# Appendix D

Landscape Susceptibility Appraisal

February 2026

# Longcroft Wind Farm Connection Project

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# 1 Introduction

1.1 This appendix outlines the approach taken to consider landscape susceptibility as part of the Longcroft Connection Project. Together with other environmental and technical considerations, landscape susceptibility is one of the factors which help inform the selection of a preferred route.

1.2 NatureScot[1] defines landscape susceptibility as '*the degree to which a defined landscape, including its character and associated visual resources, might respond to specified development types or land management changes without undue negative consequences'*.

1.3 Landscapes which are highly susceptible to certain types of development risk, having their key characteristics fundamentally altered, resulting in a changed landscape character. Assessing a landscape's susceptibility to wood pole overhead lines helps guide route selection, avoiding the most vulnerable areas and minimising adverse effects.

1.4 A finding of 'high' susceptibility does not necessarily preclude development, just as 'low' susceptibility does not guarantee suitability for development. Instead, the appraisal serves as an additional factor to guide the routeing process

1.5 Landscape susceptibility should never be used in isolation to determine the acceptability of a development type in landscape terms and does not replace the need for landscape and visual impact assessment, which is used to assess the likely landscape and visual effects of a development proposal.

## The Proposed Development

1.6 As explained in Chapter 2 of the RCD, the Longcroft Connection Project comprises a new single circuit 132 kilovolt (kV) overhead line carried on wood pole support structures from the proposed Glenburnie Wind Farm Substation to the proposed Torfichen Cable Sealing End Compound (referred to as the 'Torfichen CSEC'). The new overhead line (referred to as 'the new OHL') will operate at 132kV and be supported on Trident wood pole structures, with potential heights ranging between 11 metres (m) to 16m high. The typical span length between poles will be around 80m to 100m, with the total route extending approximately 7.5 kilometres (km).

1.7 The wood pole support structures will be of the 'Trident' design. These are the shortest and simplest of the wood pole designs used by SPT. They are easily obscured by trees and less noticeable in the landscape than heavier wood pole designs or steel lattice towers. Their flexibility enables more effective routeing around obstacles, improving landscape integration.

1.8 Beyond the temporary construction phase, landscape-related effects mainly arise from the presence of the proposed wood poles. It is therefore these wood poles which have been used as the determining factor in considering landscape susceptibility.

1.9 Wood poles are dark brown when first erected and weather to a light silver grey after about five years.

1.10 Experience on similar projects has shown that wood pole support structures are generally just perceptible up to a distance of 5-6km when seen against the sky, but typically not noticeable beyond 1.5km if landform and/or vegetation provide an effective background.

## Landscape Character

1.11 A landscape character assessment provides the foundation for evaluating how susceptible a landscape may be to a proposed development. Every landscape is shaped by a combination of

[1] NatureScot (2022) Landscape Sensitivity Assessment Guidance. Available at: https://www.nature.scot/doc/landscape-sensitivity-assessment-guidance-methodology [Accessed 13 November 2025]

natural elements, such as geology, soils, and watercourses, and human influences, including settlement patterns and land use, alongside cultural perceptions, such as historical associations, social meaning, and aesthetic values. The assessment process analyses how these factors interact to create the distinctive landscapes we see and experience. This is achieved by mapping and describing landscape character types (LCTs), which are generic and can occur in multiple locations, and landscape character areas (LCAs), which are unique to specific places.

1.12 NatureScot[2] has produced a digital map-based national landscape character assessment (published in 2019), showing LCTs or areas of consistent and recognisable landscape character across Scotland.

1.13 These LCTs formed the basis for this landscape susceptibility appraisal. Site visits were undertaken to confirm the descriptions of the assessments, note the current condition of the landscape and develop a finer-grained understanding of the landscape and its perceptual qualities to help further inform the routeing and appraisal process.

1.14 The three LCT across the Study Area for the proposed development are shown in Appendix B, Figure 6 of the RCD and listed below. An overview of their key characteristics based on the descriptions on NatureScot's website is provided later in this document.

**LCT 90** - Dissected Plateau Moorland
**LCT 91** - Plateau Grassland – Borders
**LCT 115** - Upland Valley with Mixed Farmland

[2] NatureScot (Updated 2023) Scottish Landscape Character Types Map and Descriptions. Available at https://www.nature.scot/professional-advice/landscape/landscape-character-assessment [Accessed 13 August 2025]

# 2 Appraising Landscape Susceptibility

2.1 Each LCT potentially affected by a route option has been evaluated (using desk-based analysis combined with on-site assessment and verification) and then categorised as having higher or lower susceptibility to the new OHL. This is a relative grading reflecting the variations in landscape across the Study Area.

2.2 The criteria used to assess the relative levels of landscape susceptibility of the LCT to accommodate wood pole line development are shown in **Table 1**. These criteria are closely linked to guidance in the Holford Rules and relate to the scope for a landscape to assimilate the new OHL and reduce the number of line diversions, thereby avoiding woodland clearance or tree felling.

2.3 The criteria are often multi-faceted and interlinked, as evidenced by the accompanying descriptions.

**Table 1:** Indicators of Landscape Susceptibility to Wood Pole Overhead Lines

| Criteria | Indicators used to Inform Judgements on Landscape Susceptibility |
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| **Landscape scale** | The scale of a landscape reflects how its landform is perceived, taking into account relief, expanse, and elevation. Openness, individual elements, and land use patterns also influence this perception. Assessing landform scale involves evaluating the perceived vertical height, horizontal extent, and the sense of openness or containment shaped by topography and elevation.<br>The land-use pattern creates an additional layer of possible enclosure, which might reduce openness, for example, as woodland, hedges, and field walls provide containment. Conversely, low-growing vegetation, such as moorland, can reinforce openness.<br>Individual elements and features can provide reference points against which the landscape scale or size of other landscape elements or features are perceived and understood.<br>Wood poles are small enough to be placed close to buildings and trees. Although they may be slightly larger than these features, they are unlikely to appear significantly taller when viewed within the wider landscape context.<br>Landscapes with hedgerows, hedgerow trees, small fields, and winding roads are well-suited to accommodating wood pole lines. They can also fit within larger-scale landscapes, but their placement near taller structures, such as wind turbines or steel lattice tower lines, must be carefully considered. |
| **Prominent Landscape Features** | Landscapes with strong visual features or focal points, such as distinctive landforms, hilltop settlements, monuments, or church spires, are more sensitive to the introduction of wood poles, as the infrastructure may detract from or compete with these defining elements. Similarly, landscapes with simple, uninterrupted skylines are more vulnerable, as poles can break the horizon and disrupt visual cohesion, particularly where several poles appear clustered together. By contrast, in landscapes with more visually complex or already interrupted skylines, wood poles may be more readily absorbed. Even so, care is required to avoid creating visual clutter or conflict with prominent features that contribute to the landscape's character or identity. |
| **Landform shape** | Positioning wood pole lines along the sides of ridges and low hills, rather than at summits or prominent high points, helps minimise visual impact by partially screening the poles from viewpoints on the sheltered side of the hills or slopes.<br>Better landscape integration can be achieved by maintaining a consistent elevation, especially when aligning with existing features such as farms and settlements. These often follow natural slope breaks and the boundary between semi-improved fields and the open uplands. |

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| | Conversely, wood pole lines tend to be more prominent when routed across the contours of steep, elevated landforms, across exposed skylines and ridges, or open upland landscapes. |
| **Settlement and land use pattern and complexity** | Owing to their relatively small size, wood pole lines can often be readily integrated into settled or structured landscapes, where their height and form align with existing elements such as trees, buildings, hedgerows, and minor roads, and the poles can be hidden or partly concealed by low ridges and rolling landforms. Tree cover, including policy woodlands, field trees, and the hedgerow network, also helps restrict visibility. In these contexts, wood poles can visually connect with the established landscape pattern and achieve a better 'fit.'<br>Wood pole lines can appear more prominent in simple, expansive landscapes with uniform cover and sweeping lines, where there are fewer features that reduce their visibility.<br>Settlement distribution also directly influences routeing, particularly in relation to Holford Rule 3. A densely settled area may offer more opportunities for screening, but it can also require more directional changes, complicating the ability to maintain a direct alignment. In contrast, concentrated settlements tend to be easier to plan around than widely dispersed development.<br>While screening wood poles is beneficial, careful routeing and micrositing in relation to landform, settlement patterns, and other landscape features are even more critical. Minimising the number of visible poles in any given area can help reduce cumulative visual impacts. Wood pole lines should also be routed to avoid sensitive views, particularly those containing prominent or distinctive focal features, such as church spires, historic landmarks, or notable landforms, where their presence could detract from key visual compositions. |
| | The degree of human influence, through settlement, land use, or infrastructure, also shapes a landscape's susceptibility to wood pole lines. Landscapes with a strong commercial or industrial influence, such as forestry, intensive farming, quarrying, or existing utility infrastructure, are generally less sensitive, as their functional character is already defined by human activity. Similarly, modern landscapes containing frequent man-made elements, roads, railways, wind turbines, or a dense settlement pattern, are typically more capable of accommodating wood poles.<br>By contrast, traditional rural or historic farmed landscapes are more vulnerable, as wood poles may appear inconsistent with their finer-grained patterns and risk diminishing rural character and perceived time-depth.<br>However, even in more developed settings, the concentration of multiple vertical elements can create visual clutter or 'wirescape' effects, reducing coherence and intensifying overall impact. |
| **Perceptual aspects, including scenic quality** | Landscapes that offer opportunities to experience scenic beauty, defined by a sense of wildness, remoteness, tranquillity, and minimal human influence, tend to be more sensitive to the introduction of wood pole overhead lines. The absence of prominent man-made structures and a prevailing sense of openness and naturalness heighten their vulnerability to visual intrusion. In contrast, landscapes that lack these qualities are generally less affected by such infrastructure. |

2.4 The Scottish Borders Council's Renewable Energy Supplementary Planning Guidance (SPG) was initially approved as Supplementary Guidance (SG) in 2018 for the now-superseded Local Development Plan. The guidance became SPG following the adoption of the Scottish Borders Local Development Plan (LDP2)[3] on 22 August 2024. Accordingly, it no longer holds development plan status. The SPG incorporates the Ironside Farrar '*Update of Wind Energy*

[3] Scottish Borders Council (2024) Adopted LDP2 - Volume 1 and Volume 2. Available at: https://www.scotborders.gov.uk/plans-guidance/local-development-plan [Accessed 13 August 2025]

*Landscape Capacity and Cumulative Impact Study'* [4] which was published in 2016 (2016 study). It assesses landscape capacity for wind turbines of various sizes, including 15-35m turbines, which at the lower end of the range are similar in height to wood poles. However, as the national policy context has changed, some aspects are now outdated, particularly where inconsistencies arise with the National Planning Framework 4 and the 2024 Local Development Plan.

2.5 While turbines and wood poles are not directly comparable, the SPG provides a means of comparing local conditions (observed on-site for this appraisal of landscape susceptibility) with static vertical structures similar to the smaller wind turbines.

2.6 **Table 2** below describes the three LCTs defined by NatureScot, focusing on the particular characteristics of those parts of the LCTs within the Study Area. The descriptions and accompanying judgements on susceptibility have been informed by desk study, field survey, and consideration of the criteria in **Table 1**.

2.7 The judgements on susceptibility include reference to the SPG discussed above. Although the names of the LCT described in these studies are often different to those in NatureScot's 2019 Landscape Character Type Map, their boundaries are broadly equivalent.

**Table 2**: Susceptibility of Local Landscape Character Types within the Study Area

| **LCT 90 - Dissected Plateau Moorland** | |
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| **Overview of landscape character** | This LCT covers the eastern part of the Study Area and forms part of the Lammermuir Plateau, which lies between 150 and 250m above ordnance datum (AOD). It is a landscape of broad sweeping ridges, occasionally higher, more defined hills and a few small-scale landform features. The simple landcover is dominated by grass and heather moorland with some improved pasture and geometric coniferous plantations on the outer hill slopes. Much of the heather moorland is managed for grouse, giving a distinctive patchwork of muirburn, punctuated in places by hill tracks and shooting butts. The landscape is sparsely settled, with few roads, but it forms an important backdrop to the more settled lowlands, including the Leader Valley. Wind turbines are visible from the LCT to the northwest, with Fallago Rig Wind Farm and its associated 400kV overhead line prominent in views across the open plateau to the north.<br>As shown in Appendix B, Figure 6 of the RCD. The landscape forms part of the Lammermuir Hills Special Landscape Area (SLA) in recognition of its local landscape value.<br>The key characteristics of the landscape are described on the NatureScot's website as:<br>• *'Plateau landform consisting of a series of level-topped hills and ridges.*<br>• *Strong topographic identity and overall grandeur of scale.*<br>• *Individual hill masses separated by steep-sided valley features of differing scales.*<br>• *Semi-natural peatland, heather moorland and grassland communities dominant, with a high degree of perceived naturalness of vegetation cover.*<br>• *Very low settlement density with isolated, dispersed pattern.*<br>• *Scattered prehistoric settlement and burial mounds above watercourses.*<br>• *Sense of wildness created by wide horizons and long distance, unobstructed views'.*<br>During the site survey, it was noted that the part of this LCT within the Study Area matches well with the key characteristics described above. However, the prominent Fallago Ridge Wind Farm and associated 400kV steel lattice tower detract from the qualities of wild character and remoteness. |

[4] Ironside Farrar (2016) Update of Wind Energy Landscape Capacity and Cumulative Impact Study. Available at: https://www.scotborders.gov.uk/downloads/download/659/draft_renewable_energy_supplementary_guidance [Accessed 13 August 2025]

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| **Susceptibility of the landscape to smaller turbines (<35m)** | Table 6(ii) of the 2016 study (*Dissected Plateau Moorland 1 (iii) Lammermuir Hills*) explains that smaller turbines would have cumulative effects with existing and consented wind farm developments on the plateau top of the Lammermuir Hills but that there may be some limited scope to site them at the transition of the plateau with the rolling farmland or in the valleys alongside farmsteads and dwellings. |
| **Considerations informing the judgement on susceptibility (based on the capacity studies, site survey and the criteria listed in Table 1).** | The expansive, open plateau and its far-reaching, unobstructed views, often extending across lower valley landscapes and adjacent LCTs, offer limited opportunities to screen or blend the new OHL into the landscape. The new OHL might appear out of proportion in this large-scale setting.<br>To mitigate this, the length of the line across the open plateau should be minimised, instead following the plateau's edge where it transitions into the upper reaches of the tributary valleys of Leader Water. This transitional zone features more intricate landforms with smaller-scale visual elements, including dispersed farmsteads, woodlands, and trees, offering greater potential for landscape integration. This area, particularly the valleys of the Kelphope Burn and the Cleekhimin Burn, is rich in archaeological heritage. Careful routeing is essential to prevent adverse impacts on these features and their settings. A new wood pole line could also diminish the sense of seclusion and remoteness that remains in the more visually contained peripheral areas.<br>Sensitive routeing is necessary to avoid adverse effects on views from localised hilltops, dispersed properties, and minor roads within this LCT. |
| **Summary** | Based on the above considerations, this remote upland landscape, with its wide-ranging and unobstructed views, offers few opportunities for screening or backgrounding. This indicates a higher susceptibility to the proposed wood pole line development. The SLA designation reinforces this judgment. |
| **LCT 91 - Plateau Grassland - Borders** | |
| **Overview of landscape character** | This LCT occurs in the western part of the Study Area, where it forms part of an upland plateau landscape of typically dome-shaped hills with convex slopes covered by coarse acid grassland and small remnants of heather moorland on the higher ground. Narrow gullies eroded by minor burns create subtle variations in relief. Although a large-scale landscape, it is lower and smaller in extent than the *Dissected Plateau Moorland LCT*.<br>The key characteristics of the landscape are described on the NatureScot's website as:<br>• *'Large scale, rolling plateau topography with gentle slopes and smooth relief.*<br>• *Vegetation cover dominated by coarse grassland with localised patches of heather moorland, rush pasture and scattered small coniferous plantations and shelterbelts.*<br>• *Low density settlement with widely dispersed farm buildings.*<br>• *Wind farm development in the northern and central parts of the Landscape Character Type.*<br>• *Remote, isolated quality.*<br>• *Open, panoramic views'.*<br>During the site survey, it was noted that the part of the LCT within the Study Area closely matches the key characteristics described above. However, in addition to views of wind farms, the existing steel lattice towers that cross the edge of this LCT and the adjoining *Upland Valley with Mixed Farmland LCT* influence easterly views. |
| **Susceptibility of the landscape to smaller turbines (<35m)** | Table 6(ii) of the 2016 guidance (*Plateau Grassland 2 Lauder Common*) explains that the landscape has some capacity for individual or groups of up to three smaller-sized turbines if associated with the farmsteads and enclosed fields. The guidance also notes that cumulative considerations also apply, and smaller turbines should be located away from areas with larger turbines. |
| **Considerations informing the judgement on** | The plateau top is an open, large-scale, and exposed landscape, characterised by distant, panoramic views that extend across adjoining LCTs. The new OHL will |

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| **susceptibility (based on the capacity studies, site survey and the criteria listed in Table 1).** | appear out of scale and visually prominent in this expansive setting with a uniform land cover unless sited close to the scattered small coniferous plantations and shelterbelts, often enclosed by drystone dykes which provide ready scale references and increase the ability of the landscape to absorb or diminish the effects of the new OHL. The new OHL could compromise any sense of seclusion and remoteness that may still be experienced within the valleys and more visually contained areas.<br>The settlement pattern consists of widely dispersed farm buildings, typically situated in sheltered valleys or along the periphery of the LCT, often accompanied by small shelterbelts. Farm tracks and minor roads link these settlements. The absence of enclosure along many road edges enhances the landscape's openness, making it more vulnerable to the visual impact of the new OHL.<br>The infrequency of field boundaries, combined with the large-scale landform and relatively uniform land cover, contributes to a sense of remoteness. However, existing wind farms and steel lattice tower lines have already reduced the perception of wildness across the open plateau. To prevent further visual clutter and landscape fragmentation, the relationship between the wood poles of the new OHL, the steel lattice tower lines, and nearby wind farm developments in the adjoining uplands must be carefully managed to minimise cumulative landscape impacts.<br>The plateau has evidence of prehistoric settlements, which can be found on the high ground above the water courses. Scattered prehistoric burial cairns are also present, and the integrity of the setting of these archaeological sites, many of which are inter-visible, is an additional susceptibility. |
| **Summary** | Based on the above considerations, away from the larger-scale, more expensive parts of the plateau, this landscape has a medium susceptibility to the proposed wood pole line development. |
| **LCT 115 - Upland Valley with Mixed Farmland** | |
| **Overview of landscape character** | Within the Study Area, this LCT covers the valley of Leader Water and the tributary valleys of the Hillhouse Burn, the Kelphope Burn and the Cleekhimin Burn. The landscape is characterised by the flat, well-defined valley floor, evenly sloping valley sides and a mix of arable fields and pastures. To the south of the Study Area is the ancient burgh of Lauder and the Garden and Designed Landscape at Thirlestane Castle. The eastern part of the LCT is included in the Lammermuir Hills SLA in recognition of its local landscape value.<br>The key characteristics of the landscape are described on the NatureScot's website as:<br>• *'Broad flat valley floor with distinct floodplain and meandering river channel.*<br>• *Evenly sloping valley sides.*<br>• *Rich red soils derived from Old Red Sandstone parent materials.*<br>• *Land cover dominated by arable and improved pasture land, with medium to large sized fields.*<br>• *Valley bottom and lower valley sides well-treed, with hedgerows, hedgerow trees, small woodlands and coniferous plantations all locally prominent.*<br>• *Significant designed landscapes in each valley.*<br>• *Unity of vernacular architecture utilising local red sandstone and whinstone'.*<br>During the site surveys, it was noted that the part of this LCT within the Study Area matches well with the key characteristics described above. Discordant features include the busy A68 and A697, and the two existing 132kV steel lattice tower lines, which run along the western valley side and cross the western edge of the LCT at several points. Wood pole lines are associated with the settlements. |
| **Susceptibility of the landscape to smaller turbines (<35m)** | Table 6(ii) of the 2016 study (*Upland Valley with Farmland 24 (i) Upper Leader)* explains that the central, less prominent part of the LCT has some capacity for individual or groups of up to three smaller-sized turbines. It notes that these will be |

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| | better accommodated if the turbines are visually associated with agricultural patterns, farmsteads, individual properties, or existing settlements. |
| **Considerations informing the judgement on susceptibility (based on the capacity studies, site survey and the criteria listed in Table 1).** | Although in places there are long open views contained only by the lower valley sides or the surrounding uplands, localised variations in landform combined with a strong network of hedgerows and frequent hedgerow trees, small woodland blocks, and some large coniferous plantations create intermediate visual horizons and afford good screening or backgrounding opportunities.<br>This is a well-established landscape, where it is important to minimise any adverse impacts on the setting of individual buildings, clusters of buildings, and the wider settlement of Oxton. Scattered farmsteads and dwellings are distributed across the valley floor and lower slopes, while larger groups of buildings are typically located at road junctions and river crossings. In these areas, the route may need to be adjusted to avoid visual intrusion and preserve the landscape's character.<br>Additionally, the relationship between the wood poles of the new OHL, existing steel lattice tower lines on the western valley side, and nearby wind farm developments in the adjoining uplands must be carefully managed to avoid cumulative visual impacts on the landscape. The presence of settlements, overhead lines, roads, and well-managed farmland diminishes the sense of wildness, reducing the landscape's susceptibility to change in key perceptual qualities such as tranquillity and seclusion.<br>Upper Lauderdale is particularly rich in archaeological remains - notably Iron Age settlements sited on the hill promontories overlooking the valleys. The sinuous field patterns of medieval settlement and agriculture are also preserved in places. The the new OHL must be carefully sited to avoid disturbing or fragmenting these archaeological features and their settings. |
| **Summary** | Based on the above considerations, although this LCT has several key susceptibilities, this landscape with its settlement, varied landcover pattern and perceived human influences, is of medium susceptibility to the proposed wood pole line development. |