZTV between Harelawside to the south and Andrew's cairn to the north. Figure L-10 A and B illustrate the view from a section of the route. Approximately 3km of this route overlaps the ZTV. The proposed development would be seen in the context of the existing wind farm cluster to the north which would be the more prominent feature in the view. It would occupy a small area of the overall panoramic views which tend to be more focused to the south and south east. The size and scale of visual change would be small to negligible. The geographical extent of change would be medium and the duration of change would be long-term reversible. The magnitude of change would be slight to medium and the overall level of effect would be minor / moderate at year one reducing to minor at year 15 when screen planting to the west boundary of the Sit

e matures.

The Moss Road (also a Right of Way) lies approximately 3km to the north east but only a very short section to the north of North Falaknowe overlaps the ZTV in an area of low visibility. The size and scale of visual change would be small to negligible. The geographical extent of change would be small to negligible and the duration of change would be long term reversible. The magnitude of change would be slight/ negligible and the overall level of effect would be minor/ negligible reducing to negligible at year 15 when screen planting to the east of the Site matures.

Thief's Road (also Right of Way) lies approximately 4km to the south around Horsely Hill and Warlawbank.

The ZTV indicates that these routes would have intermittent/fragmented and limited visibility towards the proposed development. The size and scale of visual change would be small to negligible. The geographical extent of change would be small to negligible, and the duration of change would be long term reversible. The magnitude of change would be slight/ negligible, and the overall level of effect would be minor/ negligible at year one reducing to negligible at year 15 as screen planting matures.

Rights of Way

- Right of Way between Moorhouse and Howpark Road running through Drone Hill Wind Farm adjacent to Howpark Wind Farm;
- Right of Way between Huxton and Houndwood lies approximately 1km to the east.
- Right of Way between Bowshiel and Blackburn lies approximately 4.5km to the west; and
- Right of Way between A6112 and the promoted path to Blackburn lies approximately 4km to the south west.

The screened ZTV (Figure L-03) indicates that these routes would have fragmented/sporadic and limited visibility towards the proposed development. The proposed development would be seen in the context of the existing wind farm cluster to the north which would be the dominant feature in the view. The size and scale of visual change would be small to negligible. The geographical extent of change would be small and the duration of change

would be long-term reversible. The overall magnitude of visual change would be slight / negligible and the overall level of effect minor to negligible.

The viewpoints indicate that visibility of the proposed development from the footpaths is very limited and views are heavily screened by existing vegetation and built form.

Undesignated Local Footpath route from Highview Caravan Park to the A1

This route lies adjacent to the Site and illustrated by Viewpoint 7 (Figures L-13 A and B). The solar panels would be viewed on the horizon and at distance of approximately 160m. Although viewed from a close distance the horizontal extent of the view would not be overpowering. The main open views from this footpath are to the panoramic views across the countryside to the south and away from the proposed development. The tips of Howpark Wind Farm also visible in the view behind the proposed solar farm.

The size and scale of visual change would be medium. The geographical extent of change would be small and the duration of change would be long-term reversible. The overall magnitude of visual change at the closest range would be medium. Views from other parts of the route would be very limited with the proposed development seen in the context of other renewable development and heavily screened by a combination of existing vegetation and existing built form. The overall level of effect would be moderate to minor.

5.5.3 Vehicle Users and Howpark Road – On road cycle route

Vehicle users have been assessed to have a medium visual sensitivity (Table 5-1). As travellers the view is incidental to the journey, giving a low susceptibility and a medium value as the route is promoted locally through on road signage.

Viewpoints 2 and 3 illustrate potential views from the road network at Howpark Road (Figures L-08 A and B and L-09 A and B).

The proposed development would be visible from Howpark Road, which passes through the Howpark Wind Farm and links the A1107 from the north to Grantshouse and the A1. The route has limited use but is sign posted as a cycle route and visual amenity for users of this route is already affected by the existing wind farm cluster. From Upper Howpark Road the proposed development would be viewed beyond Howpark Wind Farm at a distance of approximately 1km. The solar panels would be visible to both sides of the existing forestry at Bell Hill viewed across the pasture fields interspersed with stone walls and shelter belts of woodland with panoramic views beyond to the south. From Lower Howpark Road the larger, western array of solar panels only would be visible to the west of the summit of Bell Hill at a distance of approximately 0.75km. Howpark Wind Farm is visible to left of the view. The proposed development sits well within the existing field pattern and in time would be further mitigated by scrub tree planting to the west boundary of the Site and also to hedgerow and hedgerow tree and shelter belt planting to the boundaries of the eastern array (Appendix 06).

In the short-term the size and scale of visual change would be medium at the closest range views. The geographical extent of change would be small and the duration of change would be long-term reversible. The overall magnitude of visual change at the closest range would be medium . The level of effect would be moderate at year one reducing to minor at year 15for lower sections of the road where proposed planting to the western boundary would create some screening.

There would be no views from the A1107 (and NCR 76) to the north or the A1 to the south.

There would be a short view from the A6112 around Berryhill. This would be seen in

The context of the existing Windfarms and would sit well within the existing field pattern. The size and scale of visual change would be negligible. The geographical extent of change would be negligible and the duration of change long term reversible. The overall magnitude of visual change would be negligible. The level of effect would be minor to negligible.

The proposed development would not be particularly conspicuous from other transport routes in the study area.

5.6 Summary of Potential Visual Effects

The Site is rural in character, although the wind farm cluster formed by Drone Hill, Penmanshiel and Howpark Wind Farms forms a prominent element in the baseline landscape.

The proposed development is likely to result in some localised moderate visual effects for the closest residents at Renton Barns in the short-term, reducing to minor / moderate over time as the planting that forms part of the proposed landscape strategy establishes.

A moderate visual effect is predicted for walkers along the local undesignated footpath route to the south of Bell Hill when passing the Site. However, it is predicted that the effects on visual amenity for people walking other routes in the landscape surrounding the Site would be minor to negligible with the exception of Lairds Road Heritage Path where the predicted effect on visual amenity would be minor/moderate.

There would be a minor / moderate, at most, visual effect on users of the road network.

The proposed development would be seen within a rural landscape, although in context of/ against a backdrop of the wind farm cluster to the north. The proposed development respects the local field pattern, with this being maintained and enhanced through the design of the proposed development. The proposed native shelter belts, hedges and hedgerows trees would further help to integrate the proposed development with the local landscape and in time, as the vegetation establishes and matures, further mitigate the level of visual effect.

A full summary of predicted effects is included in Table 5-2.

Table 5-2: Summary of Potential Visual Effects

Receptor	Magnitude of Change	Sensitivity	Effect	Residual (Mitigated) Effect at Year 15
Renton Barns Farmhouse	Slight	High	Moderate / Minor	Minor
Renton Barn Steading	Medium	High	Moderate	Minor
Renton Barns Cottages 1-5	Negligible/Slight	High	Minor/Negligible	N/A
Highview Caravan Park	Minor/Negligible	High	Minor/Negligible	Negligible
Bogbank Farmhouse	Negligible/Slight	High	Minor/Negligible	Negligible
Greenwood Farmhouse	No Change	High	No Change	N/A
Butterdene	Negligible/Slight	High	Minor/Negligible	N/A
Southern Upland Way (Also Walter Scott Way, Scottish Hill track 31 and Corepath 189)	Negligible/ Slight	High	Minor/ Negligible	Negligible
Lairds Road Heritage Path (also Corepath 100)	Slight/ Medium	High	Minor/ Moderate	Minor
Moss Road (Also Right of Way)	Negligible/ Slight	High	Minor/ Negligible	Negligible
Thiefs Road (also Right of Way)	Negligible/ Slight	High	Minor/ Negligible	Negligible
Rights of Way	Negligible/ Slight	High	Minor/ Negligible	Negligible

Receptor	Magnitude of Change	Sensitivity	Effect	Residual (Mitigated) Effect at Year 15
Undesignated local footpath to south of the Site	Medium	Medium	Moderate/ Minor	Moderate/ Minor
Howpark Road – on road cycle route	Medium	Medium	Moderate	Minor
B6112	Negligible	Medium	Minor to negligible	Negligible

6.0 Discussion and Conclusions

An LVA has been carried out for a proposed new solar development adjacent to Howpark Wind Farm near Grantshouse. The appraisal follows the latest UK guidance on landscape and visual appraisal and was carried out by experienced landscape architects. The appraisal is based upon a desktop assessment and a number of Site visits in clear weather conditions.

It has been noted that the Site is not within or adjacent to any designations for valued landscapes, including as local landscape designations, National Scenic Areas and National Parks.

The proposed solar array and access from Howpark Road is included within NCT 110: Coastal Farmland. The southern access route from the A1 is contained within NCT 117: Pastoral Upland Fringe valley. Occupying an area of undulating and open pasture fields, broadly facing south east around the local summit of Bell Hill. The pasture fields are bounded by a mixture of post and wire fencing, drystone walls and hedgerows and there are also some mixed, coniferous and broadleaved shelterbelts and linear woodland along the Howpark Burn and the coniferous tree belt that crosses the Site running from north to south. The landscape is characterised by gently undulating hills, incised valleys and a dramatic coastline, with a mixture of arable and pasture field sizes, bounded by hedgerows and shelterbelt woodland, and includes coastal settlement and small towns. The existing wind farm cluster to the north and west is a feature of the landscape.

The landscape appraisal has concluded that there would be localised moderate landscape effects on landscape receptors within the Site itself from the proposed development; no major effects were identified. Effects on landscape receptors around the Site would be very limited (moderate/minor at most) due to the level of visual containment provided by strong, existing woodland along the northern boundary of the Site and around Bell Hill, as well as the change in topography at the edge of the Site which marks the change in character and helps to contain views from the north towards the Site. The potential relative prominence of the proposed development would be mitigated by the proposed native woodland screening, hedge and hedgerow tree planting (Appendix 06) as this begins to establish and mature. The proposed development is contained within the existing field pattern, which would be retained and protected, and it would comprise a relatively small element within the wider panoramic, open views that can be obtained over the local landscape, particularly to the south and south east and away from the focus of the proposed development.

The visual appraisal has concluded that the proposed development would result in long-term, but reversible, moderate, visual effects on one residential property at Renton Barns Steading and for cyclists on sections of Howpark Road. Long term, but reversible, visual effects moderate/ minor visual effects have been identified from one property at Renton Barns Farmhouse, walkers along the undesignated footpath directly to the south of the Site and Laird's Road heritage path (also known as Corepath 100). Potential effects on visual amenity for the residents of Renton Barn Steading, walkers on Laird's Road Heritage Path and cyclists on Howpark Road would reduce to minor over time as the proposed native

scrub trees establish to the west of the Site (Appendix 06). Potential visual effects on other receptors in the study area are predicted to be minor / negligible or less, due to the context of its location in the wider landscape and the screening effects of topography and intervening vegetation. The proposed development would comprise a relatively limited addition within the wide, open and panoramic views that characterise the area.

Appendix A Method used in Assessing Landscape and Visual Effects

Howpark Solar Farm

Landscape and Visual Appraisal

Eurowind Energy Limited

SLR Project No.: 428.V64539.00001

16 November 2023

Introduction

Landscape and Visual Impact Assessment (LVIA) and Landscape Appraisal (LVA) are a tool used to identify the effects of development on *"landscape as an environmental resource in its own right and on people's views and visual amenity"* (GLVIA3, paragraph 1.1). GLVIA3[1] (paragraph 2.22) states that these two elements, although inter-related, should be assessed separately. GLVIA3 is the main source of guidance on LVIA and LVA.

Landscape is a definable set of characteristics resulting from the interaction of natural, physical and human factors: it is a resource in its own right. Its assessment is distinct from visual assessment, which considers effects on the views and visual amenity of different groups of people at particular locations. Clear separation of these two topics is recommended in GLVIA3.

As GLVIA3 (paragraph 2.23) states, professional judgement is an important part of the LVIA/LVA process: whilst there is scope for objective measurement of landscape and visual changes, much of the assessment must rely on qualitative judgements. It is critical that these judgements are based upon a clear and transparent method so that the reasoning can be followed and examined by others.

Impacts can be defined as the action being taken, whereas effects are the changes result from that action. This method of assessment assesses landscape and visual effects.

Landscape and visual effects can be positive, negative or neutral in nature. Positive effects are those which enhance and/or reinforce the characteristics which are valued. Negative effects are those which remove and/or undermine the characteristics which are valued. Neutral effects are changes which are consistent with the characteristics of the landscape or view.

In LVIA/LVAs which form part of an EIA, it is necessary for identify significant and non-significant effects. In non-EIA LVIAs, also known as appraisals, the same principles and process as LVIA may be applied but, in so doing, it is not required to establish whether the effects arising are or are not significant given that the exercise is not being undertaken for EIA purposes (see GLVIA3 statement of clarification 1/13 10-06-13, Landscape Institute).

Landscape Effects

Landscape, as defined in the European Landscape Convention, is defined as "*an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors"*, (Council of Europe, 2000). Landscape does not apply only to special or designated places, nor is it limited to countryside.

GLVIA3 (paragraph 5.34) recommends that the effect of the development on landscape receptors is assessed. Landscape receptors are the components of the landscape that are likely to be affected by the proposed development and can include individual elements (such as hedges or buildings), aesthetic and perceptual characteristics (for example sense of naturalness, tranquillity or openness), or, at a larger scale, the character of a defined character area or landscape type. Designated areas (such as National Parks or Areas of Outstanding Natural Beauty (AONBs) are also landscape receptors.

This assessment is being undertaken because the proposed development has the potential to remove or add elements to the landscape, to alter aesthetic or perceptual aspects, and to add or remove characteristics and thus potentially change overall character.

[1] Landscape Institute and Institute of Environmental Management and Assessment 'Guidelines for Landscape and Visual Impact Assessment' (Third Edition, April 2013)

Judging landscape effects requires a methodical assessment of the sensitivity of the landscape receptors to the proposed development and the magnitude of effect which would be experienced by each receptor.

Landscape Sensitivity

Sensitivity of landscape receptors is assessed by combining an assessment of the susceptibility of landscape receptors to the type of change which is proposed with the value attached to the landscape. (GLVIA3, paragraph 5.39).

Value Attached to Landscape Receptors

Landscape receptors may be valued at community, local, national or international level. Existing landscape designations provide the starting point for this assessment, as set out in Table A1 below.

The table sets out the interpretation of landscape designations in terms of the value attached to different landscape receptors. As GLVIA3 (paragraph 5.24) notes, at the local scale of an LVIA study area it may be found that the landscape value of a specific area may be different to that suggested by the formal designation.

Table A1: Interpretation of Landscape Designations

Designation	Description	Value
World Heritage Sites	Unique sites, features or areas identified as being of international importance according to UNESCO criteria. Consideration should be given to their settings especially where these contribute to the special qualities for which the landscape is valued.	International
National Parks, Areas of Outstanding Natural Beauty, National Scenic Areas	Areas of landscape identified as being of national importance for their natural beauty (and in the case of National Parks the opportunities they offer for outdoor recreation). Consideration should be given to their settings especially where these contribute to the special qualities for which the landscape is valued.	National
Registered Parks and Gardens of Special Historic Interest	Gardens and designed landscapes included on the Register of Parks and Gardens of Special Historic Interest as Grade I, II* or II.	National
Local Landscape Designations (such as Special Landscape Areas, Areas of Great Landscape Value and similar) included in local planning documents	Areas of landscape identified as having importance at the local authority level.	Local Authority
Undesignated landscapes of community value	Landscapes which do not have any formal designation but which may possess some/several indicators of value.	Local Authority/Community
Landscapes of low value	Landscapes in poor condition or fundamentally altered by presence of intrusive man-made structures. Landscapes which possess few or no indicators of value.	Low

Where landscapes are not designated and where no other local authority guidance on value is available, an assessment is made by reference to criteria in the Table A2 below. This is based on Table 1 of Landscape Institute Technical Guidance Note 2/21. These factors are not fixed and should be reviewed on a case by case basis. When assessing landscape value of a site it is important to consider not only the site itself but also its context.

Landscapes may be judged to be of local authority or community value on the basis of one or more of these factors. There may also be occasional circumstances where an undesignated landscape may be judged to be of national value, for example where it has a clear connection with a nationally designated landscape, or is otherwise considered to be of equivalent value to a national designation. Similarly, on occasions there may be areas within designated landscapes that do not meet the designation criteria, or demonstrate the key characteristics/special qualities in a way that is consistent with the rest of the designated area.

An overall assessment is made for each landscape receptor, based on an overview of the above criteria, to determine its value - whether for example it is comparable to a local authority landscape designation or similar, or whether it is of value to local people and communities. For example, an intact landscape in good condition, where scenic quality, tranquillity, and/or conservation interests make a particular contribution to the landscape, or where there are important cultural or historical associations, might be of equivalent value to a local landscape designation. Conversely, a degraded landscape in poor condition, with no particular scenic qualities or natural or cultural heritage interest is likely to be considered of limited landscape value.

Table A2: Factors Considered in Assessing the Value of Non-Designated Landscapes

Factor	Definition (with Examples for Clarification)
Natural Heritage	Landscape with clear evidence of ecological, geological, geomorphological or physiographic interest. Presence of wildlife and habitats that contribute to the sense of place. Landscape which contains valued natural capital assets that contribute to ecosystem services.
Cultural Heritage	Landscape with clear evidence of archaeological, historical or cultural interest. Landscape which contributes to the significance of heritage assets. Landscape which offers a dimension of time depth.
Landscape Condition	Landscape which is in a good physical state both with regard to individual elements and overall landscape structure. Absence of detracting/incongruous features.
Associations	Landscape which is connected with notable people, events and the arts.
Distinctiveness	Landscape that has a strong sense of identity or place. Presence of distinctive features that are characteristic of a place, or presence of rare/unusual features that confer a strong sense of place. Includes landscape that makes an important contribution to the character or identity of a settlement.
Recreational	Landscape offering recreational opportunities where experience of landscape is important. Includes open access areas, common land and rights of way where appreciation of the landscape is an important element of the experience. Landscape that forms part of a view that that is important to the enjoyment of a recreational activity.
Perceptual (Scenic)	Landscape that appeals to the senses, primarily the visual sense. Distinctive features, or distinctive combinations of features. Strong aesthetic qualities. Visual diversity or contrasts. Memorable/distinctive views or landmarks, or landscape that contributes to these.

Factor	Definition (with Examples for Clarification)
Perceptual (Wildness and Tranquillity)	Landscape with a strong perceptual value notably remoteness, wildness, tranquillity and/or dark skies.
Functional	Landscape which performs a clearly identifiable and valuable function, particularly in the healthy functioning of the landscape. Natural hydrological systems, important parts of the green infrastructure network, pollinator rich habitats. Landscapes that have strong physical or functional links with an adjacent national landscape designation, or are important to the appreciation of the designated landscape and its special qualities.

Susceptibility of Landscape Receptors to Change

As set out in GLVIA3, susceptibility refers to the ability of the landscape receptor to *"accommodate the proposed development without undue adverse consequences for the baseline situation and/or the achievement of landscape planning policies and strategies"*. Judgement of susceptibility is particular to the specific characteristics of the proposed development and the ability of a particular landscape or feature to accommodate the type of change proposed and makes reference to the criteria set out in Table A3 below. Aspects of the character of the landscape that may be affected by a particular type of development include landform, skylines, land cover, enclosure, human influences including settlement pattern and aesthetic and perceptual aspects such as the scale of the landscape, its form, line, texture, pattern and grain, complexity, and its sense of movement, remoteness, wildness or tranquillity.

For example, an urban landscape which contains a number of industrial buildings may have a low susceptibility to buildings of a similar scale and character. Conversely a rural landscape containing only remote farmsteads is likely to have a high susceptibility to large-scale built development.

Table A3: Landscape Receptor Susceptibility to Change

Susceptibility	Criteria
High	The landscape receptor is highly susceptible to the proposed development because the key characteristics of the landscape have no or very limited ability to accommodate it without transformational adverse effects, taking account of the existing character and quality of the landscape.
Medium	The landscape receptor is moderately susceptible to the proposed development because the relevant characteristics of the landscape have some ability to accommodate it without transformational adverse effects, taking account of the existing character and quality of the landscape.
Low	The landscape receptor has low susceptibility to the proposed development because the relevant characteristics of the landscape are generally able to accommodate it without transformational adverse effects, taking account of the existing character and quality of the landscape.

Defining Sensitivity

As has been noted above, the sensitivity of landscape receptors is defined in terms of the relationship between value and susceptibility to change as indicated in Diagram A1 below. This summarises the general nature of the relationship but it is not formulaic and only indicates general categories of sensitivity. Professional judgement is applied on a case-by-case basis in determining sensitivity of individual receptors with the diagram only serving as a guide.

Table A4 below summarises the nature of the relationship but it is not formulaic and only indicates general categories of sensitivity. Judgements are made about each landscape receptor, with the table serving as a guide.

Where, taking into account the component judgements about the value and susceptibility of the landscape receptor, sensitivity is judged to lie between levels, an intermediate assessment of high/medium or medium/low is adopted. In a few limited cases a category of less than low (very low) may be used where the landscape is of low value and susceptibility is particularly low.

Diagram A1: Levels of Sensitivity defined by Value and Susceptibility of Landscape Receptors

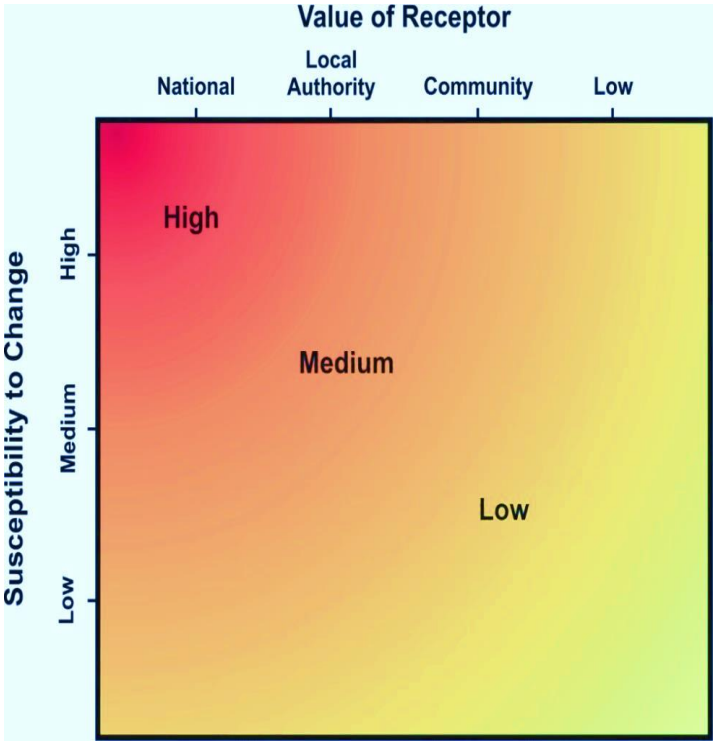


Table A4: Levels of Sensitivity defined by Value and Susceptibility of Landscape Receptors

Sensitivity	Criteria
High	The landscape receptor is of international or national value and is considered to have high susceptibility to the effects of the proposed development OR The landscape receptor is of national value and is considered to have medium susceptibility to the effects of the proposed development.

Sensitivity	Criteria
Medium	The landscape receptor is of international or national value and is considered to have low susceptibility to the effects of the proposed development OR The landscape receptor is of local authority value and is considered to have high susceptibility to the effects of the proposed development OR The landscape receptor is of local authority value and is considered to have medium susceptibility to the effects of the proposed development. OR The landscape receptor is of community value and is considered to have high susceptibility to the effects of the proposed development
Low	The landscape receptor is of local authority value and is considered to have low susceptibility to the effects of the proposed development OR The landscape receptor is of community value and is considered to have medium susceptibility to the effects of the proposed development OR The landscape receptor is of community value and is considered to have low susceptibility to the effects of the proposed development.

Magnitude of Landscape Change

The magnitude of landscape change is established by assessing the size or scale of change, the geographical extent of the area influenced and the duration and potential reversibility of the change.

Size and Scale of Change

The size and/or scale of change in the landscape takes into consideration the following factors:

- the extent/proportion of landscape elements lost or added; and/or
- the degree to which aesthetic/perceptual aspects are altered; and
- whether this is likely to change the key characteristics of the landscape.

The criteria used to assess the size and scale of landscape change are based upon the amount of change that will occur as a result of the proposed development, as described in Table A5 below.

Table A5: Magnitude of Landscape Change: Size/Scale of Change

Category	Description
Large level of landscape change	There would be a large level of change in landscape character, and especially to the key characteristics if, for example, the proposed development: • becomes a dominant feature in the landscape, changing the balance of landscape characteristics; and/or • would dominate important visual connections with other landscape types, where this is a key characteristic of the area.

Category	Description
Medium level of landscape change	There would be a medium level of change in landscape character, and especially to the key characteristics if, for example: • the proposed development would be more prominent but would not change the overall balance or composition of the landscape; and/or • key views to other landscape types may be interrupted intermittently by the proposed development, but these views would not be dominated by them.
Small level of landscape change	There would be a small level of change in landscape character, and especially to the key characteristics if, for example: • there would be no introduction of new elements into the landscape and the proposed development would not significantly change the composition/balance of the landscape.
Negligible/no level of landscape change	There would be a negligible or no level of change in landscape character, and especially to the key characteristics if, for example, the proposed development would be a small element and/or would be a considerable distance from the receptor.

Geographical Extent of Change

The geographical extent of landscape change is assessed by determining the area over which the changes will influence the landscape, as set out in Table A6. For example, this could be at the site level, in the immediate setting of the site, or over some or all of the landscape character types or areas affected.

Table A6: Magnitude of Landscape Change: Geographical Extent

Category	Description
Large extent of landscape change	Affects a wider area further from the site itself.
Medium extent of landscape change	Landscape change extends beyond the site boundaries
Small extent of landscape change	The change will affect a small geographical area. A localised change, often focused on the site itself.
Negligible extent of landscape change	Change affects only a very small geographical area

Duration and Reversibility of Change

The duration of the landscape change is categorised in Table A7 below, which considers whether the change will be permanent and irreversible or temporary and reversible.

Table A7: Magnitude of Landscape Change: Duration and Reversibility

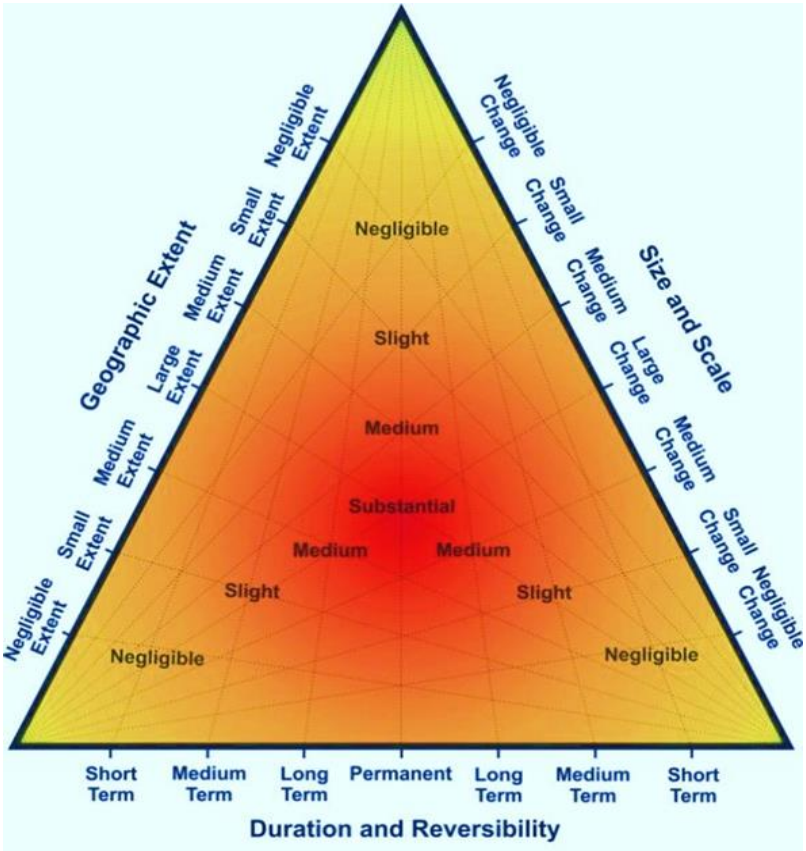
Category	Description
Permanent/Irreversible	Magnitude of change that will last for 25 years or more is deemed permanent or irreversible.

Category	Description
Long term reversible	Effects that are theoretically reversible but will endure for between 10 and 25 years.
Medium term reversible	Effects that are reversible and/or will last for between 5 and 10 years.
Temporary/Short term reversible	As above that are reversible and will last from 0 to 5 years - includes construction effects.

Deciding on Overall Magnitude of Landscape Change

The relationships between the three factors that contribute to assessment of the magnitude of landscape effects are illustrated graphically, as a guide, in Diagram A2 below. Various combinations are possible and the overall magnitude of each effect is judged on merit rather than by formulaic application of the relationships in the diagram.

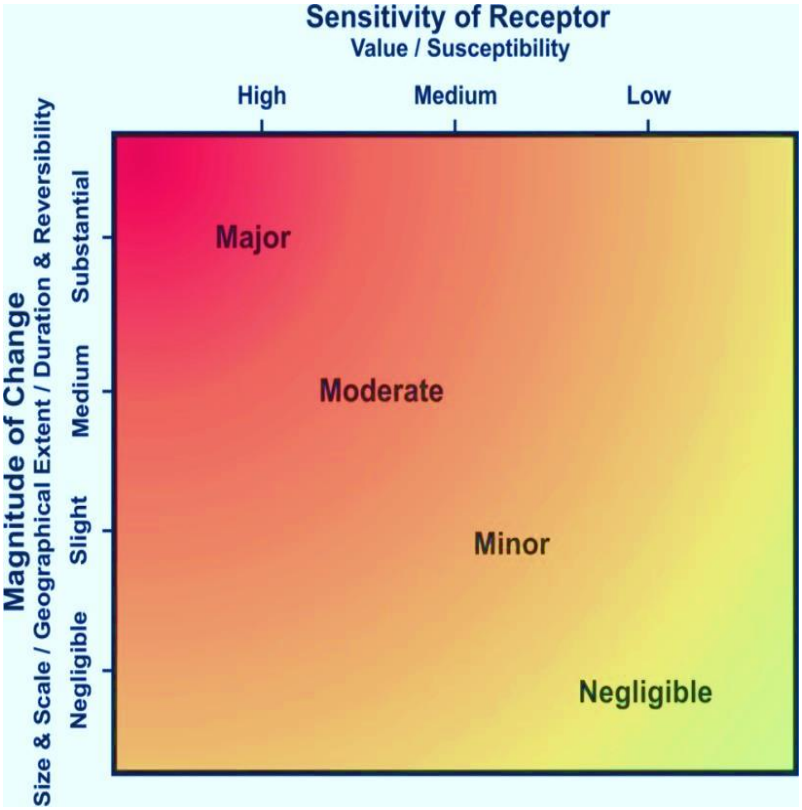
Diagram A2: Determining the magnitude of landscape change



Assessment of Landscape Effects

The assessment of overall landscape effects is defined in terms of the relationship between the sensitivity of the landscape receptors and the magnitude of the change. Diagram A3 summarises the nature of the relationship but it is not formulaic. Judgements are made about each landscape effect using this diagram as a guide.

Diagram A3: Assessment of Landscape Effects



Visual Effects

Visual effects are the effects of change and development on the views available to people and their visual amenity. Visual receptors are the people whose views may be affected by the proposed development. They generally include users of public rights of way or other recreational facilities or attractions; travellers who may pass through the study area because they are visiting, living or working there; residents living in the study area, either as individuals or, more often, as a community; and people at their place of work.

- Communities within settlements (i.e. towns, villages and hamlets);
- Residents of individual properties and clusters of properties;
- People using nationally designated or regionally promoted footpaths, cycle routes and bridleways and others using areas of Open Access Land agreed under the Countryside and Rights of Way Act 2000;
- Users of the local public Rights of Way network;
- Visitors at publicly accessible sites including, for example, gardens and designed landscapes, historic sites, and other visitor attractions or outdoor recreational facilities where the landscape or seascape is an important part of the experience;
- Users of outdoor sport and recreation facilities;
- Visitors staying at caravan parks or camp sites;
- Road users on recognised scenic or promoted tourist routes;
- Users of other roads;
- Rail passengers;

- People at their place of work.

Judging visual effects requires a methodical assessment of the sensitivity of the visual receptors to the proposed development and the magnitude of effect which would be experienced by each receptor.

Viewpoints are chosen, in discussion with the competent authority and other stakeholders and interested parties, for a variety of reasons but most commonly because they represent views experienced by relevant groups of people.

Visual Sensitivity

Sensitivity of visual receptors is assessed by combining an assessment of the susceptibility of visual receptors to the type of change which is proposed with the value attached to the views (GLVIA3, paragraph 6.30).

Value Attached to Views

Different levels of value are attached to the views experienced by particular groups of people at particular viewpoints. Assessment of value takes account of a number of factors, including:

- Recognition of the view through some form of planning designation or by its association with particular heritage assets; and
- The popularity of the viewpoint, in part denoted by its appearance in guidebooks, literature or art, or on tourist maps, by information from stakeholders and by the evidence of use including facilities provided for its enjoyment (seating, signage, parking places, etc.); and
- Other evidence of the value attached to views by people including consultation with local planning authorities and professional assessment of the quality of views.

The assessment of the value of views is summarised in Table A9 below. These criteria are provided for guidance only.

Table A9: Factors Considered in assessing the Value Attached to Views

Value	Criteria
High	Views from nationally (and in some cases internationally) known viewpoints, which: • have some form of planning designation; or • are associated with internationally or nationally designated landscapes or important heritage assets; or • are promoted in sources such as maps and tourist literature; or • are linked with important and popular visitor attractions where the view forms a recognised part of the visitor experience; or • have important cultural associations. Also may include views judged by assessors to be of high value.
Medium	Views from viewpoints of some importance at regional or local levels, which: • have some form of local planning designation associated with locally designated landscapes or areas of equivalent landscape quality; or • are promoted in local sources; or • are linked with locally important and popular visitor attractions where the view forms a recognised part of the visitor experience; or

Value	Criteria
	• have important local cultural associations. Also may include views judged by the assessors to be of medium value.
Low	Views from viewpoints which, although they may have value to local people: • have no formal planning status; or • are not associated with designated or otherwise high-quality landscapes; or • are not linked with popular visitor attractions; or • have no known cultural associations. Also may include views judged by the assessors to be of low value.

Susceptibility of Visual Receptors to Change

The susceptibility of different types of people to changes in views is mainly a function of:

- The occupation or activity of the viewer at a given viewpoint; and
- The extent to which the viewer's attention or interest be focussed on a particular view and the visual amenity experienced at a given view.

The susceptibility of different groups of viewers is assessed with reference to the guidance in Table A10 below. However, as noted in GLVIA3 "*this division is not black and white and in reality there will be a gradation in susceptibility to change*". Therefore the susceptibility of each group of people affected is considered for each project and assessments are included in the relevant text in the report.

Table A10: Visual Receptor Susceptibility to Change

Susceptibility	Criteria
High	Residents; People engaged in outdoor recreation where their attention is likely to be focused on the landscape and on particular views; Visitors to heritage assets or other attractions where views of the surroundings are an important part of the experience; Communities where views contribute to the landscape setting enjoyed by the residents.
Medium	Travellers on scenic routes where the attention of drivers and passengers is likely to be focused on the landscape and on particular views. People engaged in outdoor sport or recreation, which may involve appreciation of views e.g. users of golf courses.
Low	People engaged in outdoor sport or recreation, which does not involve appreciation of views; People at their place of work whose attention is focused on their work Travellers, where the view is incidental to the journey.

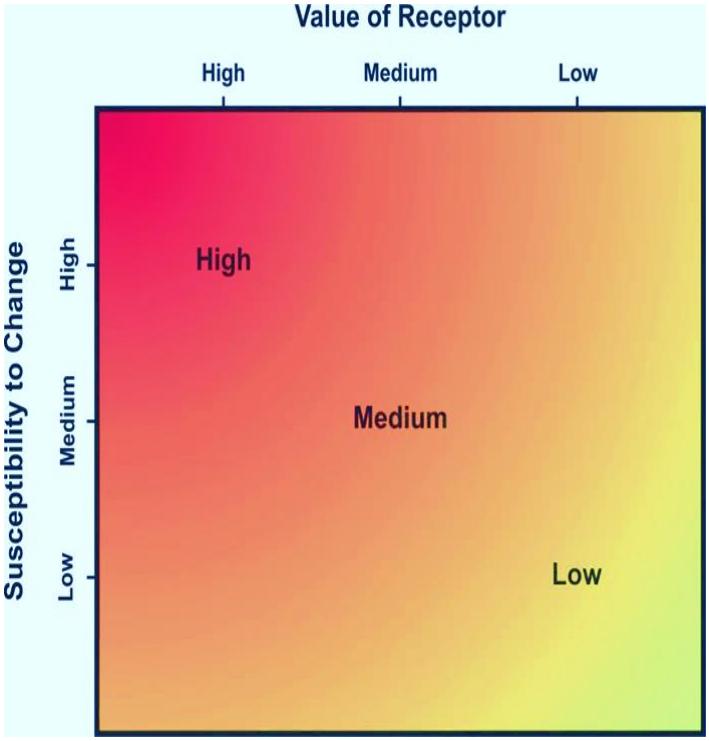
Defining Sensitivity

The sensitivity of visual receptors is defined in terms of the relationship between the value of views and the susceptibility of the different receptors to the proposed change. Diagram A4 summarises the nature of the relationship; it is not formulaic and only indicates general categories of sensitivity. Judgements are made on merit about each visual receptor, with the table below only serving as a guide. Table A11 sets down the main categories that may occur but again it is not comprehensive and other combinations may occur.

Table A11: Levels of Sensitivity defined by Value and Susceptibility of Visual Receptors

Sensitivity	Criteria
High	The visual receptor group is highly susceptible to changes in views and visual amenity and relevant views are of high value OR The visual receptor group has a medium level of susceptibility to changes in views and visual amenity and relevant views are of high value.
Medium	The visual receptor group is highly susceptible to changes in views and visual amenity and relevant views are of value at the medium level OR The visual receptor group is highly susceptible to changes in views and visual amenity and relevant views are of value at the low level OR The visual receptor group has a medium level of susceptibility to changes in views and visual amenity and relevant views are of value at the medium level OR The visual receptor group has a low level of susceptibility to changes in views and visual amenity and relevant views are of value at the high level.
Low	The visual receptor group has a medium level of susceptibility to changes in views and visual amenity and relevant views are of value at the low level OR The visual receptor group has a low level of susceptibility to changes in views and visual amenity and relevant views are of value at the medium level OR The visual receptor group has a low level of susceptibility to changes in views and visual amenity and relevant views are of value at the low level.

Diagram A4 Levels of Sensitivity Defined by Value and Susceptibility of Visual Receptor Groups



Magnitude of Visual Change

The magnitude of visual change is established by assessing the size or scale of change, the geographical extent of the area influenced and the duration and potential reversibility of the change.

Size and Scale of Change

The criteria used to assess the size and scale of visual change at each viewpoint are as follows:

- the scale of the change in the view with respect to the loss or addition of features in the view, changes in its composition, including the proportion of the view occupied by the proposed development and distance of view;
- the degree of contrast or integration of any new features or changes in the landscape with the existing or remaining landscape elements and characteristics in terms of factors such as form, scale and mass, line, height, colour and texture; and
- the nature of the view of the proposed development, for example whether views will be full, partial or glimpses or sequential views while passing through the landscape.

The above criteria are summarised in Table A12 below.

Table A12: Magnitude of Visual Change: Size/Scale of Change

Category	Criteria
Large visual change	The proposed development will cause a complete or large change in the view, resulting from the loss of important features in or the addition of significant new ones, to the extent that this will substantially alter the composition of the view and the visual amenity it offers.

Category	Criteria
Medium visual change	The proposed development will cause a clearly noticeable change in the view, resulting from the loss of features or the addition of new ones, to the extent that this will alter to a moderate degree the composition of the view and the visual amenity it offers. Views may be partial/intermittent.
Small visual change	The proposed development will cause a perceptible change in the view, resulting from the loss of features or the addition of new ones, to the extent that this will partially alter the composition of the view and the visual amenity it offers. Views may be partial only.
Negligible visual change	The proposed development will cause a barely perceptible change in the view, resulting from the loss of features or the addition of new ones, to the extent that this will barely alter the composition of the view and the visual amenity it offers. Views may be glimpsed only.
No change	The proposed development will cause no change to the view.

Geographical Extent of Change

The geographical extent of the visual change identified at representative viewpoints is assessed by reference to a combination of the Zone of Theoretical Visibility (ZTV), where this has been prepared, and field work, and consideration of the criteria in Table A13 below. Representative viewpoints are used as 'sample' points to assess the typical change experienced by different groups of visual receptors at different distances and directions from the proposed development. The geographical extent of the visual change is judged for each group of receptors: for example, people using a particular route or public amenity, drawing on the viewpoint assessments, plus information about the distribution of that particular group of people in the Study Area.

The following factors are considered for each representative viewpoint:

- the angle of view in relation to the main activity of the receptor;
- the distance of the viewpoint from the proposed development; and
- the extent of the area over which changes would be visible.

Thus, low levels of change identified at representative viewpoints may be extensive or limited in terms of the geographical area they are apparent from: for example, a view of the proposed development from elevated land may be widely visible from much or all of the accessible area, or may be confined to a small proportion of the area. Similarly, a view from a public footpath may be visible from a single isolated viewpoint, or over a prolonged stretch of the route. Community views may be experienced from a small number of dwellings, or affect numerous residential properties.

Table A13: Magnitude of Visual Change: Geographical Extent of Change

Category	Description
Large extent of visual change	The proposed development is seen by the group of receptors in many locations across the Study Area or from the majority of a linear route and/or by large numbers of viewers; or the effect on the specific view(s) is extensive.
Medium extent of visual change	The proposed development is seen by the group of receptors from a medium number of locations across the Study Area or from a medium part of a linear route and/or by a medium number of viewers; or the effect on the specific view is moderately extensive.

Category	Description
Small extent of visual change	The proposed development is seen by the group of receptors at a small number of locations across the Study Area or from only limited sections of a linear route and/or by a small number of viewers; or the effect on a specific view is small.
Negligible extent of visual change	The proposed development is either not visible in the Study Area or is seen by the receptor group at only one or two locations or from a very limited section of a linear route and/or by only a very small number of receptors; or the effect on the specific view is barely discernible.

Duration and Reversibility of Change

The duration of the visual change at viewpoints is categorised in Table A14 below, which considers whether views will be permanent and irreversible or temporary and reversible.

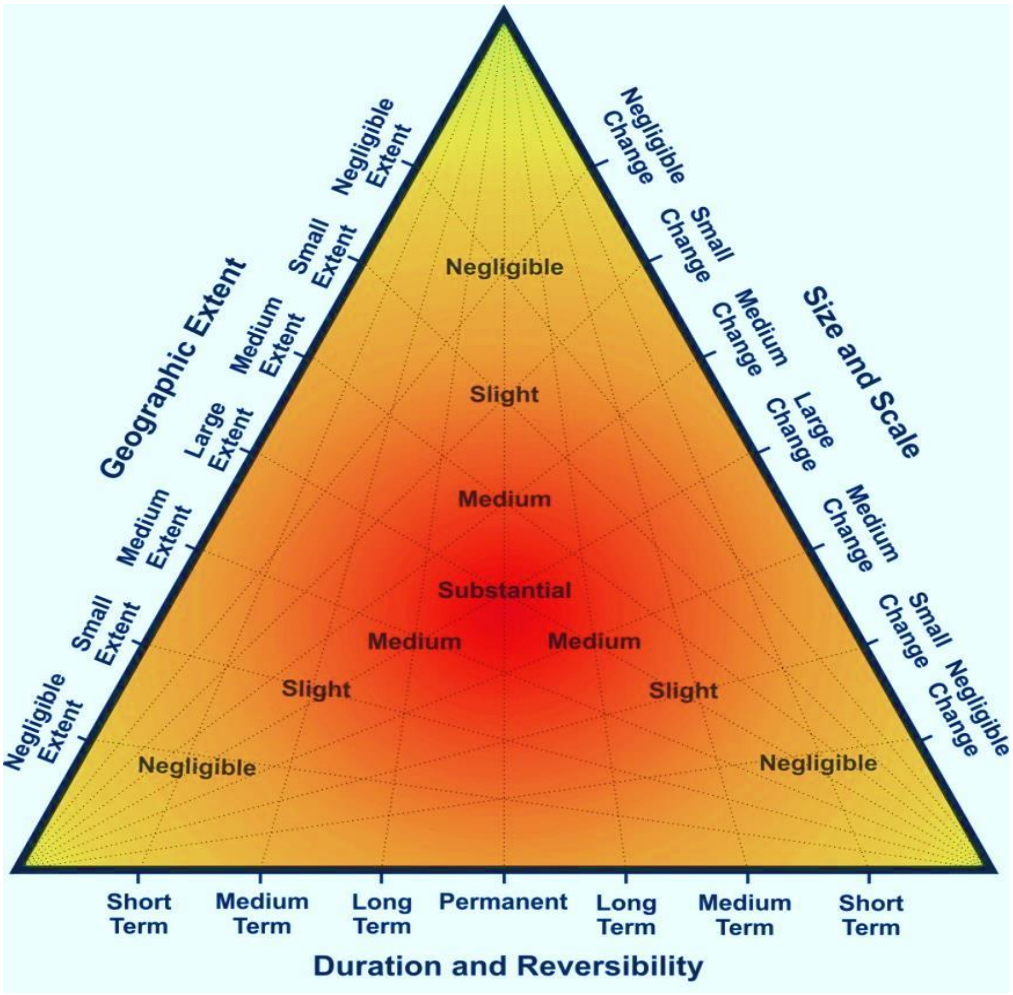
Table A14: Magnitude of Visual Change: Duration and Reversibility

Category	Description
Permanent/ Irreversible	Change that will last for over 25 years and is deemed irreversible.
Long term reversible	Change that will endure for between 10 and 25 years and is potentially, or theoretically reversible.
Medium term reversible	Change that will last for up to 10 years and is wholly or partially reversible.
Temporary/ Short term reversible	Change that will last from 0 to 5 years and is reversible - includes construction effects.

Deciding on Overall Magnitude of Visual Change

The relationships between the three factors that contribute to assessment of the magnitude of visual effects are illustrated graphically, as a guide, in Diagram A5, below. Various combinations are possible and the overall magnitude of each effect is judged on merit rather than by formulaic application of the relationships in the diagram.

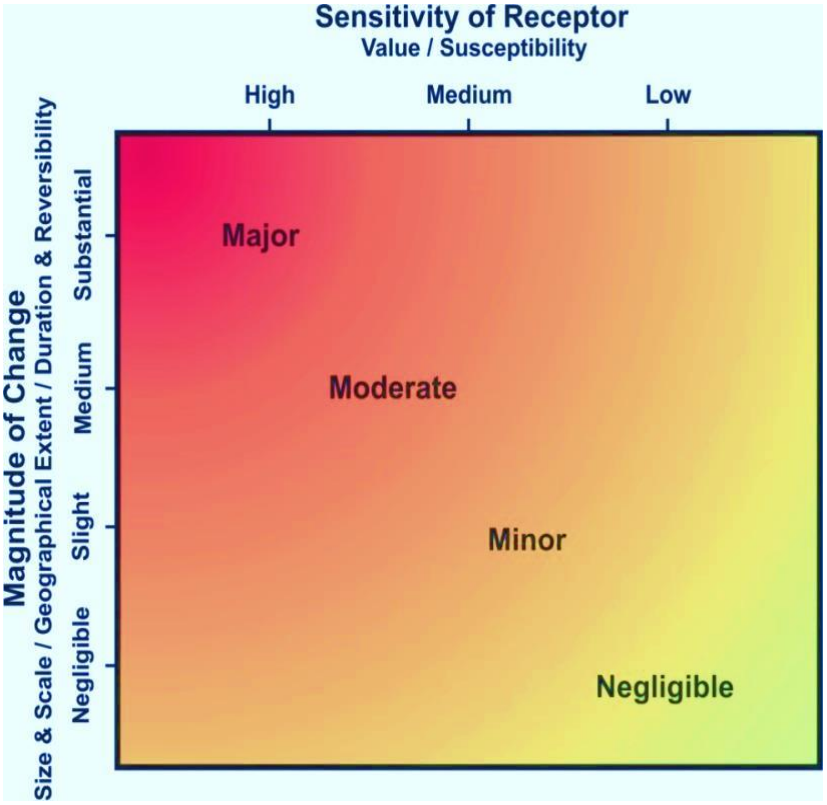
Diagram A5: Determining the magnitude of visual change

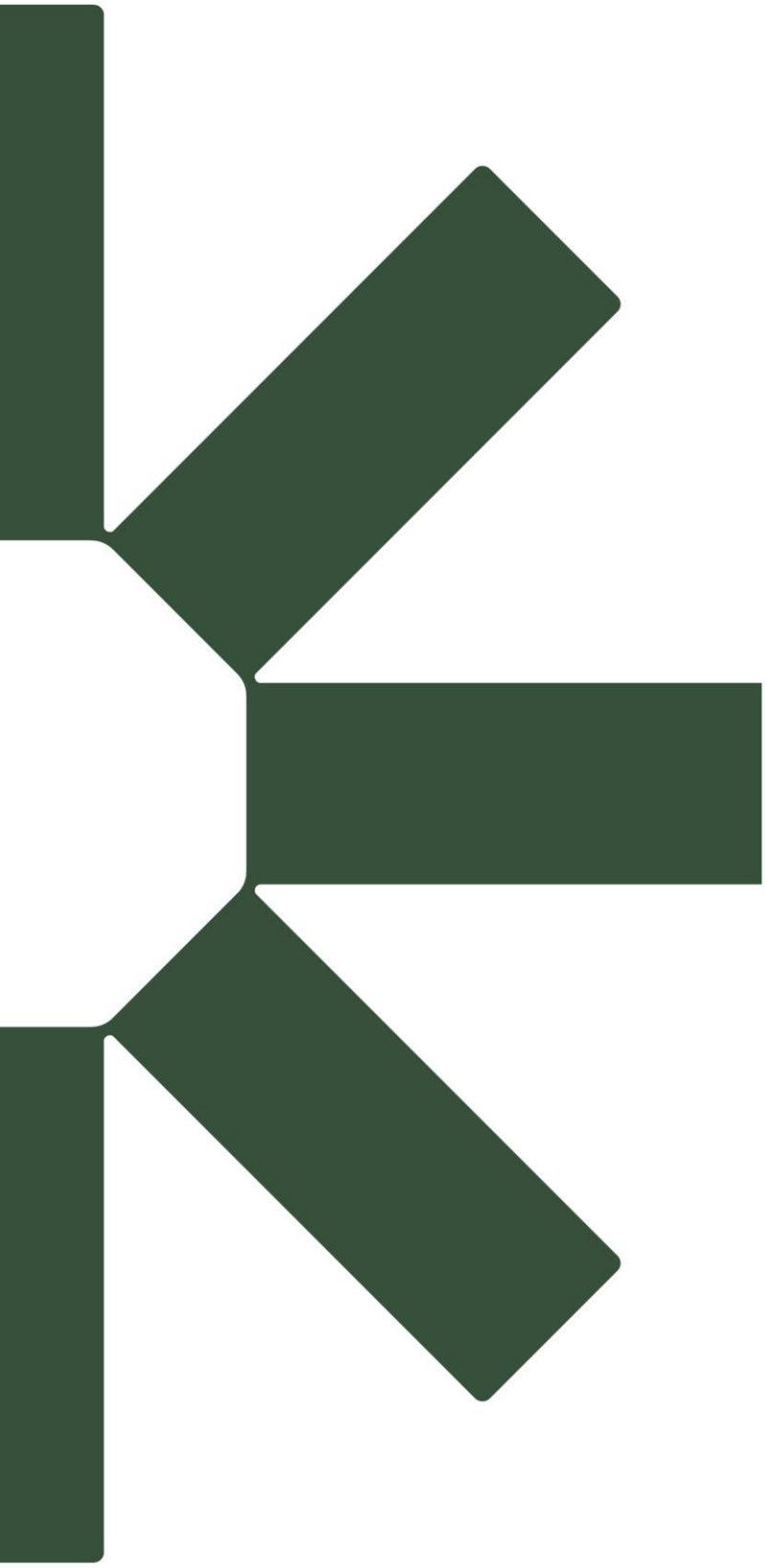


Assessment of Visual Effects

The assessment of visual effects is defined in terms of the relationship between the sensitivity of the visual receptors (value and susceptibility) and the magnitude of the change. The diagram below (Diagram A6) summarises the nature of the relationship but it is not formulaic and only indicates broad levels of effect. Judgements are made about each visual effect using this diagram as a guide.

Diagram A6: Assessment of Visual Effects





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