

## 6.0 ASSESSMENT OF LANDSCAPE CAPACITY AND CUMULATIVE CHANGE

### 6.1 Assessment Purpose and Process

The purpose of the following assessment is to determine the capacity of the Scottish Borders landscape to accommodate wind turbine development and to determine what levels of cumulative development could be considered acceptable across Scottish Borders. The assessment also takes into account the level of cumulative development that already exists within and around Scottish Borders and is based on the premise that current renewable energy policies have and will lead to an inevitable level of landscape change within Scottish Borders. SPP highlights that cumulative impacts may present a limit to the extent of onshore wind development and that there is a need to consider cumulative impacts in the decision making process.

This capacity assessment resolves landscape capacity with levels of cumulative development and involves three stages:

- 1) Firstly, identifying the *underlying* capacity of the Scottish Borders landscape to accommodate wind turbine development;
- 2) Secondly, assessing the degree of cumulative change resulting from operating and consented wind turbines in the study area and in specific areas of Scottish Borders;
- 3) Thirdly, assessing the level of further development that could acceptably be accommodated within areas of Scottish Borders thereby identifying *remaining* capacity.

An assessment methodology is given in chapter 2.0 and further detailed in **Appendix 2**. The conclusion of the assessment is set out in **Table 6.1(i)-(vi)** and illustrated in **Figures 6.1 to 6.4**, which show landscape capacity, landscape typology and opportunities and constraints for wind energy development.

The assessment of landscape capacity and cumulative landscape change is based on the 30 Scottish Borders landscape character types (LCTs) in the *Borders Landscape Character Assessment*. These are divided into further landscape character areas (LCAs). The location and extent of each LCT and the component LCAs is illustrated in maps in the following pages.

Detailed assessment of the sensitivity and value of each landscape character type is shown in a tabulated form in **Appendix 6** and summarised in left hand columns of Tables 6.1(i)-(vi) which are interleaved with the relevant LCT maps. This information is used to determine the capacity for accepting different turbine sizes, detailed in Table 6.1(i)-(vi) and as maps in Figures 6.1a – e. The maps are indicative, showing geographical location of each LCT/LCA and *overall* rating of capacity for a particular turbine size based on the assessed sensitivities. Capacity will vary across each of the areas and reference should be made to the detailed assessment and guidance in Table 6.1

This assessment accounts for the great range of turbine sizes and variations between areas of the same landscape character type as well as the underlying and remaining capacities. This is discussed further in 6.2.4 below.

An assessment is then made of the current level of cumulative change based on the distribution of operational and consented onshore wind energy developments, as listed in Table 5.1 and illustrated in Figures 5.1 and 5.2. The landscape character types are shown indicatively in Figure 6.2 as a map of areas of current wind turbine landscape typologies (based on types detailed in Table 2.2 of this report).

The proposed acceptable landscape capacity for development is detailed in Table 6.1 and illustrated indicatively in Figure 6.3 as a map of areas of proposed wind turbine landscape typologies (incorporating the current typologies illustrated in Figure 6.2).

Guidance on wind turbine sizes, numbers and distribution is given in the right hand side of Table 6.1(i)-(vi) for managing development to the appropriate level within each landscape type. Analysis of landscape and comments on landscape capacity are detailed in the right hand column.

This assessment is carried out for each of the 30 LCTs in Scottish Borders. Many of the LCTs appear as LCAs more than once across the following six main regional landscape areas of Scottish Borders:

- i. Midland Valley;
- ii. Lammermuir and Moorfoot Hills;
- iii. Central Southern Uplands.
- iv. Cheviot Hills;
- v. Tweed Lowlands;
- vi. Coastal Zone;

The LCTs and component LCAs are grouped into each regional area in which they appear and each LCA is given a separate assessment. Table 6.1 is split into the six regional groupings. This is followed in 6.3 by overall assessments of capacity and cumulative effects for each regional landscape area.

**The assessment concludes with a summary for the whole local authority area (refer to section 6.4). Spatial guidance regarding areas with residual capacity for further development (refer to section 6.5) are given at the end of this chapter and schematically illustrated in Figure 6.4.**

### 6.2 Guidance

Table 6.1 also gives guidance on turbine sizes, cluster sizes and separation between groups of turbines for each landscape type that would limit cumulative development to the proposed acceptable level. This relates to turbines of 15m to blade tip and greater (refer to Table 5.2). Further detail, with location maps for individual landscape character areas, is provided within Table 6.1. As highlighted in section 2.7 guidance on small turbines, below 15m to blade tip, applies at a local level.

Appendix 4 of this report contains detailed discussion of how turbine size, group size and group separation affects perceptions of wind energy and landscape character. Further guidance is given in SNH's *Siting and Designing Windfarms* publication. The following briefly outlines the main considerations in developing the specific guidance for this assessment given in Table 6.1.

### 6.2.1 Turbine Size

The height of turbines which can be accommodated within a particular landscape is influenced by its scale and openness. Landscape scale varies with the presence or absence of detailed features such as buildings, trees, walls and hedgerows which can provide a visual reference point to compare turbines with. In general, the larger the scale of the landscape and the more open and simple the landscape, the greater the ability to relate to larger development typologies.

Smaller size turbines are generally more suitably located in smaller scale landscapes with more complex patterns and smaller scale reference features. They may also be accommodated in the lower edges of large scale landscape types, although their proximity to larger size turbines within these areas would need to be carefully controlled and large groups of such turbines would not be appropriate.

The largest scale upland landscapes in Scottish Borders are extensive and many already accommodate extensive developments with larger scale turbines.

### 6.2.2 Turbine Group Size

Turbine group sizes relate to scale and complexity of the landscape, particularly to landform and pattern. In general, larger scale more simple landscapes with gentle landforms and simpler patterns can accommodate larger groups of turbines, subject to having the physical capacity (i.e. available area). In the case of Scottish Borders, there are some extensive areas with large scale and simple landform and pattern, comparable to the large scale uplands found elsewhere in Scotland, which accommodate the largest windfarms. However, there are also smaller isolated areas of upland of restricted extent and diverse river valley and lowland landscapes of generally small and intimate scale with very limited capacity for development of only smaller turbines, or sometimes none at all.

### 6.2.3 Separation between Turbine Groups

Turbine size and group size can be generically related to landscape character when applied to a single turbine or windfarm, or across a number of windfarms. However, separation between groups of turbines is the single most important factor in controlling cumulative effects. This is because of the high prominence and extensive visibility of most turbines, leading to effects on landscape character well beyond the turbines and between individual schemes, as discussed in detail in Appendix 4.

The guidance in Table 6.1 therefore gives approximate separation distances that should be applied between turbine groupings (including single turbines) in order to achieve the planned wind turbine landscape types as described in Table 2.2. Existing and proposed distribution of landscape types are shown in Figure 6.3.

The main factors controlling the proposed separation distance relate to the proposed wind turbine landscape type, turbine size, turbine group size and the character of the host landscape:

- 1) Proposed Turbine Landscape Typology: each proposed typology detailed in Table 2.2 requires a different separation distance between turbines or schemes to achieve the landscape and visual criteria described.
- 2) Turbine Size: due to their lesser prominence and visibility, smaller turbines would require closer spacing than larger turbines to achieve the defined landscape typology.
- 3) Group Size: smaller groups of turbines would be less dominant and require closer spacing to achieve the same landscape typology than would larger groups of the same size of turbine.
- 4) Underlying landscape character type: this has an effect on all the above criteria. More open, flatter landscapes are more easily affected by intervisibility of turbines and are likely to require greater separation distances between groups. Landscapes with significant topography and woodland cover have the potential to reduce intervisibility. Scale and pattern can have a more subjective effect, but in general smaller scale landscapes are more likely to be affected by wind energy development compared with larger scale landscapes. The presence of other tall objects such as electricity pylons also affects the perception of turbine development.

The distances given in Table 6.1 are approximate, relating primarily to (1) and (2) above. Landscape character including topography is also important: where landforms are capable of visually separating turbine groups the distance between landforms is a consideration in setting distances. For example:

- in the *Rolling Farmland* which is a proposed *Landscape with Occasional Turbines*, the separation distances are designed to ensure a degree of screening: a distance of 3-5km is the separation required to ensure that a significant landform separates groups of mid-sized turbines and 5-10km is the distance that the nearest larger size turbines, if seen above landforms, will become a minor feature in the view.
- In contrast *Plateau Grassland*, which is a proposed *Landscape with Turbines*, has undulating plateau like landforms and larger turbines in larger groups are separated by 5-10km, such that they are likely to be partially inter-visible but nevertheless clearly separated but recognisable as a 'cluster' of developments in one area.

In the case of landscape character areas of limited extent, the separation distances for larger turbines in particular mean that, in theory, only one grouping would be comfortably accommodated within the area. The separation distance may then apply between a development in that area and a similar size development in an adjacent landscape character area.

In the case of extensions to, or repowering of existing windfarms it will be necessary to assess the potential change to wind turbine landscape type that could result from increased turbine size, increased numbers within a group and/or the reduced separation between turbine groups.

**As the recommended distances are an approximate range it is emphasised that separation distances between specific proposals should be considered in more detail on a case by case basis.**

#### 6.2.4 Windfarm Extensions

In some cases, it is more appropriate to extend an existing windfarm than to create a new focus of development with a new set of separation distances. The acceptability of such extensions depends upon the extent to which the original approved site has occupied the space available and whether additional turbines will push on to visually sensitive areas or sensitive landscapes. Extensions should fit harmoniously to form a single coherent composition with the previously existing windfarm. SNH's guidance highlights the need for compatibility of design between existing windfarms and extensions; as well as the possibility of the extension 'outliving' the existing windfarm and standing on its own<sup>13</sup>.

#### 6.2.5 Re-powering of Existing Windfarms

Re-powering involves the replacement of existing turbines with more modern and generally much larger turbines located within the site of an existing windfarm. In practice, this will involve new turbine positions and different turbine separation distances set for the new parameters. Effectively, it involves the creation of a new windfarm on the site of an old one. In assessing the acceptability of such developments, it will be necessary to assess the potential change to wind turbine landscape type that could result from increased turbine size, as the scaling relationships of larger turbines and the associated Zones of Theoretical Visibility may be radically different and may exceed an established landscape capacity. There is no current accepted practice as to whether the existing windfarm should form part of the visual baseline for assessment. SNH states in its latest guidance that it is preparing separate guidance on repowering applications, however, they recommend that the baseline panorama is shown with the existing windfarm removed but that a visualisation comparing the existing and proposed windfarm is also prepared<sup>14</sup>.

#### 6.2.6 Other Factors which Influence Guidance

The generic capacity assessment for some landscape types does not cover the variation found between or even within individual geographical units of that type. This is usually because of one or two key landscape factors which override the characteristics including:

- All or part of the character area is much more prominent and visible than the bulk of the area covered by the landscape type;
- A particularly small area is covered by the character area compared with the main areas of the landscape type;
- Some or all of the character area lies in an area designated to protect a landscape (eg. National Scenic Area) or the setting and amenity of a settlement;

- Close proximity to other more sensitive neighbouring character areas which would be significantly affected by wind energy proposals otherwise suitable for the host character area.
- Close proximity to other landscape types, settlements or industry which reduces the sensitivity of a host landscape character area or part area compared with the bulk of the area covered by the landscape type.

A combination of any of these factors might limit the ability of a specific landscape character area or part of an area to accommodate a level of development otherwise acceptable to the type. The main areas are identified in Table 6.1 and Figures 6.1 to 6.4. Nevertheless, any specific development should be considered in more detail and also assessed against local factors where appropriate.

**Finally, it is emphasised that this assessment is focused on landscape and visual issues. Areas which have been identified as suitable on this basis may be restricted by other unrelated factors such as protection of wildlife, effects on residential amenity, tourism and recreation, aviation restrictions, lack of grid connection or within the exclusion zone/ consultation zone of the seismological array at Eskdalemuir. Where particular significant non-landscape issues are known, which may conflict with the conclusions on landscape capacity, they are highlighted in the table. However, these issues are not comprehensively covered as they are not the subject of this assessment; but they are covered in the Council's Renewable Energy Supplementary Guidance.**

<sup>13</sup> SNH (August 2017). *Siting and Designing Windfarms in the Landscape v3a* paras 4.16-17

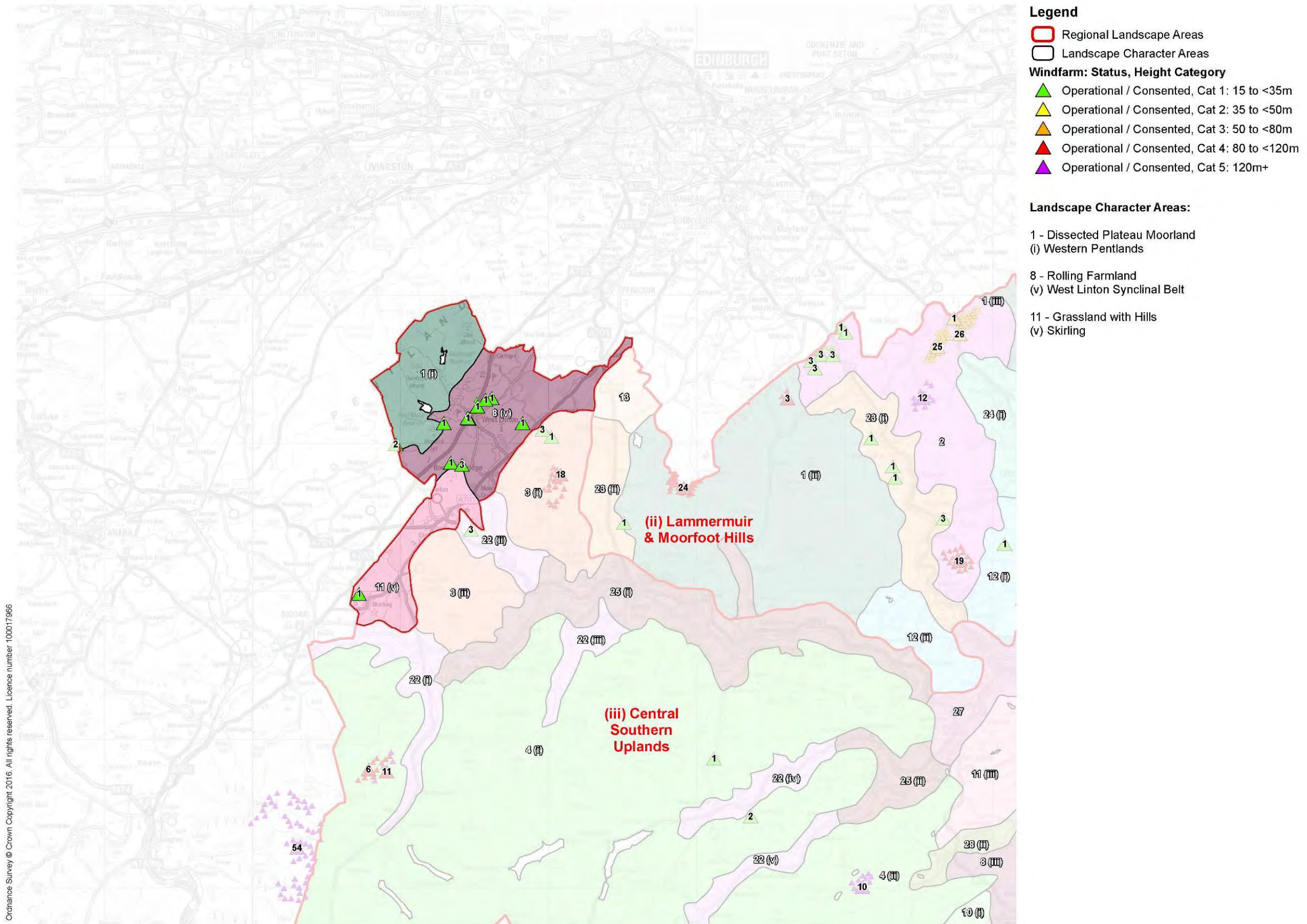
<sup>14</sup> SNH (Feb 2017). *Visual Representation of Wind Farms v2.2* section 6



**Explanation of Table 6.1**

Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																						
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT				PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)													
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel't'd to turbine size)					Analysis & Guidelines					
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<30m	30-<50m	50-<80m	80-<120m	Over 120m						
Landscape Character Area: <i>Name of Landscape Character Area/ Sub-Area</i>																						
Med/High	Med/High	Med/High	Med/High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>			Brief description of consented wind energy developments (at time of report), including numbers size range, distribution, with key developments named.	Wind Turbine Landscape Type(s) within the area resulting from current consented levels of development (refer to <b>Table 2.1</b> for description of type and map in <b>Figure 6.2</b> for distribution of types across study area)	Proposed limits to future Wind Energy development expressed as a Wind Turbine Landscape Type (refer to <b>Table 2.1</b> for description of type and <b>Figure 6.3</b> for proposed distribution of types across the study area)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>				Residual landscape capacity for development of different turbine size categories. This is derived from the underlying landscape capacity and the proposed limits to future development by considering the extent to which current wind energy development already occupies the underlying landscape capacity	<p><b>Landscape Analysis:</b> Brief description of key qualities and characteristics of the landscape character area/ sub-area affecting its capacity to accommodate different types of wind turbine development.</p> <p><b>Development Capacity:</b> Brief comment on landscape capacity and on current developments and future proposals in relation to landscape capacity.</p> <p><b>Where relevant, the most significant non-landscape constraints are highlighted for areas. As the study is focussed on landscape matters, details of these constraints are for information only and do not constitute a comprehensive list.</b></p>			
Assessment of landscape sensitivity and value of the landscape character area or sub-area (from detailed assessment in <b>Appendix 5</b> )				Assessment of landscape capacity for different turbine sizes derived from the sensitivity and value assessment and mapped in <b>Figures 6.1a-e</b> . This represents the 'underlying' capacity of the landscape and does not take into account the cumulative effects of existing/ consented wind energy development.									<p><i>Max. Numbers in Group</i></p> <p>Suggested range/ maximum number of turbines in groupings, including for turbines in future extensions, to ensure capacity is not exceeded</p>					1-3	1-3			
													<p><i>Min Group Separation Distances (km)</i></p> <p>Suggested separation distance between turbine groupings to ensure capacity is not exceeded</p>					2-4	3-5			

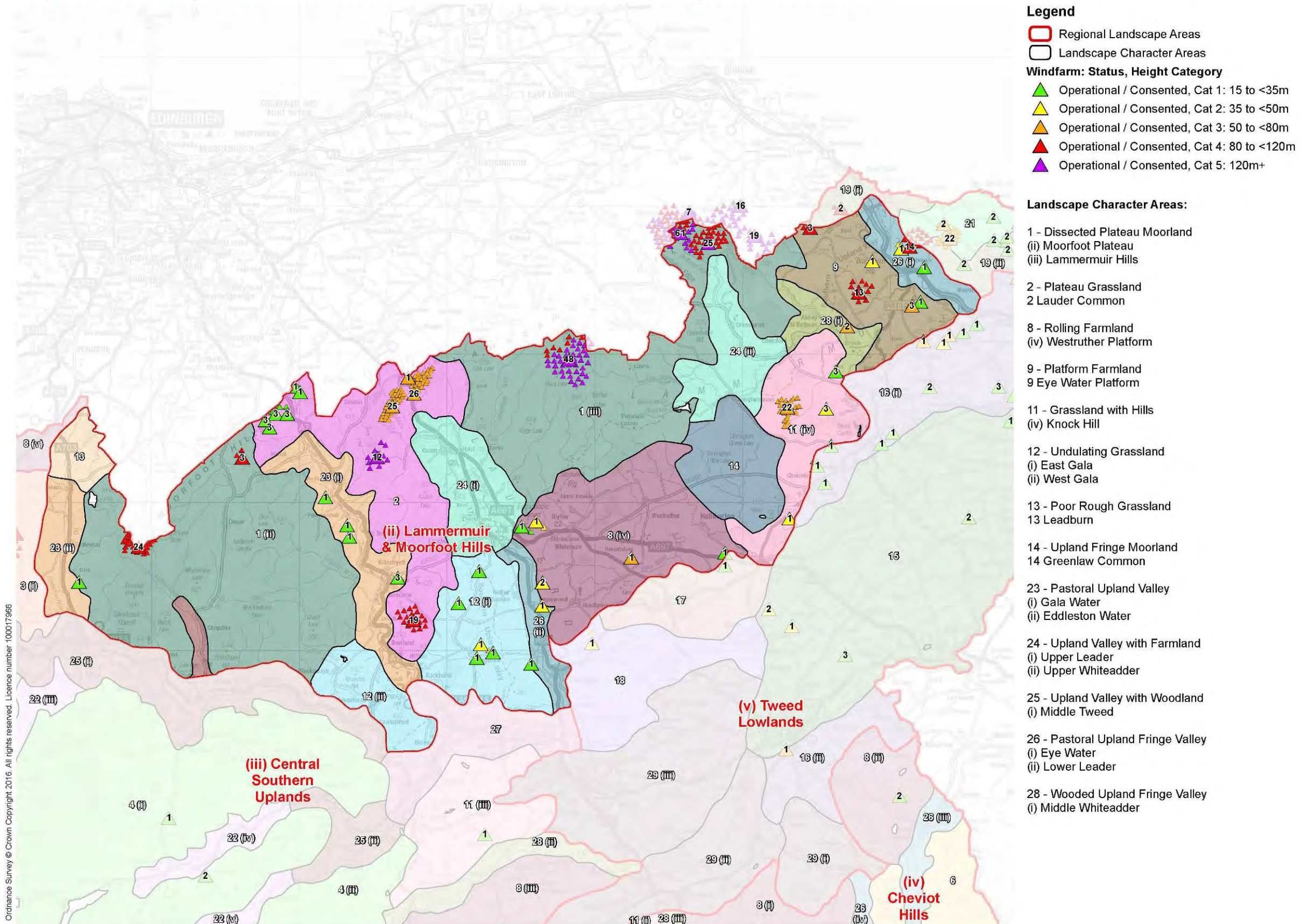
**Figure 6.1 (i) - Midland Valley Regional Area**



**Table 6.1(i). Summary of Landscape Capacity and Cumulative Effects and Guidance for Future Wind Energy Development – Midland Valley**

Key:  No Capacity  Low Capacity  Medium Capacity  High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel't'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
<b>1. Dissected Plateau Moorland: (i) Western Pentlands</b>																	
Med	Med/High	Med/High	High						There are three turbines under 35m in adjacent <i>Rolling Farmland</i> and/or on the periphery of this LCA	<b>Upland with No Wind turbines/ Occ. Wind Turbines</b>	<b>Upland with No Wind turbines/ Occ. Wind Turbines</b>						<p><b>Landscape Analysis:</b> The large scale and undulating landform of the Dissected Plateau Moorlands is generally suitable for larger scale wind energy development. However, the western slopes and highest hills of the Western Pentlands are distinctive prominent features visible from settlements and key transport routes in the Midland Valley. The Western Pentlands LCA has a higher value due to the Pentlands Regional Park to the immediate northeast, north and north west and the SLA designation covering this LCA in recognition of its scenic qualities.</p> <p><b>Development Capacity:</b> Turbines should be kept well back from the most prominent summits. This LCA is only suitable for single or paired turbines below 35m height, visually associated with farmsteads in lower elevated/ peripheral areas.</p>
										<i>Max. Numbers in Group</i>	1-2						
										<i>Min Group Separation Distances (km)</i>	2-4						
<b>8. Rolling Farmland: (v) West Linton</b>																	
Med/High	Med/High	Med/High	Med/High						There are up to a dozen turbines under 35m within or immediately adjacent to this LCA.	<b>Upland Fringe with Occ. Wind Turbines</b>	<b>Upland Fringe with Occ. Wind Turbines</b>						<p><b>Landscape Analysis:</b> Medium scale farmland and small settlements set between hills. The southwestern part is predominantly enclosed farmland, whereas the northeastern rises to higher ground with forestry, towards Auchencorth Moss. The western part of the LCA is part of the Pentlands SLA and influenced by the Pentlands Regional Park outwith the SBC area.</p> <p><b>Development Capacity:</b> The area has medium capacity for single or small groups up to 3no. Turbines below 35m height and low capacity for single turbines below 50m height. Turbine development would be better accommodated in this LCA if visually associated with farmsteads and small settlements, although there is scope for the larger turbines in the larger scale landscape of the northeastern part.</p>
										<i>Max. Numbers in Group</i>	1-3	1					
										<i>Min Group Separation Distances (km)</i>	1-2	4					
<b>11. Grassland with Hills: (v) Skirling</b>																	
Med/High	Med/High	Med/High	Med/High						There are 5 turbines under 35m within or immediately adjacent to this LCA.	<b>Upland Fringe with Occ. Wind Turbines/ no Wind Turbines</b>	<b>Upland Fringe with Occ. Wind Turbines</b>						<p><b>Landscape Analysis:</b> Medium scale improved hilly pastureland with occasional small settlements. Hills of modest scale, 100-150m higher than surroundings. The area is visible from a number of local high points including the Pentland Hills and the regional landmark/ viewpoint of Tinto Hill. The south eastern area of this LCA is part of a larger SLA.</p> <p><b>Development Capacity:</b> This LCA has a low capacity for individual turbines up to 50m high. Turbines should be sited to avoid negative impacts on the SLA. Turbine development would be better accommodated in association with farmsteads and read as part of agricultural development, although the largest turbines may be best located near the forested area</p>
										<i>Max. Numbers in Group</i>	1-3	1					
										<i>Min Group Separation Distances (km)</i>	1-2	4					

Figure 6.1 (ii) - Lammermuir & Moorfoot Hills Regional Area





**Table 6.1(ii). Summary of Landscape Capacity and Cumulative Effects and Guidance for Future Wind Energy Development – Lammermuir and Moorfoot Hills**

Key:  No Capacity  Low Capacity  Medium Capacity  High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
<b>1. Dissected Plateau Moorland: (ii) Moorfoot Plateau</b>																	
Low/Med	Med	Med/High	Med/High						The Moorfoot Plateau is relatively undeveloped, there are two windfarms: Bowbeat has 24x86m turbines and Carcant has 3x110m. There is also one consented turbine under 35m high.	<b>Upland with No Wind turbines/ Occ. Wind Turbines</b>	<b>Uplands with Wind Turbines/ with Occasional Wind Turbines</b>						<b>Landscape Analysis:</b> The Moorfoots are a range of large scale rolling and undulating moorland hills dissected by steep sided valleys. Largely unforested except to the south. They form a prominent escarpment and skyline above the Esk valley seen from Edinburgh and the Midlothian towns to the north and form the backdrop to the Tweed valley and its settlements to the south. The range is divided into western and eastern halves by a steep sided cleft containing the B709 road to Innerleithen. The southern edge of the Moorfoot Hills lie in the Tweed Valley SLA and the northern escarpment is locally designated in Midlothian.
											Max. Numbers in Group	3	1	25	25	10	<b>Development Capacity:</b> The LCA could accommodate further larger scale wind energy development. Turbines of 120m+ could be accommodated in smaller numbers where topography aids screening. Careful design consideration should be given to extensions/ repowering of existing developments. Turbine developments should not adversely encroach onto the visually prominent escarpment and skyline facing Edinburgh or the setting of the Tweed Valley to the south. There is capacity for smaller sized turbines in lower areas, best accommodated in association with farmsteads and dwellings and visually read as domestic/ farm scale generation.
											Min Group Separation Distances (km)	1-2	2-4	5-10	5-10	10	<b>Significant non Landscape Constraint: The large Moorfoot Hills SSSI and SAC in the eastern area, designated for birds, blanket peat and heath.</b>
<b>1. Dissected Plateau Moorland: (iii) Lammermuir Plateau</b>																	
Low/Med	Med	Med	High						Extensive large scale windfarm development within and adjacent to this area. There is an extensive cluster of windfarms (Crystal Rig/ Aikengall) on the border of ELC and SBC in the east of the LCA with 127 turbines between 100 and 145m tall operating or consented. Fallago Rig windfarm has 48 turbines at 110/125m. Dun Law windfarm with 61 turbines of 67-75m and Pogbie and Keith Hill (11 turbines) are located	<b>Wind Turbine Landscape/ Uplands with Wind Turbines /Occasional Wind Turbines</b>	<b>Wind Turbine Landscape/ Uplands with Wind Turbines /Occasional Wind Turbines</b>						<b>Landscape Analysis:</b> The Lammermuir Hills is an extensive area of undulating heather moorland plateau with deeply-riven valleys straddling Scottish Borders and East Lothian between the A68 and the coastal fringes of the North Sea. The northern and eastern escarpments form a backdrop with wide undulating skylines to the surrounding lowland and coastal areas. The vast majority of this LCA is covered by local landscape designation in Scottish Borders and East Lothian. The long distance Southern Upland Way runs along the south of this LCA in Scottish Borders. Extensive large scale wind energy developments are located within and adjacent to the LCA: the northern part of the LCA on the boundary with East Lothian is reaching capacity and becoming a <i>Landscape with Wind Turbines</i> with areas of <i>Wind Turbine Landscape</i> around Crystal Rig/Aikengall and Fallago Rig.
											Max. Numbers in Group	3	1	10	50-100	50-100	<b>Development Capacity:</b> The Lammermuir Plateau has been subject to extensive windfarm development and much of its underlying capacity is occupied. There is capacity for limited additional development of larger turbines provided this is associated with existing windfarms. Extensions should maintain significant separation between the established wind energy clusters, taking advantage of areas with topographical containment and lower intervisibility to avoid increasing the overall prominence of existing windfarms beyond the LCA. There is capacity for smaller sized turbines in
											Min Group Separation Distances (km)	1-2	2-4	5-10	5-10	10	

Key:  No Capacity  Low Capacity  Medium Capacity  High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
									immediately to the west and have some visual influence on the LCA.						peripheral areas or valleys where sited alongside farmsteads and dwellings, and read as domestic/agricultural generation, well separated from the larger developments in the highest areas.		
<b>2. Plateau Grassland: <i>Lauder Common</i></b>																	
Med	Med	Med	Low/Med						Currently 61 turbines of 67-75m at Dun Law in the north of the LCA and Pogie and Keith Hill (11 turbines) are located immediately to the north in East Lothian. To the south/ south west of this there are 12x125m turbines at Toddleburn and in the south of this LCA Long Park has 19x110m turbines. There is also a cluster of approximately 14no turbines under 35m in the north west along the border with Midlothian.	<b>Uplands with Wind Turbines/ Uplands with Occasional Wind Turbines. Wind Turbine Landscape in the north</b>	<b>Uplands with Wind Turbines/ Wind Turbine Landscape in the north.</b>						<b>Landscape Analysis:</b> This is the only area of <i>Plateau Grassland</i> in Scottish Borders. It forms a broad ridge of gently rolling hills separating the Gala and Leader Waters between the Lammermuir and Moorfoot Hills, and forming a prominent northern escarpment at Soutra Hill. This is a large scale landscape but is lower than the surrounding <i>Dissected Plateau Moorland</i> and of significantly lesser extent. There is limited heather moorland and a much greater proportion of grassland, much of which is enclosed and improved with surrounding coniferous shelterbelts and plantations. There are scattered farms around the edges. The area east of the A68 lies on the edge of the Lammermuir Hills SLA, otherwise there are no landscape designations. <b>Development Capacity:</b> This landscape could accommodate limited additional windfarm development. However, given existing developments, overall cumulative impact and potential 'saturation' of underlying capacity is a major consideration. Larger scale wind energy development should be well-separated from other clusters and located away from sensitive locations including around the B6362 Lauder-Stow road and the visually prominent outer slopes, taking advantage of the topographical containment in wider sections of the elevated plateau. Smaller turbines could also be accommodated, but in more limited group sizes more closely associated with farmsteads and enclosed fields. Cumulative considerations also apply and smaller turbines should be located away from areas with larger turbines. Repowering or further extension of the Dun Law cluster would need to take very careful account of existing turbine sizes and the visual sensitivity of the skyline in views from north or south.
												1-3	1-3	50	25	25	
												1-2	2-4	5-10	5-10	10	
<b>8. Rolling Farmland: (iv) <i>Westruther Platform</i></b>																	
Med/High	Med/High	Med/High	Med/High						There are several single/ paired turbines under 35m or 50m located mainly on the western fringes of this LCA, with one 67m turbine centrally located.	<b>Upland Fringe with Occ./ no Wind Turbines</b>	<b>Upland Fringe with Occ. Wind Turbines</b>						<b>Landscape Analysis:</b> Medium scale rolling farmland and small settlements set between the Lammermuir Hills to the north and the Tweed Lowlands to the south. Some more prominent hills to the west and occasional small scale valleys. The northern edge rises to meet the <i>Dissected Plateau</i> of the Lammermuirs. <b>Development Capacity:</b> Due to the undulating upland fringe, settled farmland character of this landscape there is limited capacity only for turbines below 50m, with no capacity for larger turbines due to scale issues and the potential for wide visibility. Capacity is locally constrained by a number of landscape and visual sensitivities:
												3	2				<ul style="list-style-type: none"> <li>the presence of numerous individual farmsteads and small settlements</li> <li>more prominent landforms such as Boon and Knock Hill and smaller scale valleys draining west</li> <li>in the west by the presence of important transport routes (A68 just outwith the LCA) and the SuW that increase visual sensitivity and recreational value.</li> </ul>
												1-2	2-4				

Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
<p><b>9. Platform Farmland: Eye Water Platform</b></p>																	
Med/High	Med/High	Med/High	Med	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p>3nr consented 115m turbines at Hoprigshiel at the northern edge; 3nr 79.5m turbines at Brockholes towards the SE. One consented windfarm of 13x100m turbines at Quixwood in the middle of the LCA. 7 further consented &lt;80m turbines within/ adjacent.</p> <p>The north of this LCA is very close to the consented 19x140m turbines of Akingall II, an extension to the existing Crystal Rig/ Aikengall. Operational Drone Hill and consented Penmanshiel windfarms are visible to the east</p>	Upland Fringe with Wind Turbines	Upland Fringe with Wind Turbines	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Medium to large scale farmland with gently undulating landform and scattered dwellings set between two narrow valleys; transitional between the Lammermuir Hills to the northwest and the Tweed Lowlands to the south. Although there are scattered shelterbelts, there would be high intervisibility for tall structures across the area and around the edges. A small area in the north west is part of the Lammermuir Hills SLA and the Southern Upland Way passes through in a south west to north east direction between St Bathen and Penmanshiel Wood. The important transport routes along the eastern coastal area and higher intervisibility of the eastern outer slopes and southern area create areas not suitable for significant turbine development in the eastern to southern extents of the LCA.</p> <p><b>Development Capacity:</b> Due to the medium-large scale and settled landuse of this landscape there is no underlying capacity for the largest scale of turbine. There is limited underlying capacity for turbines up to 120m. However, due to the central location of Quixwood windfarm, presence of Hoprigshiels in the north and proximity of Aikengall II extension, capacity has been substantially utilised, leaving very limited capacity only for separate developments of up to 3 turbines under 50m tall.</p>
										Max. Numbers in Group	3	3					
										Min Group Separation Distances (km)	1-2	2-4					
<p><b>11. Grassland with Hills: (iv) Knock Hill</b></p>																	
Med	Med/High	Med/High	Med/High	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p>There is currently one windfarm of 22x78m turbines at Black Hill approximately in the north of this LCA, and a cluster of 3no. mid-sized turbines to the east of this. Within the north, located on the boundary there are three existing 15-35m turbines and one 35-50m turbine in the south.</p>	Upland Fringe with Occasional Wind Turbines	Upland Fringe with Occasional Wind Turbines	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> A medium to large scale landscape with broad sloping pastureland accentuated by groups of steeper hills. Extensive shelterbelts and valley woodlands in the lower areas, with scattered small-scale settlement. A transition between the Lammermuir Hills to the north and the Tweed Lowlands to the south. The Southern Upland Way passes through the northern edge of this landscape and the GDL of Duns Castle lies in the east. The northeastern edge has a prominent hillfort overlooking the narrow Whiteadder valley, Edin's Hall broch and Abbey St Bathans (see 28(i) below).</p> <p><b>Development Capacity:</b> There is no underlying capacity for the largest scale of turbine. There is underlying medium capacity for turbines up to 80m. However, due to presence of Black Hill windfarm there is very limited remaining capacity in this LCA. Individual or small groups of turbines up to 50m will be more easily accommodated especially if associated with farmstead developments and in areas well separated from</p>
										Max. Numbers in Group	3	3					
										Min Group Separation Distances (km)	1-2	2-4					

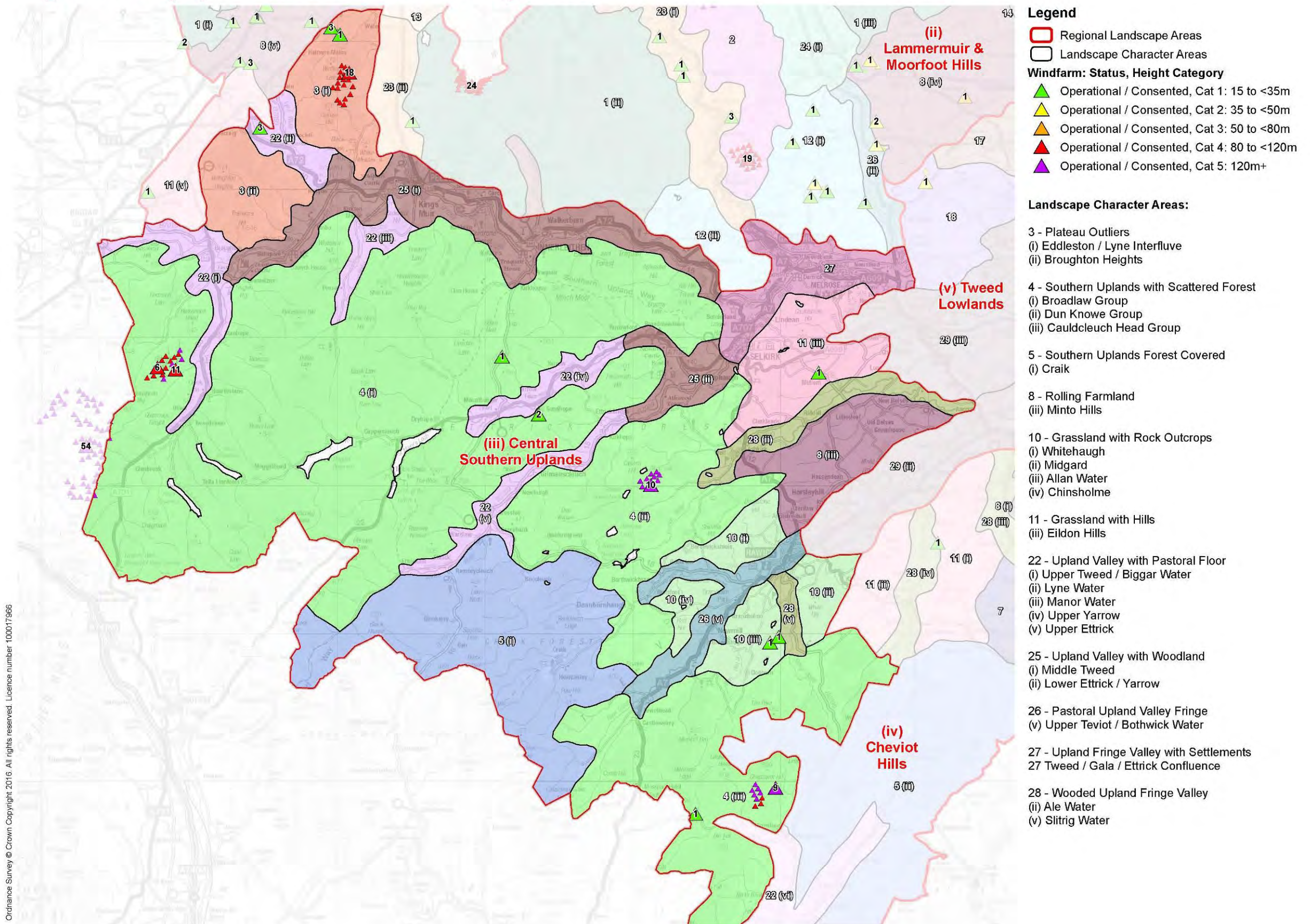
Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
															Black Hill. If additional windfarms are added to this landscape it is at risk of becoming a <i>Landscape with Wind turbines</i> . Additional turbine development within this LCA should be sited to minimise cumulative effects on the Southern Upland Way and effects on the setting of Cockburn Law hillfort, Edin's Hall Broch and Abbey St Bathans.		
<b>12. Undulating Grassland: (i) East Gala</b>																	
Med	High	Med/High	Med/High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Currently there are 5no. 15-30m and one 30-50m turbine. The 19 turbines of Long Park windfarm lie within 1-3km in <i>Plateau Grassland</i> to the west.	<i>Upland Fringe with Occasional Wind Turbines</i>	<i>Upland Fringe with Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> A medium to large scale landscape of undulating hills with steep sided valleys. Mainly comprising enclosed grazing land with drystone dykes, shelterbelts and small areas of forestry. Small settlements and farmsteads linked by minor roads. The eastern area forms the northern backdrop to Galashiels and the southern backdrop to Lauder. The southeastern corner overlaps with the Eildon Hills &amp; Leaderfoot NSA and the Southern Upland Way passes north through the area.</p> <p><b>Development Capacity:</b> There is no underlying capacity for larger turbines or commercial windfarms due to proximity to settlements and the area having a higher visual sensitivity. There is limited capacity for individual turbines below 50m tall within the more isolated or rural areas of the LCA, sited away from settlements and the Southern Upland Way and outside the NSA.</p>
											<i>Max. Numbers in Group</i>	3	1				
											<i>Min Group Separation Distances (km)</i>	1-2	2-4				
<b>12. Undulating Grassland: (ii) West Gala</b>																	
Med	High	Med/High	Med/High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There are currently no wind turbines or windfarms within the West Gala LCA. The closest turbines are at Long Park, some 3km to the northeast.	<i>Upland Fringe with Occasional Wind Turbines</i>	<i>Upland Fringe with Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> See above. The western area is smaller than the east and contains the village of Clovenfords. It forms the western backdrop to Galashiels. The southern and southeastern parts lie in the Tweed, Ettrick and Yarrow Confluence SLA and the Fairlie GDL. The SUW passes across the southeastern end.</p> <p><b>Development Capacity:</b> Areas in the northwest and centre of West Gala have capacity for individual or small clusters of turbines below 50m tall, associated with farms and relating to agricultural landuse patterns. Care should be taken with the settings of Galashiels, Clovenfords, Fairlie and the Southern Upland Way.</p>
											<i>Max. Numbers in Group</i>	3	1				
											<i>Min Group Separation Distances (km)</i>	1-2	2-4				
<b>13. Poor Rough Grasslands: Leadburn</b>																	
Med	Med/High	Med	Low/Med	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There are currently no wind turbines or windfarms within or near this LCA.	<i>Upland Fringe with No Wind Turbines</i>	<i>Upland Fringe with Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Much of this area is a large scale simple upland fringe landscape. However it is constrained in area and has smaller scale landscape references in terms of tree belts, farms and smaller topographic features in the west. It lies between two visually sensitive hill ranges of the Pentlands and Moorfoots and close to settlements.</p> <p><b>Development Capacity:</b> This landscape has the scale and landform to accommodate larger size turbines. However it is constrained by limited area and visual sensitivities. There is scope for smaller size turbines (up to 50m) but very limited capacity for larger turbines below the height of 80m without turbines beginning to dominate the area, as was determined by the dismissal of Mount Lothian windfarm appeal (9x102m turbines) in neighbouring Midlothian.</p>
											<i>Max. Numbers in Group</i>	5	5	1			
											<i>Min Group Separation Distances (km)</i>	1-2	2-4	3-5			

Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel't'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
<b>14. Upland Fringe Moorland: Greenlaw Common</b>																	
Low/Med	Med/High	Med	Med/High	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There are currently no wind turbines or windfarms within this LCA. Black Hill windfarm with 19x75m turbines lies within 1-3km to the northeast.	<i>Upland Fringe with No Wind Turbines</i>	<i>Upland Fringe with No/ Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> A large scale simple moorland landscape, but limited in area. The landform is tilted to the south and visibility across it is widespread. Most of the area is part of the extensive Lammermuir Hills SLA and is characterised by the two distinctive and prominent Darrington Law hills.</p> <p><b>Development Capacity:</b> This LCA could accommodate smaller sized turbines associated with farms close to roads and around the edges. Turbines should be sited close to individual farmsteads and properties to reflect the domestic scale. The area on and around the Darrington Laws has very limited capacity due to the distinctive smooth rounded profile of these prominent hills and their limited height.</p> <p><b>Significant Non Landscape Constraint. The large Greenlaw Moor SSSI south of the B6456, designated for geology, raised bog and birds.</b></p>
										Max. Numbers in Group	3	1					
										Min Group Separation Distances (km)	1-2	3-5					
<b>23. Pastoral Upland Valley: (i) Gala Water</b>																	
Med/High	Med/High	Med/High	Med/High	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	3 turbines below 35m tall near Fountainhall and 3 near Stow. Toddleburn and Long Park windfarms in adjacent <i>Plateau Grassland</i> LCA are visible in parts of the valley.	<i>River Valley with Occasional/ No Wind Turbines</i>	<i>River Valley with Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> A medium scale, flat bottomed, tightly meandering valley with rounded enclosing slopes. Well settled with villages and farms, enclosed farmland and many small woodlands and shelterbelts creating diverse framed views. The Gala Water LCA contains the A7 tourist route and the Borders Railway Line. The southernmost part of the LCA borders the town of Galashiels.</p> <p><b>Development Capacity:</b> This LCA has limited capacity for smaller sized turbines as individuals or small groups of 3 or fewer. No capacity for larger commercial scale turbines or windfarms due to the modest scale of the landscape and its diverse character together with the sensitive A7 tourist route and Borders Railway. The steep valley sides can be highly prominent from the valley floor and turbines should be carefully and sparingly located.</p>
										Max. Numbers in Group	3	1					
										Min Group Separation Distances (km)	1-2	3-5					
<b>23. Pastoral Upland Valley: (ii) Eddleston Water</b>																	
Med/High	Med/High	Med/High	Med/High	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There are currently no wind turbines or windfarms within this LCA. Bowbeat windfarm lies within 3km to the east but is only visible from higher areas.	<i>River Valley with No Wind Turbines</i>	<i>River Valley with Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> A medium scale, flat bottomed valley with rounded enclosing slopes, steep on the eastern side and the south. Well settled with Eddleston village, large houses and farms, enclosed farmland and many small woodlands and shelterbelts. The Eddleston LCA contains the busy A703 and southernmost part lies within the Tweed Valley SLA close to the town of Peebles.</p> <p><b>Development Capacity:</b> Limited capacity for smaller sized turbines as individual turbines or small groups of 3 or less turbines. There is no capacity for larger commercial scale turbines or windfarms due to the modest scale of the landscape and its diverse character together with the sensitive A7 tourist route and Borders Railway. The steep valley sides can be highly prominent from the valley floor and turbines should be carefully and sparingly located.</p>
										Max. Numbers in Group	3	1					
										Min Group Separation Distances (km)	1-2	3-5					

Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel't'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
<b>24. Upland Valley with Farmland: (i) Upper Leader</b>																	
Med/High	Med/High	Med/High	Med/High	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There are currently no wind turbines or windfarms within this LCA. Dun Law windfarm lies within 1km to the north and Toddleburn 1.5km to the west. These are visible from northern areas.	<i>River Valley with No Wind Turbines</i>	<i>River Valley with Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> A medium to large scale broad open valley with gently rounded enclosing slopes. Well settled with villages and farms and enclosed farmland with small woodlands and shelterbelts. The LCA contains the busy A68 and A697 roads. The eastern side lies within the edge of the Lammermuir Hills SLA and the southernmost part includes the town of Lauder and Thirlestane Castle. The southern area contains the Southern Upland Way</p> <p><b>Development Capacity:</b> The central, wider less prominent areas of this valley LCA have capacity for individuals or groups of up to 3 smaller sized turbines. These will be better accommodated if the turbines are visually associated with agricultural patterns, farmsteads and individual properties or with existing settlement. Siting of turbines in the north should avoid the potential for cumulative effects with the neighbouring windfarms and care should be taken with the settings of Oxton and Lauder.</p>
										Max. Numbers in Group	3	1					
										Min Group Separation Distances (km)	1-2	3-5					
<b>24. Upland Valley with Farmland: (ii) Upper Whiteadder</b>																	
Med/High	Med/High	Med/High	Med/High	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There are currently no wind turbines or windfarms within this LCA. Crystal Rig windfarm lies within 1km to the north and turbines of this and Black Hill are visible from higher areas.	<i>River Valley with No Wind Turbines</i>	<i>River Valley with Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Two (Whiteadder and Dye) medium scale open valleys with rounded enclosing slopes. Settled with villages, farms and enclosed farmland with small woodlands and shelterbelts. The LCA contains B and minor roads. Almost all lies within the Lammermuir Hills SLA and the southernmost part includes the village of Longformacus. The southern area of this LCA contains the Southern Upland Way</p> <p><b>Development Capacity:</b> These valleys are of a smaller scale and width than the Upper Leader and less busy. There is capacity for individuals or groups of up to 3 smaller sized turbines; best accommodated if visually associated with agricultural patterns, farmsteads or individual properties. Turbines in the north and south of the LCA should be sited to avoid the potential for cumulative effects with the neighbouring Crystal Rig and Black Hill windfarms and care should be taken with the setting of Longformacus.</p>
										Max. Numbers in Group	3	1					
										Min Group Separation Distances (km)	1-2	3-5					
<b>25. Upland Valley with Woodland: (i) Middle Tweed (Leithen Water)</b>																	
High	High	High	High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There are currently no wind turbines or windfarms within or near this part of the LCA.	<i>River Valley with No Wind Turbines</i>	<i>River Valley with No/Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> The Leithen Water is a side valley to the Tweed (see Figure 6.1(iii) and table below for main area). Small scale meandering valley set in <i>Dissected Plateau Moorland</i> hills with steep rounded enclosing slopes. Occasional farms and enclosed farmland with shelterbelts and plantations. The LCA contains B709 to Edinburgh. Southern end is within the River Tweed SLA</p> <p><b>Development Capacity:</b> the intimate enclosed scale of the valley means capacity is restricted to individual turbines up to 20m tall, visually associated with agricultural patterns, farmsteads and individual properties.</p>
										Max. Numbers in Group	1						
										Min Group Separation Distances (km)	2-3						

Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel't'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
<b>26. Pastoral Upland Fringe Valley: (ii) Lower Leader</b>																	
Med/High	Med/High	Med/High	Med/High	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There are currently one <35m and three 35-50m wind turbines within or near this LCA.	<i>River Valley with No/Occasional Wind Turbines</i>	<i>River Valley with No/Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Medium scale well settled pastoral valley set between low grassland hills with shallow enclosing slopes. The Lower Leader LCA contains A68 to Edinburgh and the southern end lies within the Leader and Eildon Hills NSA. The settlement of Earlston lies just north of the NSA.</p> <p><b>Development Capacity:</b> This LCA has limited capacity for individual smaller turbines only. There is no capacity for commercial scale developments. Capacity is reduced by the important transportation links between England and Scotland (A68) increasing visual sensitivity of this area. The southern area of the LCA has no capacity due to the NSA designation.</p>
										Max. Numbers in Group	1	1					
										Min Group Separation Distances (km)	2-3	3-5					
<b>26. Pastoral Upland Fringe Valley: (i) Eye Water</b>																	
Med/High	Med/High	Med/High	Med/High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	One <35m and one 35-50m wind turbine within this LCA. Three 100m turbines of Penmanshiel windfarm lie within the northeastern edge and others have a visual influence.	<i>River Valley with No/Occasional Wind Turbines</i>	<i>River Valley with Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Medium scale well settled pastoral valley with shallow enclosing slopes set between low grassland hills. The LCA contains the A1 trunk route and West Coast mainline to Edinburgh and the northern end lies within the Berwickshire Coast SLA and is crossed by the Southern Upland Way.</p> <p><b>Development Capacity:</b> This LCA has limited capacity for individual or small groups of smaller turbines only. There is no capacity for commercial scale developments. Capacity is reduced by the important transportation links between England and Scotland, increasing visual sensitivity of this area and by the potential for cumulative effects with nearby Penmanshiel windfarm.</p>
										Max. Numbers in Group	1-3						
										Min Group Separation Distances (km)	2-3						
<b>28. Wooded Upland Fringe Valley: (i) Middle Whiteadder</b>																	
Med/High	Med/High	Med/High	Med/High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Two consented 54m wind turbines within upper edges of this LCA. Three 19.5m turbines lie just to the southwest.	<i>River Valley with No/Occasional Wind Turbines</i>	<i>River Valley with No/Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Small scale narrow meandering valleys (Monynut Water and Middle Whiteadder) with steep densely wooded enclosing slopes. Set between the eastern slopes of the Lammermuir Hills and rounded farmland hills. Two small settlements at Abbey St Bathans and Ellemford. The LCA overlaps with the Lammermuir Hills SLA and is crossed by the Southern Upland Way. There are a number of hillforts and brochs in or adjacent to the area, including Edin's Hall and Cockburn Law.</p> <p><b>Development Capacity:</b> This small scale intimate sheltered character of this LCA has limited capacity for individual smaller turbines only. Turbines should be located on the outer edges of the LCA to minimise effects on the valley floor. There is no capacity for commercial scale developments. The setting of the settlements hillforts/ brochs should be respected.</p>
										Max. Numbers in Group	1						
										Min Group Separation Distances (km)	2-3						

**Figure 6.1 (iii) - Central Southern Uplands**



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**Table 6.1(iii). Summary of Landscape Capacity and Cumulative Effects and Guidance for Future Wind Energy Development – Central Southern Uplands**

Key:  No Capacity  Low Capacity  Medium Capacity  High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
<b>3. Plateau Outliers: (i) Eddleston/ Lyne Interfluve</b>																	
Med	Med/High	Med/High	Med/High						Cloich Forest (18x115m consented by appeal.4no. consented 15-35m turbines in the north eastern part of the LCA.	<i>Uplands with Wind Turbines/ No Wind Turbines</i>	<i>Uplands with Wind Turbines/ Occasional Wind Turbines</i>						<p><b>Landscape Analysis:</b> A compact range of large scale rolling hills separated from the main upland areas by steep sided river valleys. Settlement and enclosed land is located around the edges with internal areas open grazing or forestry. The southeastern corner is designated as an SLA and Upper Tweeddale NSA, providing the setting for Peebles and the Tweed Valley. All sides are surrounded by main roads and the northwestern edge is visible from the main roads between Edinburgh and the Clyde Valley.</p> <p><b>Development Capacity:</b> Due to higher visual sensitivity and landscape value, the Eddleston/ Lyne Interfluve area has a low underlying capacity for turbines at the lower end of the 50-80m range in small groups within the central areas of the LCA. However, the consent of Cloich Forest windfarm has occupied all capacity for larger turbines; this being underlined by the simultaneous dismissal of nearby Hag Law windfarm. Turbines &lt;50m should be sited around the edges, where they are well removed from the consented windfarm and can be visually associated with farmsteads, individual properties and small settlements or where they follow agricultural patterns in the landscape. No turbines in the southeastern corner due to landscape designations and distinctive fortified hills.</p>
										Max. Numbers in Group	1-3	1-3					
										Min Group Separation Distances (km)	1-2	3-5					
<b>3. Plateau Outliers: (ii) Broughton Heights</b>																	
Med	Med/High	Med/High	High						There are no turbines or windfarms within the Broughton Heights LCA.	<i>Uplands with No Wind turbines</i>	<i>Uplands with Occasional Wind Turbines/ No Wind Turbines</i>						<p><b>Landscape Analysis:</b> Similar to Eddleston/ Lyne Interfluve but with higher hills and less forestry. All of the LCA is designated: as part of the Tweedsmuir Uplands SLA in the north and Upper Tweeddale NSA in the south. The John Buchan Way passes through the LCA. All sides are surrounded by main roads and the northwestern edge is visible from the main roads between Edinburgh and the Clyde Valley.</p> <p><b>Development Capacity:</b> Due to higher visual sensitivity and high landscape value, Broughton Heights has no capacity for larger scale turbines and only low capacity for turbines under 50m, due the SLA and NSA designations and prominent outer slopes forming the skyline from lower elevations around the LCA. The outer slopes are prominent and visible from the valleys below, especially to the south and west of the LCA where they form the skyline of the NSA to the south and from the lower elevations to the west. These more prominent areas have no capacity for turbine development.</p>
										Max. Numbers in Group	1-3	1-3					
										Min Group Separation Distances (km)	1-2	3-5					
<b>4. Southern Uplands with Scattered Forest: (i) Broadlaw Group</b>																	
Med	Med/High	Med	High						Currently Glenkerie windfarm (11x100/115m operational turbines and 6x125m consented) located within the	<i>Uplands with Occasional Wind Turbines and Uplands with no Wind Turbines (small</i>	<i>Mostly Uplands with No Wind Turbines. Small area in west Uplands with Wind Turbines and Wind</i>						<p><b>Landscape Analysis:</b> A large scale rolling hill landscape with steep sided valleys and scattered coniferous forest. Several lochs/ reservoirs. The north eastern area of this LCA contains part of a NSA, the vast majority is covered by the extensive Tweedsmuir Uplands SLA and there is the Talla-Hart Fell Wild Land Area. The Southern Upland Way passes through the central/ eastern area of the LCA.</p>

Key:  No Capacity  Low Capacity  Medium Capacity  High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
									western area of the LCA near the border with South Lanarkshire to the north of Tweedsmuir. Clyde and extension windfarm lies on the western boundary with 3 turbines lying within Scottish Borders.  3nr 15-35m turbines above the Yarrow Valley in the east.	<b>western area of Landscape with Wind Turbines)</b>	<b>Turbine Landscape</b>						<p><b>Development Capacity:</b> The western edge of this LCA is a <i>Landscape with Wind Turbines/ Wind Turbine Landscape</i> influenced by Clyde windfarm lying mainly outwith the SBC area. The majority of the internal area has topographical containment created by a large upland area and as a result has lower intervisibility. However, spur like landforms between river valleys increases prominence of eastern areas, with visual sensitivity increased by the presence of the Southern Upland Way. Extensive landscape designations, wild land qualities, prominent hilltops and recreational use reduces the capacity of this landscape for windfarm development, as demonstrated by the refusals on appeal of the Minch Moor and Broadmeadows proposals between the Tweed and Yarrow valleys. This large area with no windfarms or turbines should remain as a largely undeveloped gap between clusters of upland turbine development to the west and in the north and east of Scottish Borders. Capacity for the largest turbines only exists to the west of the A701 where these would be seen as an extension to the existing Clyde windfarm cluster within South Lanarkshire. The remaining area has very limited capacity for smaller size turbines as individuals or small groups associated with lower ground at farmsteads, individual properties and small groupings of properties.</p> <p><b>Significant Non Landscape Constraints:</b></p> <ul style="list-style-type: none"> <li>• The southern tip of the LCA lies within the Eskdalemuir EKA Seismological Array 10km exclusion zone and the rest lies in the Statutory Safeguard Area</li> <li>• The large Tweedsmuir Hills SSSI lies east of the upper Tweed</li> </ul>
											Max. Numbers in Group	1-3	1-3	1-3	5-10	5-10	
											Min Group Separation Distances (km)	1-2	3-5	3-5	5-10	5-10	
<b>4. Southern Uplands with Scattered Forest: (ii) Dun Knowe Group</b>																	
Med	Low/Med	Med	Med						Currently one medium sized windfarm consisting of 10x121m turbines to the west of Hawick (Langhope Rig).	<b>Central area of Uplands with Occasional Wind Turbines surrounding area is Uplands with No Wind Turbines</b>	<b>Uplands with Wind Turbines/ Occasional Wind Turbines</b>						<p><b>Landscape Analysis:</b> This LCA, while extensive open hill country, is considerably lower and less wild or dramatic than Broad Law LCA. Most of the forest is concentrated centrally and highest hills to the west. There are no designations or long distance footpaths and there is little human settlement within and nearby.</p> <p><b>Development Capacity:</b> The Dun Knowe Group has limited existing turbine development and could accommodate additional development with larger size turbines. The surrounding topography provides a degree of topographical containment for the largest turbines and intervisibility within the area is generally fairly low. However significant separation from Langhope Rig and careful siting would be required to avoid the cumulative issues leading to the dismissal of the Barrel Law application. Forestry removal should be mitigated, preferably through compensatory planting. Smaller scale turbines can be accommodated as individual turbines or as small groups or 3 or less and should be located alongside farmsteads and residential properties and associated with farm/domestic generation.</p> <p><b>Significant Non Landscape Constraint:</b> The LCA lies within the Eskdalemuir EKA Seismological Array Statutory Safeguard Area</p>
											Max. Numbers in Group	1-3	1-3	1-3	5-10	5-10	
											Min Group Separation Distances (km)	1-2	3-5	3-5	5-10	5-10	

Key: ○ No Capacity ○ Low Capacity ○ Medium Capacity ● High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel't'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
<b>4. Southern Uplands with Scattered Forest: (iii) Cauldcleuch Head Group</b>																	
Med	Low/Med	Med	Med	○	○	○	○	○	Windy Edge windfarm (7x125m/ 2x110m) has been consented on appeal.	<b>Uplands with Wind Turbines/ No Wind Turbines</b>	<b>Uplands with Occasional Wind Turbines, western area Uplands with Wind Turbines</b>	○	○	○	○	○	<p><b>Landscape Analysis:</b> This LCA is extensive open hill country with rolling hill landform and steep sided valleys. The hills are more defined and taller than in Dun Knowe LCA, However, they are of a significantly lesser scale than Broad Law LCA. There is relatively little forestry, with extensive areas visible in neighbouring LCAs. There are no designations or long distance footpaths and there is little human settlement within or nearby. The area has a low intervisibility.</p> <p><b>Development Capacity:</b> There is remaining capacity for larger turbines in the more elevated upland areas well separated from Windy Edge windfarm and where topographical containment reduces intervisibility. However, the steepness of landforms may restrict the potential for successfully accommodating larger groups and for turbines &gt;120m. Particular consideration must also be given to the setting of Hermitage Castle. There is capacity for smaller scale turbines as individual turbines or small groups of 3no or less sited alongside farmsteads and individual properties in lower areas, to be seen as domestic or farm scale energy generation.</p> <p><b>Significant Non Landscape Constraints:</b></p> <ul style="list-style-type: none"> <li>• The area south of Hermitage contains a large SSSI/ SPA</li> <li>• The southern tip of the LCA lies within the Eskdalemuir EKA Seismological Array 10km exclusion zone and the rest lies in the Statutory Safeguard Area</li> </ul>
<b>5. Southern Uplands Forest Covered: (i) Craik</b>																	
Med	Low/Med	Low/Med	Med/High	○	○	○	○	○	No wind turbines lie within or close to this area.	<b>Uplands with No Wind Turbines</b>	<b>Uplands with Wind Turbines</b>	○	○	○	○	○	<p><b>Landscape Analysis:</b> LCA is extensive area of rolling hill landform and steep sided valleys cloaked with commercial coniferous forestry. There are no designations or long distance footpaths and there is little human settlement, although the Southern Uplands Way passes along the northwestern edge. The area has a low internal intervisibility, although the edges are visible from surrounding hill areas.</p> <p><b>Development Capacity:</b> This LCA contains no landscape designations, low internal intervisibility and is a sparsely populated area of the Scottish Borders. Due to these factors there is capacity for groups of larger turbines. Forestry removal should be mitigated, preferably through compensatory planting. Smaller sized turbines should be sited alongside individual farmsteads and properties and visually be read as domestic/ farm scale power generation. Larger turbines can be accommodated in the larger scale elevated upland areas and take advantage of the topographical containment created by the landscape and screening by trees. The presence of the Southern Upland Way reduces capacity in the western part of this LCA.</p> <p><b>Significant Non Landscape Constraint:</b> The eastern half of the LCA lies within the Eskdalemuir EKA Seismological Array 10km exclusion zone and the rest lies in the Statutory Safeguard Area</p>

Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design)
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
<b>8. Rolling Farmland: (iii) Minto Hills</b>																	
Med/High	Med/High	Med/High	Med/High	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	No wind turbines lie within or close to this area.	<i>Upland Fringe with No Wind Turbines</i>	<i>Upland Fringe with Occasional Wind Turbines</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Medium scale farmland with undulating topography and large rectilinear fields enclosed by walls or hedges. Boundary trees, shelterbelts and small woodlands. Distinctive Minto Hills on SE edge are part of the Teviot Valley SLA. Network of lanes, tracks and scattered farms and houses. The A7 tourist route passes through the western edge.</p> <p><b>Development Capacity:</b> Due to the medium scale, open and relatively elevated lowland/ upland fringe character of this LCA there is no capacity for larger wind energy schemes. Occasional smaller turbines could be accommodated as individuals or small groups, especially when associated with a farmstead. There is no capacity for turbines in the vicinity of the distinctive Minto Hills</p>
												1-3	1-3				
												1-2	3-5				
<b>10. Grassland with Rock Outcrops: (i) Whitehaugh</b>																	
Med	Med	Med	Med	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	No wind turbines lie within or close to this area.	<i>Upland Fringe with No Wind Turbines</i>	<i>Upland Fringe with Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> These LCAs together with their separating valleys provide a setting for Hawick, lying between the town and larger scale upland areas. Medium scale farmland of diverse character with small scale enclosed areas between ridges and knolls. Landform has characteristic angular ridged and rocky undulations. Varied size fields of mainly improved pasture enclosed by stone dykes, fences and hedgerows. Field boundary trees, shelterbelts and small woodlands. Crossed by often winding lanes. Scattered farms and hamlets.</p> <p>The Whitehaugh LCA lies north and west of Hawick. It is more open and rocky than the other LCAs and has views south over Hawick and Teviotdale to the Southern Uplands and The Cheviot. The area is crossed by an electricity transmission line.</p> <p><b>Development Capacity:</b> There is medium capacity for smaller turbines individually or as small groups. There is less capacity on the prominent and open south eastern slopes above Hawick and turbines should have a visual connection with a farmstead or dwelling. Avoid proximity of turbines to the transmission line. Due to high intervisibility within this LCA there is no capacity for larger turbines.</p>
												1-3	1-3				
												1-2	3-5				
<b>10. Grassland with Rock Outcrops: (ii) Midgard</b>																	
Med	Med	Med	Med	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	No wind turbines lie within or close to this area.	<i>Upland Fringe with No Wind Turbines</i>	<i>Upland Fringe with Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> See above for type description</p> <p>The Midgard LCA lies southeast of Hawick. It is more tree covered and has more pronounced rock outcrops and knolls than the other <i>Grassland with Rock Outcrop</i> LCAs. It has a high number of hillforts. Teviot Valley SLA designation overlaps the northern corner of the LCA.</p> <p><b>Development Capacity:</b> There is medium capacity for smaller turbines in the central, eastern and southern area of this LCA in areas with less external visibility, away from</p>
												1-3	1-3	1			

Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
											<i>Min Group Separation Distances (km)</i>	1-2	2-3	3-5			the more prominent slopes facing Hawick. On the outer slopes above valleys capacity is lower and turbines should have a visual connection with a farmstead or dwelling. The central area could accommodate smaller turbines in small groups or the very occasional larger single turbine. There is no capacity for windfarm developments due to the scale and diversity of the landscape and intervisibility from Hawick.
<b>10. Grassland with Rock Outcrops: (iii) Allan Water</b>																	
Med	Med	Med/Low	Med	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	2nr 15-35m wind turbines lie in the east of this area.	<i>Upland Fringe with No Wind Turbines</i>	<i>Upland Fringe with Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<b>Landscape Analysis:</b> See above for type description The Allan Water LCA lies south of Hawick. It is more rolling with fewer pronounced rock outcrops and knolls than the other <i>Grassland with Rock Outcrop</i> LCAs. It is characterised by a number of reservoirs and grades into an upland area to the south. <b>Development Capacity:</b> The more central and southern areas of this LCA have a lower intervisibility from Hawick, transport routes and viewpoints, and therefore have capacity for turbines below 80m in a smaller sized windfarm. Large windfarms would not be suitable. The northern, eastern and western outer slopes of this LCA have low capacity for individual smaller sized turbines only. These would be best accommodated in the landscape if associated with individual properties or farmsteads. Capacity here is reduced by the greater intervisibility from settlements and traffic routes in the valleys below.
											<i>Max. Numbers in Group</i>	1-3	1-3	1-5			
											<i>Min Group Separation Distances (km)</i>	1-2	2-3	5-10			
<b>10. Grassland with Rock Outcrops: (iv) Chisholme</b>																	
Med	Med	Med/High	Med	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	No wind turbines lie within or close to this area.	<i>Upland Fringe with No Wind Turbines</i>	<i>Upland Fringe with Occasional Wind Turbines</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<b>Landscape Analysis:</b> See above for type description. The Chisholme LCA lies southwest of Hawick. It is the smallest of the <i>Grassland with Rock Outcrops</i> areas and lies between two river valleys. <b>Development Capacity:</b> There are no landscape designations within this LCA and only the occasional individual farmstead development present. The north eastern slopes are more prominent to Hawick but a sufficient distance from Hawick to accommodate individual smaller turbines. These should be sited to reduce visual impacts and be visually connected to farmsteads.
											<i>Max. Numbers in Group</i>	1					
											<i>Min Group Separation Distances (km)</i>	2-3					
<b>11. Grassland with Hills: (iii) Eildon Hills</b>																	
High	High	High	High	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There is one 15-35m turbine lying between Selkirk and St Boswells	<i>Upland Fringe with No Wind Turbines</i>	<i>Upland Fringe with No Wind Turbines/ Occasional Wind Turbines in SW</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<b>Landscape Analysis:</b> A diverse landscape type characterised by varied landforms from lightly populated improved pastureland with smooth undulations or elongated ridges to occasional prominent conical hills. The triple coned Eildon Hills are regionally prominent landmarks and viewpoints and recognised for scenic qualities by NSA designation. Most of the rest of the area is undesignated, although the northwestern edge lies in the Tweed Ettrick and Yarrow Confluence SLA and the northern edge in a Countryside Around Towns area. The Borders Abbey Way travels through the more
											<i>Max. Numbers in Group</i>	1-3	1-3				

Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
											Min Group Separation Distances (km)	2-3	3-5				open undulating areas of the LCA and the St Cuthberts Way through the Eildon Hills. An electricity transmission line passes through the middle of the LCA, close to the NSA. <b>Development Capacity:</b> There is no capacity for development on or around the NSA due to the designation. However, there is limited capacity for individual and small groups of smaller turbines across the rest of the area; particularly towards the south and west. Turbines will be better accommodated in this landscape if situated alongside farmsteads and individual properties and sited to reduce impacts. Avoid proximity of turbines to the transmission line or in the line of key views to the Eildon Hills.
<b>22. Upland Valley with Pastoral Floor: (i) Upper Tweed/ Biggar Water</b>																	
Med/ High	Med/ High	Med/ High	High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There are no turbines within the valley, although the turbines of Glenkerie windfarm are visible less than 1km to the west of the Tweed valley.	River Valley with No Wind Turbines	River Valley with No Wind Turbines/ with Occasional Wind Turbines	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<b>Landscape Analysis:</b> Medium to small scale valleys strongly enclosed with steep sides of rough pasture grading into uplands; with flat floors of enclosed improved pasture. Well settled with farms, houses and occasional villages. Some are important transport corridors. The Upper Tweed/ Biggar Water is broader and more open than most of the type at the Biggar Water end but becomes narrower and more dramatically enclosed at the southern end of the Tweed. The central part, including the village of Broughton, lies in the Upper Tweeddale NSA and most of the rest within the Tweedsmuir Uplands SLA. <b>Development Capacity:</b> This area has very limited capacity for only the smallest scale of single turbine development below 20-25m due to the openness of the landscape, views from Tinto Hill and due to the scenic qualities as recognised by designation as part of a larger SLA and NSA. Turbines should be associated with farms or dwellings.
											Max. Numbers in Group	1					
											Min Group Separation Distances (km)	3-4					
<b>22. Upland Valley with Pastoral Floor: (ii) Lyne Water</b>																	
Med/ High	Med/ High	Med/ High	Med/ High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Three 15-35m turbines at western end of Scotstoun Bank.	River Valley with No Wind Turbines/ Occasional Wind Turbines in W.	River Valley with Occasional Wind Turbines/ southern section No Wind Turbines	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<b>Landscape Analysis:</b> see above for type description. The Lyne valley is broader than some others at the northern but becomes narrow and enclosed at the southern end, which lies in the Upper Tweeddale NSA. The slopes south of the A72 lie within the Tweedsmuir Uplands SLA. <b>Development Capacity:</b> This area has no capacity in the southern area for turbines due to the NSA designation. However the northern area has capacity for individual or small groups of smaller turbines where these are visually read as part of a farmstead development.
											Max. Numbers in Group	1-3					
											Min Group Separation Distances (km)	2-3					
<b>22. Upland Valley with Pastoral Floor: (iii) Manor Water</b>																	
Med/ High	Med/ High	Med/ High	High	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	No turbines within this area.	River Valley with No Wind Turbines	River Valley No Wind Turbines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<b>Landscape Analysis:</b> see above for type description. This valley is narrower and much more enclosed by the surrounding hills. It has only a

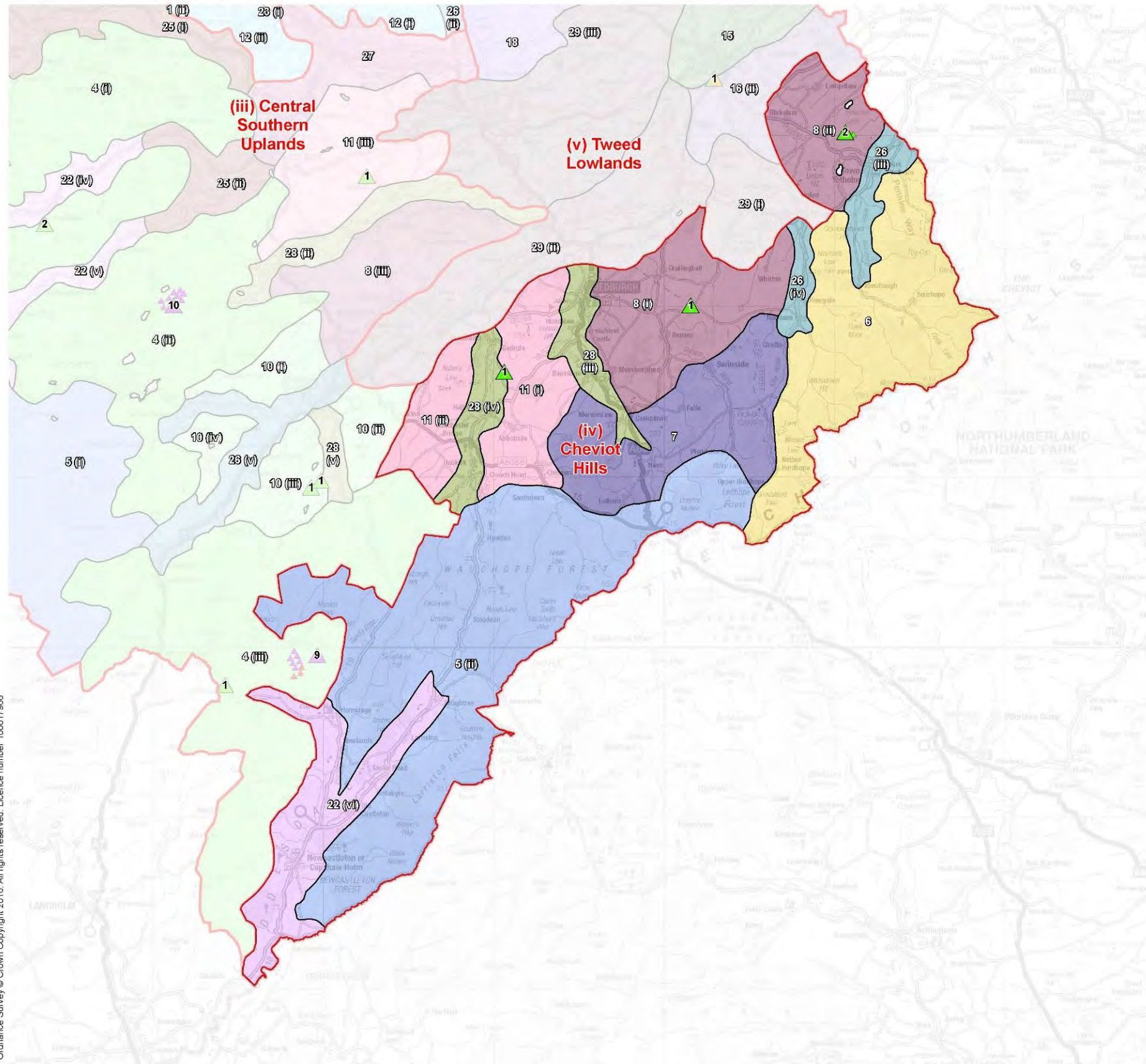
Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
																	<p>minor dead end road and the valley ends amongst steep hills. It lies mainly within the Upper Tweeddale NSA designation, the remaining areas within the Tweedsmuir Uplands SLA.</p> <p><b>Development Capacity:</b> This area has no capacity for turbines of 15m and over due to the NSA designation covering most of its extent.</p>
<b>22. Upland Valley with Pastoral Floor: (iv) Upper Yarrow and (v) Upper Etrick</b>																	
Med/High	Med/High	Med/High	Med/High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	No turbines within these areas, although two 15-35m turbines lie in uplands close to the Upper Yarrow.	River Valley with No Wind Turbines	River Valley with Occasional Wind Turbines	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> see above for type description.</p> <p>These valleys are narrow and enclosed by the surrounding hills, although with occasional wider areas and longer views afforded up and down the valley. The northern side of the Upper Yarrow LCA is part of the large Tweedsmuir Uplands SLA.</p> <p><b>Development Capacity:</b> These areas have very limited capacity for smaller turbines below 20-25m, in wider locations where these are visually read as part of a farmstead development and back-clothed against larger scale hillsides.</p>
												Max. Numbers in Group	1				
												Min Group Separation Distances (km)	2-3				
<b>25. Upland Valley with Woodland: (i) Middle Tweed</b>																	
High	High	High	High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	No turbines lie within or close to this area.	River Valley with No Wind Turbines	River Valley with Occasional/ No Wind Turbines	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> A meandering river valley strongly enclosed by rounded upland hills, with a flat valley floor of varied width. Characterised by extensive woodland, settlements and estate land with country mansions and tower houses.</p> <p>The Middle Tweed valley contains the significant settlements of Peebles and Innerleithen and a number of smaller settlements and numerous individual dwellings and farmsteads. The valley floor also contains the busy A72 trunk road, from which mid to long distance views are afforded up and down the valley and onto the prominent slopes that overlook the valley. The valley west of Peebles lies within the Upper Tweeddale NSA and the rest within the Tweed Valley and Tweed, Etrick and Yarrow Confluences SLA. To the east the valley is narrow and steep sided in places.</p> <p><b>Development Capacity:</b> The western area of this LCA has no capacity due to the NSA designation There is low capacity within wider parts of the flat/ gently sloping valley floor for individual smaller turbines where these can be visually associated with farmsteads or, where appropriate, other developments. Turbines should be sited to minimise visual impacts. The valley slopes have capacity only for carefully sited turbines, avoiding prominent spurs. There is no capacity in the eastern end which is narrow and crossed by the Southern Upland Way via the Fairilee designed landscape.</p>
												Max. Numbers in Group	1				
												Min Group Separation Distances (km)	2-3				
<b>25. Upland Valley with Woodland: (ii) Lower Etrick/ Yarrow</b>																	
High	High	High	Med/High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	No turbines lie within or close to this area.	River Valley with No Wind Turbines	River Valley with Occasional/ No Wind Turbines	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> See above for description of type.</p> <p>The Lower Etrick/ Yarrow is a confluence of the two valleys just west of Selkirk. A key feature is the designed landscape and house of Bowhill. Other estate landscapes also</p>

Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT			PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)									
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
											Max. Numbers in Group	1					characterise the hillsides. The valleys contain smaller settlements and numerous individual dwellings and farmsteads and are traversed by roads passing west. The valleys afford medium distance views along the valley floor and lie mainly within the Tweed, Ettrick and Yarrow Confluence SLA.  <b>Development Capacity:</b> Due to the SLA designation and presence of designed landscapes capacity is limited to individual smaller turbines. These should be located on the valley floor where they can be associated with individual farmsteads and must be sited to reduce visual impacts, there is no capacity for turbine development on the more elevated slopes or within the Yarrow Valley due to increased prominence and the more enclosed nature of the Yarrow valley.
<b>26. Pastoral Upland Fringe Valley: (v) Borthwick Water/ Upper Teviot</b>																	
Med/ High	Med/ High	Med/ High	Med/ High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	No turbines lie within or close to this area.	River Valley with No Wind Turbines	River Valley with Occasional Wind Turbines	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<b>Landscape Analysis:</b> Medium scale well settled pastoral valley set between low grassland hills with shallow enclosing slopes. The Teviot contains the town of Hawick and the busy A7 trunk road to Carlisle, as well a high voltage overhead line. The Borthwick contains a minor road and is quieter, more enclosed and less developed. There are no landscape designations.  <b>Development Capacity:</b> There is limited capacity for individual smaller sized wind turbines within the broader simpler areas of the valley landscape. There is no capacity for turbines on the more prominent steeply sided slopes of the valley or within the more enclosed areas of the Borthwick Water Valley. Turbines should be sited in the landscape so they are associated with a farmstead or individual property. Care should be taken to avoid cumulative effects with the overhead lines.
											Max. Numbers in Group	1					
											Min Group Separation Distances (km)	2-3					
<b>27. Upland Fringe Valley with Settlements: Tweed/ Gala/ Ettrick Confluence</b>																	
High	Med/ High	Med/ High	High	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	No turbines lie within or close to this area.	River Valley with No Wind Turbines	River Valley with Occasional/ No Wind Turbines	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<b>Landscape Analysis:</b> Medium to large scale densely settled flat bottomed enclosed by the slopes of grassland hills and is a well ordered patchwork of settlement, mixed farmland and woodland. It is the central population, transport and river drainage hub for the Borders. The eastern area lies within the Eildon and Leaderfoot NSA and part of the west within the Tweed, Ettrick and Yarrow Confluence SLA. Several long distance paths including the Southern Upland Way pass through and the area is overlooked by the Eildon Hills and Scott's View.  <b>Development Capacity:</b> Due to the amount of settlement, landscape designations and views within and across this broad valley landscape, there is only very limited capacity for smaller sized wind turbines. For these reasons the area has only very limited capacity for individual smaller turbines located outside the NSA. Turbine development will be best accommodated alongside industrial/ business facilities or farmsteads and avoiding the narrowest parts of the valleys such as the Tweed at Fairniee.
											Max. Numbers in Group	1	1				
											Min Group Separation Distances (km)	2-3	3-5				



Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel't'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
<b>28. Wooded Upland Fringe Valley: (ii) Ale Water</b>																	
Med/High	Med/High	Med/High	Med/High	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	No turbines lie within or close to this area.	<i>River Valley with No Wind Turbines</i>	<i>River Valley with Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Small scale often narrow meandering valley with enclosing slopes increasingly shallow as the Ale Water drains from the Southern Uplands to the Tweed Lowlands. Valley floor is small to medium scale farmland with extensive tree cover on steeper slopes and by the river. Set between rounded grassland and farmland hills. Small settlements at Ashkirk, Lilliesleaf and Ancrum. The LCA has no landscape designations although there are a number of designed landscapes.</p> <p><b>Development Capacity:</b> This small scale intimate sheltered character of this LCA has limited capacity for individual or small groups of smaller turbines only. Turbines should be located away from the smallest scale most intimate valley floor areas and away from the more prominent sideslopes. The area around and west of the A7 is of a particularly intimate scale and well settled. Turbines should not exceed 20-25m. There is no capacity for commercial scale developments. The setting of the settlements and designed landscapes should be respected.</p>
											Max. Numbers in Group	1-3	1				
											Min Group Separation Distances (km)	2-3	3-5				
<b>28. Wooded Upland Fringe Valley: (v) Slitrig Water</b>																	
Med/High	Med/High	Med/High	Med/High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	No turbines lie within or close to this area, but 2nr 15-35m lie to the west.	<i>River Valley with No Wind Turbines</i>	<i>River Valley with Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Small scale narrow meandering valley with particularly steep enclosing slopes to the east. Valley floor is small to medium scale farmland with extensive tree cover on steeper slopes and by the river. Set between rocky grassland hills. There are numerous individual farmsteads and properties and the landscape is tightly meandering with spurs and trees interrupting views. There are no settlements except for the southern end of Hawick at the lower end. The LCA has no landscape designations although there are a number of core paths and cycle routes, including an abandoned railway.</p> <p><b>Development Capacity:</b> The small scale tightly enclosed character of this LCA has limited capacity for individual smaller turbines only. Turbines should be located away from the smallest scale most intimate valley floor areas and away from the more prominent sideslopes. There is no capacity for commercial scale developments. The setting of the settlements and designed landscapes should be respected.</p>
											Max. Numbers in Group	1-3					
											Min Group Separation Distances (km)	2-3					

**Figure 6.1 (iv) - Cheviot Hills**



**Legend**

- Regional Landscape Areas
- Landscape Character Areas
- Windfarm: Status, Height Category**
- ▲ Operational / Consented, Cat 1: 15 to <35m
- ▲ Operational / Consented, Cat 2: 35 to <50m
- ▲ Operational / Consented, Cat 3: 50 to <80m
- ▲ Operational / Consented, Cat 4: 80 to <120m
- ▲ Operational / Consented, Cat 5: 120m+

**Landscape Character Areas:**

- 5 - Southern Uplands Forest Covered
- (ii) Wauchope / Newcastleton
- 6 - Cheviot Uplands
- 6 Cockslaw Group
- 7 - Cheviot Foothills
- 7 Falla Group
- 8 - Rolling Farmland
- (i) Oxnam
- (ii) Lempitlaw
- 11 - Grassland with Hills
- (i) Bonchester / Dunion
- (ii) Rubers Law
- 22 - Upland Valley with pastoral Floor
- (vi) Liddel Water
- 25 - Upland Valley with Woodland
- (i) Middle Tweed
- (ii) Lower Ettrick / Yarrow
- 26 - Pastoral Upland Fringe Valley
- (iii) Bowmont Water
- (iv) Kale Water
- 28 - Wooded Upland Fringe Valley
- (iii) Jed Water
- (iv) Rule Water

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**Table 6.1(iv). Summary of Landscape Capacity and Cumulative Effects and Guidance for Future Wind Energy Development – Cheviot Hills**

Key:  No Capacity  Low Capacity  Medium Capacity  High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel't'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
<b>5. Southern Uplands Forest Covered: (ii) Wauchope/ Newcastleton</b>																	
Med	Low	Low/ Med	Med						No wind turbines lie within or close to this area.	<b>Uplands with No Wind Turbines</b>	<b>Uplands with Wind Turbines/ Occasional Wind Turbines/ No Wind Turbines near Carter Bar</b>						<p><b>Landscape Analysis:</b> An extensive area of large scale rolling or undulating hill landform and occasional small valleys cloaked with commercial coniferous forestry. Occasional prominent conical hill landforms. There is little human settlement and two or three minor roads together with the A68 in the east. Most of the area is not designated although the eastern end is part of the Cheviot Foothills SLA, the border crossing of Carter Bar and is adjacent to the Northumberland National Park. The area has a low internal intervisibility, although the edges are visible from surrounding hill areas.</p> <p><b>Development Capacity:</b> Much of this LCA has the potential to accommodate occasional well-separated windfarms with larger turbines due to the upland topography creating containment, a sparse population and a lower degree of intervisibility from settlements, transport routes and viewpoints. There is also limited scope for siting individual or small groups of smaller sized turbines alongside individual farmsteads. This should not become predominantly a <i>Landscape with Wind Turbines</i>, therefore individual windfarms and turbines should be well separated. Care should be taken to avoid siting next to prominent hilltop landforms or viewpoints. The eastern part has a much more limited capacity due to its SLA designation and its location relatively close to the Northumberland National Park. The Carter Bar Border viewpoint has a much higher local sensitivity with no capacity in the area immediately in the vicinity of this iconic viewpoint or in the short to mid-range view looking north. In the south, there are tourism related sensitivities along the border near the Kielder area. Finally, significant windfarm development would require extensive felling of forestry, which would require compensatory planting.</p> <p><b>NB. The LCA lies within the Eskdalemuir EKA Seismological Array Statutory Safeguard Area</b></p>
												1-3	1-3	1-3	5-15	5-15	
												1-3	1-3	3	5-10	5-10	
<b>6. Cheviot Uplands: Cocklaw Group</b>																	
Low/ Med	Med/ High	Med/ High	High						No wind turbines lie within or close to this area.	<b>Uplands with No Wind Turbines</b>	<b>Uplands with Occasional Wind Turbines/ No Wind Turbines in higher or northern areas</b>						<p><b>Landscape Analysis:</b> Large scale distinctive dome and cone shape hill ranges, often with rugged peaks and rocky sides, dissected by small steep sided valleys and drainage lines, rising to the English border. Land cover is mainly rough grassland with patches of bracken and scrub, with occasional blocks of woodland. There is scattered settlement and only minor dead end roads. The area falls entirely within the Cheviot Foothills SLA, is adjacent to Northumberland National Park and the regional high point of The Cheviot. The most northern section of the Pennine Way passes through the northern end.</p> <p><b>Development Capacity:</b> There is no capacity within any part of this LCA for larger turbines or a windfarm. This is due to the distinctive nature of the landform, the</p>
												1	1				

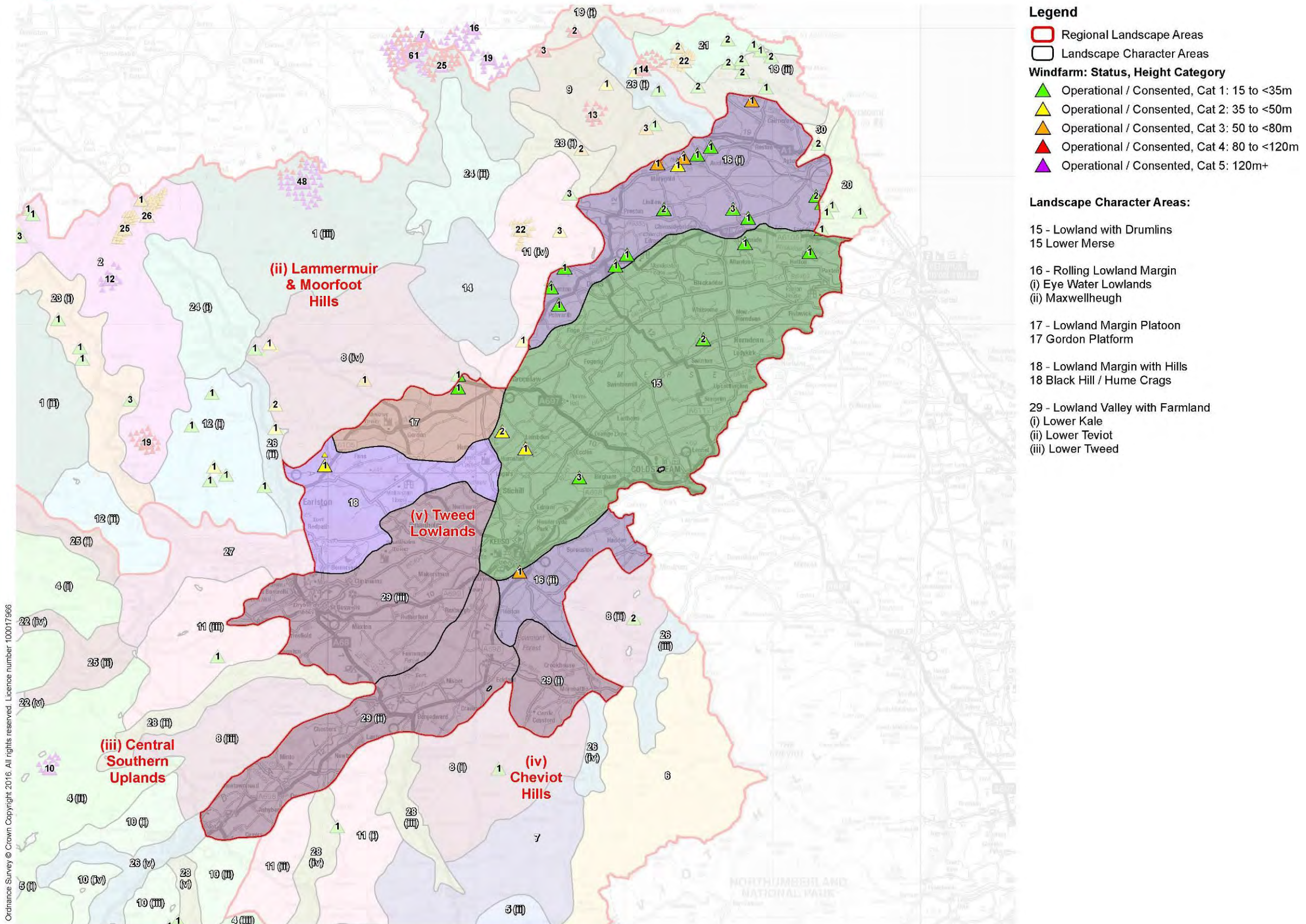
Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
											Min Group Separation Distances (km)	3-5	3-5				proximity of Northumberland National Park and key visual receptors including the Pennine Way, The Cheviot Hill and the nearby Carter Bar viewpoint on the A68 England – Scotland border which provide popular panoramic viewpoints over this area. There is however limited capacity for smaller sized turbines. This capacity is very much restricted to the lower enclosed land where these would be associated with individual farmsteads and properties and read as small scale local energy generation.
<b>7. Cheviot Foothills: Falla Group</b>																	
Med/High	Med/High	Med/High	Med/High	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	No wind turbines lie within or close to this area.	Uplands with No Wind Turbines	Uplands with Occasional Wind Turbines	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Large scale undulating/ rolling landscape with occasional prominent dome shape hills and rocky outcrops. Land cover is mainly grassland with a mixture of enclosed improved pasture separating hills of open and rough pasture. There are also large blocks of forestry. There is scattered settlement and mainly minor roads, although the A68 passes through ascending to Carter Bar. The southeastern area falls within the Cheviot Foothills SLA and the western tip within the Teviot Valleys SLA. This relatively open landscape has high internal and external visibility. The Carter Bar viewpoint has an open panoramic view across the area.</p> <p><b>Development Capacity:</b> There is only low capacity for smaller turbines, individually or in small groups. Turbines should be sited away from distinctive steeper landforms and sensitive visual receptors around the approach to Carter Bar. Turbines should be sited in areas with lower intervisibility and associated with individual farmsteads and dwellings where they can be read as small scale local energy generation.</p>
											Max. Numbers in Group	1-3	1				
											Min Group Separation Distances (km)	2-3	3-5				
<b>8. Rolling Farmland: (i) Oxnam</b>																	
Med/High	Med	Med/High	Med/High	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	One 15-35m wind turbine lies within this area.	Upland Fringe with No Wind Turbines	Upland Fringe with Occasional Wind Turbines	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Medium scale farmland with undulating/ rolling topography and large rectilinear fields of mixed agriculture enclosed by fences and/or hedges. Tree cover comprises conifer shelterbelts and plantations. Network of lanes, tracks and scattered farms, houses and hamlets. Eastern area is higher and more open with few houses, larger fields and poorer pasture. Limited internal visibility but the area is overlooked by higher ground to the south and the edges are seen from surrounding valleys. Largely undesignated although western edge overlaps the Teviot Valleys SLA, overlooking Jeburgh and the Jed Water valley.</p> <p><b>Development Capacity:</b> Due to the medium scale, open and relatively elevated lowland/ upland fringe character of this LCA there is no capacity for larger wind energy schemes. Smaller turbines could be accommodated as individuals or small groups, especially when associated with a farmstead. Occasional larger turbines, below 80m height, could be accommodated in the higher, larger scale areas to the east. However, further to the refusal of the proposed Whitton windfarm (5x110m) there is no capacity for a commercial size scheme. There is very limited scope for siting anything more than the smallest turbines on the outer edges of this area where the landform is more complex and they could affect the setting of settlements.</p>
											Max. Numbers in Group	1-3	1-3	1-3			
											Min Group Separation Distances (km)	1-2	3-5	5-10			

Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
<b>8. Rolling Farmland: (ii) Lempitlaw</b>																	
Med/High	Med	Med/High	Med/High	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Two 15-35m wind turbines lie within this area.	<i>Upland Fringe with No Wind Turbines</i>	<i>Upland Fringe with Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Medium scale farmland with undulating/ rolling topography and large rectilinear fields of mixed agriculture enclosed by fences and/or hedges. Tree cover comprises conifer shelterbelts and deciduous boundary trees. Network of lanes, tracks and scattered farms, houses. Two natural waterbodies. Southeastern area towards Yetholm is higher and more distinctively rolling than the northwestern, with distinctive Yetholm Law. Limited internal visibility but the area is overlooked by higher ground to the south and the edges are seen from surrounding valleys. Largely undesignated although southern corner overlaps the Cheviot Foothills SLA and the Northumberland National Park lies 2km to the east.</p> <p><b>Development Capacity:</b> This area has limited capacity for smaller sized turbines only as individual turbines or as small groups of turbines. There is no capacity for wind farms or for larger turbines. Capacity is reduced in the southeast due to the more distinctive landforms and proximity of settlements and landscape designations.</p>
<b>11. Grassland with Hills: (i) Bonchester/ Dunion</b>																	
Med/High	High	Med/High	Med/High	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There is one 15-35m turbine lying on the western fringe.	<i>Upland Fringe with No Wind Turbines</i>	<i>Upland Fringe with Occasional Wind Turbines/ No Wind Turbines</i>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> A diverse landscape type characterised by varied landforms from elongated ridges to occasional prominent round or conical hills. Dunion Hill provides part of the setting to Jedburgh and Bonchester Hill to Bonchester Bridge. Landuse is mainly pasture, varying from improved enclosed pasture on lower ground to open semi-improved on the highest hills and poorly drained areas. Occasional conifer plantations and shelterbelts. Settlement is mainly scattered houses and farms linked by small roads, although the A6088 and the hamlet of Chesters lie in the southern end. There is high visibility across and to this area. The majority of this area, excepting the southern end, is within the Teviot Valleys SLA.</p> <p><b>Development Capacity:</b> Larger turbines and windfarms are not suitable to this landscape as they will be visible from Jedburgh, the Teviot and Rule Valleys. There is low capacity for individual or small groups of smaller turbines, visually associated with farmsteads and individual dwellings and sited sensitively away from prominent slopes and hilltops to reduce visual impacts.</p>
<b>11. Grassland with Hills: (ii) Rubers Law</b>																	
High	High	High	High	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There are no wind turbines within or close to this area	<i>Upland Fringe with No Wind Turbines</i>	<i>Upland Fringe with No Wind Turbines /Occasional Wind Turbines in fringes and south</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Simpler and less diverse than most of the type; comprising an undulating plateau to the south and the single, regionally prominent, conical hill of Rubers Law in the north. Landuse is mainly pasture, varying from large rectilinear fields of improved pasture on lower ground around Rubers Law to open unimproved areas on Rubers Law and poorly drained plateau to the south. Occasional conifer plantations</p>

Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																		
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)								
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design)	
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m		
																		and shelterbelts. Settlement is very sparsely distributed houses and farms linked by small roads. The A6088 crosses the southern end. High visibility across and towards this area, particularly Rubers Law. The area north of the A6088 is within the Teviot Valleys SLA. <b>Development Capacity:</b> Turbines and windfarms are not suitable to this landscape character area as they will be highly visible from all surrounding areas and will be seen in the context of Rubers Law.
<b>22. Upland Valley with Pastoral Floor: (vi) Liddel Water</b>																		
Med/ High	Med/ High	Med/ High	Med/ High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There are no turbines within or close to this area.	<i>River Valley with No Wind Turbines</i>	<i>River Valley with No Wind Turbines/ with Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Medium scale valley enclosed with steep sides of rough pasture grading into uplands; with flat floors of enclosed improved pasture. Well settled with farms, houses and occasional villages. Some are important transport corridors.</p> <p>The Liddel Water is broader and more open with shallower, low gradient enclosing slopes than most of the type at the southern end but becomes narrower and more dramatically enclosed in its upper reaches and tributaries. Views from valley sides are open and long but are restricted by trees on the floor. Newcastleton is a distinctive village in the lower reaches and the upper reaches of the Hermitage Water are the setting for Hermitage Castle. There are no landscape designations.</p> <p><b>Development Capacity:</b> This area has limited capacity for only the smallest scale of turbine development due to the openness of the landscape and shallow enclosing slopes in lower reaches. Turbines should be associated with farmsteads. The setting of Hermitage Castle should be respected.</p>	
												Max. Numbers in Group	1-3					
												Min Group Separation Distances (km)	3-4					
<b>26. Pastoral Upland Fringe Valley: (iii) Bowmont Water</b>																		
High/ Med	High/ Med	High/ Med	Med/ High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	No turbines lie within or close to this area.	<i>River Valley with No Wind Turbines</i>	<i>River Valley with Occasional Wind Turbines</i>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Medium scale well settled pastoral valley set between grassy hills. Broad and open at the northern end, providing a setting for Yetholm; with increasingly steep enclosing slopes as it penetrates south into the Cheviot Uplands. Minor roads. The areas south and east of Yetholm lies within the Cheviot Foothills SLA. The Northumberland National Park abuts the northern end and the Pennine Way finishes in Kirk Yetholm.</p> <p><b>Development Capacity:</b> There is limited capacity for individual smaller sized wind turbines within the broader simpler areas of the valley landscape. There is no capacity for turbines on the more prominent steep side slopes or within the more enclosed areas. Turbines should be sited in the landscape so they are associated with a farmstead or individual property. Protect the setting of the two villages and sensitive visual receptors.</p>	
												Max. Numbers in Group	1					
												Min Group Separation Distances (km)	2-3					

Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
<b>26. Pastoral Upland Fringe Valley: (iv) Kale Water</b>																	
Med/High	Med	Med/High	Med/High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	No turbines lie within or close to this area.	River Valley with No Wind Turbines	River Valley with Occasional Wind Turbines	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Medium to small scale well settled pastoral valley set between grassy hills. Broad and open at the northern end, providing a setting for Morebattle; with increasingly steep enclosing slopes as it penetrates south into the Cheviot Uplands. The hamlet of Hownam lies at the southern end, enclosed by hills. A minor road passes through. The east side lies within the Cheviot Foothills SLA.</p> <p><b>Development Capacity:</b> There is limited capacity for individual smaller sized wind turbines within the broader simpler areas of the valley landscape. There is no capacity for turbines on the more prominent steep side slopes or within the more enclosed areas. Turbines should be sited in the landscape so they are associated with a farmstead or individual property. Protect the setting of the two villages and sensitive visual receptors.</p>
											Max. Numbers in Group	1					
											Min Group Separation Distances (km)	2-3					
<b>28. Wooded Upland Fringe Valley: (iii) Jed Water</b>																	
Med/High	High	Med/High	High	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	No turbines lie within or close to this area.	River Valley with No Wind Turbines	River Valley with Occasional Wind Turbines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Small scale meandering valley with undulating enclosing slopes. Highly varied scenery: valley floor is small to intimate scale farmland with extensive tree cover on steeper slopes and by the river. Distinctive sandstone cliffs cut along the river Set between rounded grassland and farmland hills. Jedburgh dominates the northern end, with other small settlements/ farms/ houses throughout. All but the southern end lies within the Teviot Valleys SLA.</p> <p><b>Development Capacity:</b> The small scale intimate sheltered character of this LCA includes the setting of the historic town of Jedburgh and distinctive riverside cliffs. Due to the scale and character and designations there is no capacity for wind turbines over 15m.</p>
											Max. Numbers in Group						
											Min Group Separation Distances (km)						
<b>28. Wooded Upland Fringe Valley: (iv) Rule Water</b>																	
Med/High	Med/High	Med/High	Med/High	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	One 15-35m turbine lies on the eastern edge of this area.	River Valley with No Wind Turbines	River Valley with Occasional Wind Turbines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Small scale meandering valley with varied character; broader and more open in the middle. Set between rocky grassland hills. Enclosing slopes varied but typically not steep although overlooked by distinctive hills: Rubers Law west and Bonchester Hill to the east. There are numerous individual farmsteads and properties, with the small settlements of Bedrule and Bonchester Bridge. The area north of Bonchester Bridge lies within the Teviot Valley SLA and there are a number of non-inventory designed landscapes. The Borders Abbey Way passes through the north.</p> <p><b>Development Capacity:</b> This LCA has a small scale intimate character. There is no capacity for wind turbines over 15m.</p>
											Max. Numbers in Group						
											Min Group Separation Distances (km)						

**Figure 6.1 (v) - Tweed Lowlands**





**Table 6.1(v). Summary of Landscape Capacity and Cumulative Effects and Guidance for Future Wind Energy Development – Tweed Lowlands**

Key:  No Capacity  Low Capacity  Medium Capacity  High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
<b>15. Lowland with Drumlins: Lower Merse</b>																	
Med/High	Med/High	Med/High	Med/High						Several existing/consented wind turbines varying in height from 15- to 80m lie within or close to this area.	Lowlands with Occasional Wind Turbines	Lowlands with Occasional Wind Turbines						<p><b>Landscape Analysis:</b> Extensive, mainly open lowland landscape of large horizontal and limited vertical scale. A strongly rectilinear pattern of arable fields separated by a grid-like network of roads and lanes imposed on a series of uniformly directional but gently undulating parallel ridges and hollows, broken up by the meandering more intimate scale courses of the Blackadder and Tweed. Shelterbelts and woodlands are infrequent and low, leaving wide open views across from the Lammermuir fringes in the north to the Cheviot in the south. Occasional small settlements and many scattered farms and houses, with a number of significant settlements on the margins. There are a number of inventory and other designed landscapes. The area is crossed by a number of overhead electricity lines.</p> <p><b>Development Capacity:</b> Due to the openness and limited vertical scale of this undulating landscape there is capacity only for smaller turbines. These should be sensitively sited at separation distances sufficient to prevent the LCA becoming a <i>Landscape with Turbines</i>, taking advantage of subtle landform differences and tree belts to reduce visibility. Turbines would be best accommodated if visually associated with farmsteads and settlements. Siting should avoid adverse effects on settlements and designed landscapes in and around the edges of this large area and avoid cumulative effects with overhead lines.</p>
											Max. Numbers in Group	1-3	1-3				
											Min Group Separation Distances (km)	2-3	3-5				
<b>16. Rolling Lowland Margin: (i) Eye Water Lowland</b>																	
Med/High	Med/High	Med/High	Med						Approximately 20 wind turbines from 15m to 80m lie within or close to this area.	Lowlands with Occasional Wind Turbines/ with Wind Turbines	Lowlands with Occasional Wind Turbines/ with Wind Turbines						<p><b>Landscape Analysis:</b> A large scale, undulating, open landscape of mixed agriculture, with a northern escarpment rising gently to the upland fringes. Scattered shelterbelts and relatively few trees. Panoramic views to the south from higher areas. Scattered settlements including Duns, linked by a number of roads, including the busy A1 road to England. The East Coast railway also passes through this area.</p> <p><b>Development Capacity:</b> This LCA has limited remaining capacity for smaller sized turbine development and currently risks exceeding capacity on the northern margin due to the established July 2016 baseline. Capacity is limited to the occasional well sited turbine as individual turbines or small groups, not exceeding 3no. The south western area of this LCA has more limited capacity due to the settlement of Duns and a higher degree of intervisibility. Care should also be taken when siting in areas close to the A1/ East Coast railway corridor in the north.</p>
											Max. Numbers in Group	1-3	1-3				
											Min Group Separation Distances (km)	2-3	3-5				
<b>16. Rolling Lowland Margin: (ii) Maxwellheugh</b>																	
Med/High	Med/High	Med/High	Med						One consented 50-80m wind turbine in Kelso lies close to this area.	Lowlands with Occasional Wind Turbines	Lowlands with Occasional Wind Turbines						<p><b>Landscape Analysis:</b> See above for description of type.</p> <p>A much smaller area, rising distinctly above the Tweed to the south of Kelso. Panoramic views N over the Merse to Lammermuir fringes. Settlements including the</p>

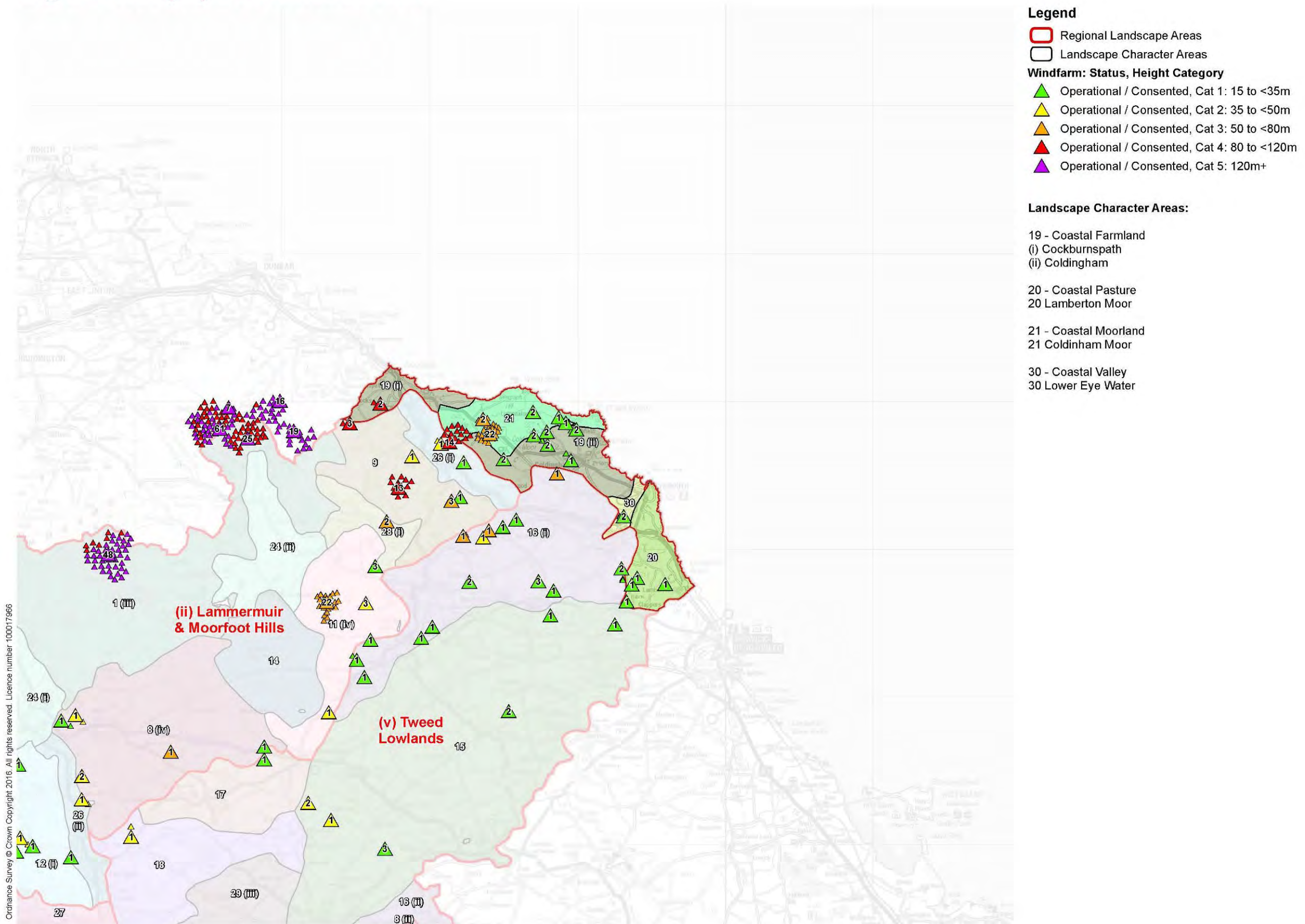
Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT			PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)									
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
											Max. Numbers in Group	1-3	1-3				edge of Kelso, is mainly along the edge of the Tweed floodplain. Elsewhere farms and houses are linked by a grid of lanes. The A688 road to England passes the western end.
											Min Group Separation Distances (km)	2-3	3-5				<b>Development Capacity:</b> Capacity for turbines in this LCA is limited due to the open exposed character and the topography allowing long distance views to and from the settlement of Kelso and the flat farmland to the north. Larger turbines can be sited to the southeastern edges of this area to avoid the prominent north facing escarpment above the Tweed.
<b>17. Lowland Margin Platform: Gordon Platform</b>																	
Med/High	Med/High	Med/High	Med	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	A few wind turbines between 15 and 50m lie in or close to this area.	Lowlands with no/Occasional Wind Turbines	Lowlands with Occasional Wind Turbines	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<b>Landscape Analysis:</b> Large scale undulating landscape of mixed agriculture with large fields divided by stone dykes and widely dispersed mixed woodland blocks and shelterbelts. Similar to surrounding areas of Rolling Farmland and Lowland Margin with Hills, but without distinctive hills. Mainly scattered farms and houses but centred on the village of Gordon and traversed by the A6105. Two overhead electricity lines traverse the southern part.
											Max. Numbers in Group	1-3	1-3	1-3			<b>Development Capacity:</b> Due to the openness and limited vertical scale of this undulating landscape there is capacity only for smaller turbines. These should be sensitively sited at separation distances sufficient to prevent the LCA becoming a Landscape with Turbines, taking advantage of subtle landform and tree belts to reduce visibility. Turbines would be best accommodated in association with farmsteads. Siting should avoid adverse effects on the settlement of Gordon and avoid cumulative effects with overhead lines
											Min Group Separation Distances (km)	2-3	3-5	5-10			
<b>18. Lowland Margin with Hills: Black Law/ Hume Crags</b>																	
Med/High	High	Med/High	Med/High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	One 35-50m wind turbine lies in this area and 2 just to the east	Lowlands with no/Occasional Wind Turbines	Lowlands with Occasional Wind Turbines/ no Wind Turbines	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<b>Landscape Analysis:</b> Large scale undulating landscape of mixed agriculture with large fields divided by stone dykes/ hedges and widely dispersed mixed woodland blocks and shelterbelts. Similar to surrounding areas of Rolling Farmland and Lowland Margin Platform but with distinctive rocky hills. Western edge above the Tweed lies in the Eildon and Leaderfoot NSA and the southwestern edge in Tweed Lowlands SLA. Extensive designed landscape of Mellerstain House occupies middle of the LCA. A number of the hills are characterised by hillforts, with Hume Castle prominent at the eastern end. An overhead electricity line crosses the northern edge of this area.
											Max. Numbers in Group	1-3					<b>Development Capacity:</b> Due to the undulating open landscape character there is limited capacity for individual or small groups of smaller turbines only. There is no capacity along the west edge of the LCA due to the NSA and capacity is also limited by the designed landscape designation. Turbines should not be placed close to the prominent but modest scale rock outcrops and distinctive hills. In particular, turbines should not adversely affect the setting of the key landscape feature of Hume Castle.
											Min Group Separation Distances (km)	2-3					

Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
<b>29. Lowland Valley with Farmland: (i) Lower Kale</b>																	
High	Med/High	High	Med/High	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There are no wind turbines within or close to this area.	Lowlands with no Wind Turbines	Lowlands with Occasional Wind Turbines	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Medium to large scale broad lowland valley landscapes, originating from between hills to converge and drain into the Merse. Undulating valley sides of mixed agriculture with large fields divided by hedges and occasional predominantly broadleaf tree belts and woodland blocks. Flat valley floor floodplain with meandering river. Overlooked by occasional prominent hills and bluffs. Well populated with small towns, villages and farms and traversed by a network of roads. Due to the open, lowland valley character of this landscape type it has no capacity for larger wind turbine or windfarm developments.</p> <p>The Kale LCA is the smallest of the areas; draining west from the Cheviot Uplands through a wide flat-floored basin into the Teviot. There are no landscape designations.</p> <p><b>Development Capacity:</b> The Lower Kale, due to lack of designation and its open undulating nature has limited capacity for smaller size turbines, as smaller groups or single. These should be associated with farmsteads on the valley sides as the flat valley floor is often smaller scale with characteristic terrace formations.</p>
										Max. Numbers in Group	1-3	1					
										Min Group Separation Distances (km)	2-3	3-5					
<b>29. Lowland Valley with Farmland: (ii) Lower Teviot</b>																	
High	High	High	High	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There are no wind turbines within or close to this area.	Lowlands with no Wind Turbines	Lowlands with Occasional Wind Turbines/ no Wind Turbines	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> See above for description of type.</p> <p>The Lower Teviot LCA is the longest of the areas; draining northeast from the Southern Uplands and Hawick, through a wide straight valley to join the Tweed at Kelso. The lower section is overlooked by Rubers Law, the Minto Hills and the rocky bluff of Cleuchhead. It is traversed by the A698 and contains several settlements. Most of this LCA is designated under the Teviot Valleys SLA and there are several designed landscapes including the inventory listed Monteviot.</p> <p><b>Development Capacity:</b> The Lower Teviot has limited capacity for smaller size turbines, as smaller groups or single. Capacity is more limited in the extensive designated areas and near characteristic prominent landforms. Turbines should be associated with farmsteads on the valley sides or business/ industrial areas on the edge of settlements, as the flat valley floor is often smaller scale.</p>
										Max. Numbers in Group	1-3	1					
										Min Group Separation Distances (km)	2-3	3-5					
<b>29. Lowland Valley with Farmland: (iii) Lower Tweed</b>																	
High	High	High	High	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There are no wind turbines within or close to this area.	Lowlands with no Wind Turbines	Lowlands with Occasional Wind Turbines/ no Wind Turbines	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> See above for description of type.</p> <p>The Lower Tweed LCA drains east from the St Boswells, through a broad valley with wide undulating sides to join the Teviot at Kelso. The upper section is overlooked by the Eildon Hills and there are occasional prominent skyline features such as Smailholm Tower. It is traversed by the A699 and contains several settlements. The western end of this SLA lies within the Eildon Hills and Leaderfoot NSA and most of the rest of the area is designated under the Lower Tweed SLA. There are several designed</p>
										Max. Numbers in Group	1-3	1					

























Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT			PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)									
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
											Min Group Separation Distances (km)	2-3	3-5				landscapes including the inventory listed Bemeyerside, Dryburgh, Mertoun, Newton and Floors Castle. <b>Development Capacity:</b> The Lower Tweed has limited capacity for smaller size turbines, as smaller groups or single turbines. There is no capacity in the NSA and designed landscapes. Turbines should be associated with farmsteads on the valley sides or business/ industrial areas on the edge of settlements, as the flat valley floor tends to be a focal corridor for views. Care should be taken to ensure key views towards the Eildon Hills are not affected



**Figure 6.1 (vi) - Coastal Zone**



**Table 6.1(vi). Summary of Landscape Capacity and Cumulative Effects and Guidance for Future Wind Energy Development – Coastal Zone**

Key:  No Capacity  Low Capacity  Medium Capacity  High Capacity																			
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)								CURRENT CONSENTED DEVELOPMENT				PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)				Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )			
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m				Over 120m	15-<35m	35-<50m	50-<80m	80-<120m		Over 120m		
<b>19. Coastal Farmland (i) Cockburnspath</b>																			
Med/High	Med/High	Med/High	Med/High						There are several larger wind turbines within or close to this area: two 110m turbines at Neuk Farm, three 115m at Hoprigshiels, two 76m at Fernylea. The western end is influenced by the extensive Aikengall II windfarm on Monynut Edge.	<i>Coastal Zone with Wind Turbines/ No Wind Turbines</i>	<i>Coastal Zone with Wind Turbines/ No Wind Turbines</i>						<p><b>Landscape Analysis:</b> Rolling mixed farmland landscape of diverse character; lowland character inland but with a coastal influence terminating in dramatic rocky coastline with secluded sandy bays. Predominantly large scale but more intimate secluded areas. Shelterbelts and woodlands concentrated in some areas but also leaving wide open views. Occasional small settlements and many scattered farms and houses.</p> <p>The Cockburnspath area is characterised by the transition from the high Lammermuir skyline in the west to the coast in the northeast. The two areas are separated by the settlement and the transport corridor of the A1 and West Coast mainline. The inventory designed landscape of Dunglass lies along the northwestern boundary and the coastal area is covered by the Berwickshire Coast SLA. The Southern Upland Way ends at Cove and Pease Bay is a holiday facility. The western end of the LCA is crossed by an overhead electricity line and characterised by a number of larger wind turbines within and adjacent to the LCA.</p> <p><b>Development Capacity:</b> This LCA has limited underlying capacity for wind turbine development. Capacity is reduced by the openness of the landscape, designations and sensitive visual receptors. Remaining capacity is limited by potential for cumulative impacts with existing and consented wind turbines in or close to the LCA. Cumulative impact issues are a concern for larger scale turbines, but the smallest sized turbines could be accommodated if associated with built development. Turbines should be set well back from the coastal margin.</p>		
										Max. Numbers in Group	1-3								
										Min Group Separation Distances (km)	2-3								
<b>19. Coastal Farmland (ii) Coldingham</b>																			
Med/High	Med/High	Med/High	Med/High						There are several 15-30m wind turbines within or close to this area and one 50-80m turbine just to the south. At the western end a number of larger turbines of Drone Hill and Penmanshiel windfarms are either within the LCA or adjacent.	<i>Coastal Zone with Wind Turbines/ No Wind Turbines</i>	<i>Coastal Zone with Wind Turbines/ No Wind Turbines</i>						<p><b>Landscape Analysis:</b> see above for description of type.</p> <p>The Coldingham area is less influenced by transport. It is a transition from Coldingham Moor to the coast, with the highest areas over 200m AOD being rough pasture. The area north of the A1107 is covered by the Berwickshire Coast SLA and includes the village of Coldingham and the fishing port of St Abbs. The western end is characterised by the influence of Drone Hill and Penmanshiel windfarms within/ adjacent to the LCA.</p> <p><b>Development Capacity:</b> This LCA has underlying capacity for smaller scale wind turbine development, including mid-size turbines in the higher western areas. Capacity is limited elsewhere by the coastal views, designations and sensitive visual receptors including settlements. Remaining capacity is limited by potential for cumulative impacts with existing and consented windfarms in the west. Proposals for larger scale turbines will require careful assessment for cumulative effects. The smallest sized turbines could be accommodated if associated with built development and similar established smaller turbines located away from the windfarms in the west. Turbines should be set well back from the coastal margin and respect the setting of the main settlements.</p>		
											Max. Numbers in Group	1-3	1						
											Min Group Separation Distances (km)	2-3	3-4						

Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
<b>20. Coastal Pasture <i>Lamberton Moor</i></b>																	
Med/High	Med/High	Med/High	Med/High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There are six 15-30m wind turbines within or close to this area.	<i>Coastal Zone with Occasional Wind Turbines / No Wind Turbines</i>	<i>Coastal Zone with Occasional Wind Turbines / No Wind Turbines</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Predominantly pastoral farmland landscape of diverse character; lowland on the west side but with a strong coastal influence on the east facing side. Characteristic hummocky landforms. Predominantly large scale but more intimate secluded areas. Shelterbelts and woodlands concentrated on the west side but the east side is more open with large fields or rough hilly pasture. A small flatter area of mainly arable land lies between the A1 and Eyemouth. Wide open views over surrounding lower ground or the sea. Occasional small settlements and scattered farms and houses. The A1 and west coast mainline pass across the north and east. The areas beyond this lie in the Berwickshire Coast SLA.</p> <p><b>Development Capacity:</b> This LCA has underlying capacity for smaller scale wind turbine development, particularly in the higher rough pasture areas and possibly the arable area. Capacity is reduced elsewhere by the coastal views, designations and sensitive visual receptors including settlements and transport corridors. Turbines should be set well back from the coastal margin, respect the setting of the main settlements and avoid sensitive skylines. In higher areas existing subtle variations in landform and tree belts should be used to reduce visibility.</p>
											Max. Numbers in Group	1-3	1				
											Min Group Separation Distances (km)	2-3	3-5				
<b>21. Coastal Moorland <i>Coldingham Moor</i></b>																	
Med/High	Med/High	Med/High	Med/High	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	At the western end a number of larger turbines of Drone Hill and Penmanshiel windfarms are either within the LCA or adjacent. There are six further 15-30m wind turbines within or close to this area.	<i>Coastal Zone with Wind Turbines/ Occasional Wind Turbines / No Wind Turbines</i>	<i>Coastal Zone with Wind Turbines/ Occasional Wind Turbines / No Wind Turbines</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> An exposed coastal plateau landscape of diverse character; with a strong coastal influence on the north edge which is girt by tall cliffs. Undulating landform falling away around the northern edges towards coastal cliffs. Large scale pasture and grass ley fields and areas of unimproved moorland pasture. Low tree cover concentrated in plantation woodlands. Open views contained by landform inland but panoramic over the sea and to the northeast. Occasional small settlements and scattered farms and houses. Traversed by the A1107 but few roads especially towards the coast. Most of this area lies in the Berwickshire Coast SLA.</p> <p><b>Development Capacity:</b> This LCA has underlying capacity for smaller scale wind turbine development below 80m tall, particularly in the undulating plateau area. Capacity is reduced elsewhere by the coastal cliffscape and views and sensitive visual receptors including the Berwickshire coastal path. Remaining capacity in the west is limited by the existing windfarms at Drone Hill and Penmanshiel. Turbines should be set well back from the coastal margin, avoid sensitive skylines and significant adverse cumulative effects with the existing windfarms. Existing subtle variations in landform should be used to reduce wider visibility.</p>
												Max. Numbers in Group	1-3				
												Min Group Separation Distances (km)	2-3				



Key: <input type="radio"/> No Capacity <input type="radio"/> Low Capacity <input type="radio"/> Medium Capacity <input type="radio"/> High Capacity																	
UNDERLYING LANDSCAPE CAPACITY (i.e. not taking account of current wind energy development)					CURRENT CONSENTED DEVELOPMENT					PROPOSED LIMITS TO FUTURE DEVELOPMENT (i.e. proposed acceptable level of wind energy development)							
Landscape Sensitivity to Wind Energy Development				Landscape Capacity (Related to turbine size)					Existing/ Consented Developments (July 2016)	Current Wind Energy Landscape Type(s)	Future Wind Energy Landscape Type(s)	Remaining Landscape Capacity (Rel'd to turbine size)					Analysis & Guidelines (Refer to Detailed Guidance for Further Information on Siting and Design )
Landscape Character Sensitivity	Visual Sensitivity	Landscape Sensitivity	Landscape Value	15-<35m	35-<50m	50-<80m	80-<120m	Over 120m				15-<35m	35-<50m	50-<80m	80-<120m	Over 120m	
<b>30. Coastal Valley Lower Eye Water</b>																	
High	Med	Med/High	High	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	There are two 15-30m wind turbines within this area.	<i>Coastal Zone with Occasional Wind Turbines / No Wind Turbines</i>	<i>Coastal Zone with Occasional Wind Turbines/ No Wind Turbines</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p><b>Landscape Analysis:</b> Small scale enclosed valley landscape of mixed farmland with high broadleaved tree cover. Rolling landform surrounding a meandering watercourse. Views in and out well contained. The A1 passes across the south. Well populated: the northern part is dominated by Eyemouth village and the south includes Ayton and Ayton Castle with designed landscape.</p> <p><b>Development Capacity:</b> This LCA has very limited underlying capacity for wind energy due to its intimate scale. Only occasional smallest scale wind turbines, preferably under 20m height can be accommodated. Turbines should be set well back from the coastal margin, respect the setting of the two main settlements and the designed landscape. Subtle variations in landform and tree belts should be used to reduce visibility.</p>
											Max. Numbers in Group	1-2					
											Min Group Separation Distances (km)	2-3					

### 6.3 Landscape Capacity and Cumulative Development

This section summarises capacity and cumulative effects for the main regional landscape areas of Scottish Borders shown in Figure 3.3. Refer to Figure 6.2 for a map of current cumulative wind turbine landscape types and Figure 6.3 for a map illustrating the proposed future limit to wind turbine landscape types, as described in Table 6.1 above and summarised in the sections below.

#### 6.3.1 Landscape Character, Sensitivity and Capacity

The landscape of the Scottish Borders is highly varied and complex consisting of a wide range of landscape types; most but not all of which are found in other parts of Scotland. It is a complex blend of lowland, upland and coastal landscapes predominantly based around the drainage of peripheral upland areas in the west, north and south into the east flowing River Tweed. The main population centres within the Scottish Borders are concentrated throughout the more sheltered lowlands and main river valleys where key infrastructure routes pass and join. There are significant numbers of moderate or small sized settlements within the Tweed and other valleys as well as the central and eastern agricultural lowlands where these rivers join and flow towards the North Sea.

#### 6.3.2 Midland Valley: Summary of Capacity and Cumulative Development

The Midland Valley regional landscape area in the northwest comprises three LCTs; one Upland and two Upland Fringe, falling into three LCAs. The area is peripheral to the main upland areas, but is the one part of the Pentland Hills that drains southeast into the Tweed. All three landscape character areas have only limited capacity for wind energy development. There are some highly sensitive areas where no development is recommended.



**Rolling Farmland near West Linton. There is scope for smaller turbines, up to 50m tall in this LCA. Larger turbines or windfarms would overwhelm the landform and features**

Within the upland landscape character area, *Dissected Plateau Moorlands* there is a limited area contained by topography with low capacity for smaller sized turbines below 50m. The north western edge of this LCA has no capacity due to skyline prominence seen

from Edinburgh and West Lothian and surrounding hilltops. The core areas also have a higher wildness value and recreational use. The Upland Fringe landscape types of *Rolling Farmland* and *Grassland with Hills* have a low to medium capacity for smaller turbine developments below 50m only. This is due to the medium scale, settled landscape character and visual sensitivity of settlements and roads.

In 2016 there was relatively little consented wind energy development in this area; comprising several 15- $<$ 35m turbines mainly located in the upland fringe LCAs, a trend that continues south into South Lanarkshire. The landscape varies between a *Landscape with Occasional Wind Turbines* and *No Turbines*.

There is therefore remaining capacity for wind turbine development below 50m tall in the areas with underlying capacity in the *Rolling Farmland*, *Grassland with Hills* and the topographically contained areas of *Dissected Plateau Moorland*.

#### 6.3.3 Lammermuir and Moorfoot Hills: Summary of Capacity and Cumulative Development

The Lammermuir and Moorfoot Hills regional area forms most of the northern border, overlooking the Lothians and mainly drains south into the Tweed. It comprises thirteen LCTs divided into eighteen LCAs.

The two most extensive upland areas; *Dissected Plateau Moorland* LCAs of the Lammermuir and Moorfoot Hills have a low underlying capacity for smaller turbines below 50m, a medium capacity for turbines of 50- $<$ 120m and a low capacity for turbines of 120m+.

Areas with very limited capacity for any size of turbine are located on prominent hill crests and peripheral escarpments with high visibility from surrounding populated areas; including the Moorfoots escarpment overlooking Midlothian; areas overlooking the main valleys such as the Eddleston, Gala, Leader and Whiteadder Waters and the Tweed Valley. Other areas with more limited capacity include the southern part of the *Lammermuir Hills* LCA, due to the presence of the Southern Upland Way and greater visibility of south facing slopes from populated areas to the south.

The *Plateau Grassland* LCA, although an upland LCT, is less extensive and lower with more improved and enclosed farmland areas. Nevertheless, the larger scale more contained areas on this spine have capacity for larger scale wind energy development; with medium capacity for turbines of 50- $<$ 120m and low capacity for turbines over 120m. There is capacity for smaller sized turbines as individuals or small groups associated with farmsteads on the periphery of this LCA. Hills at the southern end of this area have a high prominence and intervisibility and therefore no capacity for turbines.

The areas of capacity within each LCA decrease in size as the height of turbine increases, due to the greater impacts larger sized turbines will have and the reduction in ability for topographical containment. Capacity for turbines over 120m is greatest in core areas of these LCAs, with simple large scale landscape character, minimal population, and lower intervisibility due to topographical containment. The majority of the *Moorfoot Plateau* LCA has a non – landscape designation (SSSI) that could potentially limit turbine development.

The Upland Fringe LCAs; *Poor Rough Grasslands (Leadburn)*, *Undulating Grassland (East Gala and West Gala)*, *Rolling Farmland (Westruther Platform)*, *Upland Fringe Moorland (Greenlaw Common)* and *Grassland with Hills (Knock Hill)* all have low to medium landscape capacity for turbines below 50m, although the Middle Tweed (Leithen Water) only has capacity for turbines of below 35m.

There is limited capacity for turbines under 80m in the less prominent eastern areas of the *Rolling Farmland LCA (Westruther Platform)*, northern area of the *Grassland with Hills (Knock Hill)* and the eastern area of *Poor Rough Grasslands (Leadburn)*. The western area of the *Platform Farmland (Eye Water Platform)* potentially has low capacity for turbines below 120m. Capacity within these LCAs extends to the larger turbine type for reasons including the scale and pattern of the landscape, lower visual sensitivity and/or value.



**67m turbine at Bassendeanhill in the Westruther Platform LCA. This location was considered unsuitable by SBC, but subsequently granted on appeal**

Areas of no capacity within upland fringe LCAs have greater intervisibility and prominence. Some specific areas have greater recreational use (e.g. Southern Upland Way), form prominent skylines and will be visible from more populated less elevated areas (e.g. Eildon Hills or Rubers Law).

The River Valley LCAs *Pastoral Upland Valley (Gala Water and Eddleston Water)*, *Upland Valley with Farmland (Upper Leader)*, *Pastoral Upland Fringe Valley (Lower Leader and Eye Water)* and *Wooded Upland Fringe Valley (Middle Whiteadder)* are all smaller scale more enclosed settled landscapes, with more complex landforms and landscape patterns and often with a concentration of sensitive receptors. There is no capacity for larger scale wind energy development. However, some have areas of low capacity for small groups or single smaller turbines below 50m or 35m. These LCA also have areas of no capacity for turbine development due to designations and/or areas with greater scenic and recreational value and greater visual sensitivity.

The majority of wind energy development in Scottish Borders at July 2016 is located in this regional landscape area. This includes the following principal developments as well as approximately 50 other turbines between 15 and 80m height in developments of 3 or fewer:

- In the Lammermuirs: the windfarm at Crystal Rig in the eastern Lammermuirs (46 turbines from 99m to 125m), which is in a larger regional cluster extending into the East Lothian side of the Lammermuir Plateau and Fallago Rig (48x110/125m) in the centre of the LCA;
- In the Plateau Grassland just west of the Lammermuirs, Dun Law (26x67.5m and 35x75m), Toddleburn (12x125m) and in the south Long Park (19x100m), with Dun Law adjacent to two much smaller windfarms (Pogbie and Keith Hill) located on the East Lothian side of the Lammermuirs
- In the Moorfoot Hills Carcant (3x107m) and Bowbeat (24x80m);
- In the *Platform Farmland* Quixwood (13x100/115m) and Hoprigshiels (3x115m); and
- In the *Grassland with Hills*, Black Hill (22x78m)

This has created extensive areas of *Landscape with Wind Turbines* across the Lammermuirs and extending both east into the Coastal Zone and west into the *Plateau Grassland*. The largest clusters at Crystal Rig/ Aikengall and Dun Law/ Toddleburn are in effect Wind Turbine Landscapes.



**Crystal Rig (above) and Fallago Rig (below) in the Lammermuir Hills LCA: windfarms seen in opposite directions are largely contained within topographic bowls but seen together contribute to a *Landscape with Wind Turbines* across the Lammermuirs**



The Lammermuirs area is now close to capacity as any further separate development between the three main windfarm clusters at Crystal Rig, Fallago Rig and Dun Law (each with separation gaps of ca. 7-8km) would be likely to create extensive areas of *Wind Turbine Landscape* in which the character of the plateaus would be dominated by wind turbines. A similar scenario exists in the *Plateau Grasslands* between the Gala and Leader Waters, where any significant development between Toddleburn and Long Park (separated by ca. 9km) may create a *Wind Turbine Landscape* unless carefully sited.

There is also the potential for a *Wind Turbine Landscape* to extend east from the Lammermuirs across the *Platform Farmland* and *Coastal Farmland* due to consents for windfarms or small turbine clusters at Aikengall II, Quixwood, Hoprigsheils, Fernylea and Neuk Farm.



**Eye Water Platform and Lammermuirs LCAs: Quixwood windfarm (under construction) in the foreground with Aikengall 2 and Crystal Rig in the background and Hoprigsheils just visible to the far right**

In contrast the Moorfoot Hills and surroundings are a *Landscape with Occasional Wind Turbines* or *No Wind Turbines* and there is the potential for a further significant development to be located in the eastern part of these hills, if carefully sited and designed to take advantage of topographic screening to contain visibility and visual coalescence.

In contrast to most of the Upland areas, much of the underlying capacity in the Upland Fringe LCAs remains unused, although this is much more limited than in the Uplands. The exceptions to this are the *Platform Farmland* and *Grassland with Hills* where current operational and consented developments, within and adjacent to the LCAs, limit the potential for siting further significant wind energy schemes.

There is remaining capacity in some of the river valley LCAs, but this is limited to turbines below 50m or 35m in height.

#### 6.3.4 Central Southern Uplands Summary of Capacity and Cumulative Development.

The Central Southern Uplands is the most extensive of the regional landscape areas, covering much of the western boundary with South Lanarkshire and Dumfries & Galloway and extending eastwards into the heart of the Borders. It comprises eleven LCTs divided into twenty-two LCAs, which include the highest upland areas and the upper and mid sections of the main river systems draining eastwards.

The main Upland LCAs of *Southern Uplands with Scattered Forest* and *Southern Uplands Forest Covered* have underlying capacity for larger scales of turbine including 120m+ due to the large scale of landscape, simple landform/ pattern and extensive area. However, this is limited in the extensive *Broad Law Group* LCA for a variety of reasons, including scenic quality, as underlined by national and local landscape designations, wildness (including part of a Wild Land Area) and recreational use (including the Southern Upland Way and the highest summits in the Borders). In this LCA capacity for larger turbines is limited to the western edge, adjacent to South Lanarkshire and the extensive Clyde Windfarm, where additional turbines would appear as an extension to the existing development.

Landscape capacity for larger turbines is less constrained in the other areas including *Dun Knowe Group*, *Caldcleuch Head Group* and *Craick* LCAs, where there are fewer designations, lower wildness and in the latter two LCAs, greater commercial forest cover. These areas have medium capacity for turbines of 50-<120m and low capacity for turbines of 120m+.

All the Southern Upland LCAs have low or very low underlying capacity for smaller developments with turbines below 50m or 35m in lower valley areas around their fringes. Here there are smaller scale landscape references, and small turbine groupings can be associated with built development and upland edge agriculture.

The two Upland LCAs in the north of the Central Southern Uplands: *Plateau Outliers (Eddleston/ Lyne Interfluve and Broughton Heights)*, are both limited in area and have a smaller scale than the main upland areas to the south. They are also very visible from surrounding transport routes and settlements and especially in the case of Broughton heights, parts are covered by SLA and NSA designations. Underlying capacity is limited to low for turbines below 50m, with potential for a small group of 50-<80m turbines in the centre of the *Eddleston/ Lyne Interfluve*. Sensitive designated areas have no capacity for wind energy.

Upland Fringe LCAs have varied underlying capacity for wind turbines, with a height of less than 80m. *Grassland with Hills (Eildon Hills)* and *Rolling Farmland (Minto Hills)* both have low capacity for smaller sized turbines below 50m and areas of no capacity for medium sized turbines. Areas with no capacity are due to landscape sensitivities including the distinctive landmark Eildon and Minto Hills, and the NSA.

The *Grassland with Rock Outcrops* LCAs surrounding Hawick have varied capacity between and within areas. *Midgard*, *Allan Water* have medium capacity for turbines below 50m and low capacity for turbines below 80m with *Allan Water* potentially able to accommodate a windfarm of up to 5 turbines. *Whitehaugh* and *Chisholme* LCAs are more restricted in capacity due to their greater visual sensitivity and landscape characteristics. *Chisholm* is the smallest of the areas and has low capacity for turbines below 35m only. All of these areas have restricted capacity on slopes overlooking Hawick, the Teviot and other river valleys.

River Valley LCAs in the Central Southern Uplands mainly have low or no capacity for turbines and no capacity for turbines of greater than 50m. This is due to their smaller scale, more varied, settled landscapes; and in most cases landscape designations.

Much of the Central Southern Uplands has no wind energy development located within it. There are currently two operational windfarms: Langhope Rig (10x100m) in the *Dun Knowe Group* LCA and Glenkerie and extension (11x105/120m; 6x100m) in the west of the *Broad Law Group*. The latter is located close to the extensive Clyde windfarm and extension in South Lanarkshire; some turbines of which are located within Scottish Borders. Two further windfarms have recently been consented following appeals: Cloich (18x115m) in the *Eddleston/ Lyne Interfluv* LCA and Windy Edge (9x125/110m) in the *Caldcleugh Head Group* LCA. The former in particular exceeds the guidance in Table 6.1. Other wind energy development is limited to 15-35m turbines located on lower ground in the north and east.



**Langhope Rig windfarm in Dun Knowe LCA: Further to the Barrel Law decision, another windfarm development in this area would require significant separation by distance and topography to avoid creating an area of *Wind Turbine Landscape***

Remaining capacity for larger wind energy development lies within the southern and eastern parts of the Central Southern Uplands, as the *Broad Law Group* has limited underlying capacity which has largely been occupied by Glenkerie and Clyde. There is capacity for wind turbines up to and over 120m in height in most of the *Dun Knowe Group* LCA the southeastern part of *Craik* LCA and parts of the *Caldcleugh Head* LCA. Within these general areas there are localised sensitive receptors which limit capacity for larger turbines: including the Southern Upland Way, the A7 Tourist Route, the setting of Hermitage Castle and prominent hills.

Most of the underlying capacity for turbines under 50m remains. The main constraints being the NSA, the Wild Land Area and the scale and height of many hills and ridges in the centre of these areas being more appropriate to the larger scale of turbine.

**6.3.5 Cheviot Hills: Summary of Capacity and Cumulative Development**

The Cheviot Hills, contiguous with the Southern Uplands in the west and rising to the south of the Tweed Lowlands forms the upland border with England. It comprises eight LCTs divided into twelve LCAs.

The largest upland area, *Wauchope/ Newcastleton* LCA, has much the greatest capacity for larger scale wind energy development due to its large scale, gently rolling landform with extensive areas of uniform forest cover and lack of settlement. The central area has

capacity for all sizes of turbine and well separated windfarms of up to 15 turbines in some locations. Capacity is restricted by some sensitivities including the Carter Bar border crossing and viewpoint in the northeast, the setting of the Scotland-England border and the Liddel Water valley and Hermitage Castle in the southwest.



**Wauchope/ Newcastleton LCA from the northeast. The forested hills have potential capacity to accommodate significant wind energy development if it is suitably designed and located**

The *Cheviot Uplands (Cocklaw Group)* LCA has a very different landscape character, with much steeper distinctive hills and ridges dissected by steep sided valleys. This area lies almost entirely within the Cheviot Foothills SLA, borders the Northumberland National Park and hosts the final section of the Pennine Way. These sensitivities restrict the area to a low underlying capacity for turbines below 50m. The *Cheviot Foothills (Falla Group)* LCA has a similarly low capacity due partly to prominent landforms and landscape designations; but also due to its visual sensitivity, being overlooked by the Carter Bar viewpoint and surrounding uplands.

The Upland Fringe LCAs *Rolling Farmland (Oxnam and Lempitlaw)* and *Grasslands with Hills (Bonchester/ Dunion)* have low underlying capacity for turbines below 50m and *Oxnam* has low capacity for 50-80m turbines as small groups in areas of larger scale simpler landform. However, capacity is constrained in some parts of the Upland Fringe LCAs for reasons which include prominent landforms (e.g. Rubers Law and Bonchester Hill) and skylines and slopes overlooking sensitive visual receptors in surrounding valleys (e.g. Bonchester Bridge and Jedburgh).

Some River Valley LCAs in the Cheviot Hills have low underlying capacity for wind energy schemes; being restricted to turbines below 35m height. This is due to smaller scale and complexity in these landscapes as well as a greater concentration of visual receptors with a number of small to medium size settlements and key transport routes. *Jed Water* and *Rule Water* LCAs have no underlying capacity for turbines over 15m height.

There is at July 2016 minimal wind energy development in the Cheviot Hills area, there being a total of four 15-35m turbines. Remaining capacity is therefore similar to underlying capacity.



**Liddel Water LCA, Hermitage Castle:** This is one of the more sensitive parts of the LCA. The setting of this area was one of the issues highlighted in the Windy Edge windfarm appeal, and the consented windfarm is screened from the main views of the castle

**6.3.6 Tweed Lowlands: Summary of Capacity and Cumulative Development**

The Tweed Lowlands regional landscape area spans the Scottish Borders from the centre to the northeast and forms the lowland boundary of the English Border. It comprises six LCTs divided into eight LCAs. All are of lowland character, focused around the River Tweed and its tributaries.

All of the LCAs have underlying capacity for turbines of less than 50m and the *Gordon Platform* for turbines of 50<-80m. None of the areas has capacity for larger turbines or windfarm developments as they are settled lowland landscapes with lower height landforms, trees and many domestic scale features, as well as a higher density of visual receptors. In most cases the underlying capacity for any size of turbine is low. However, the extensive *Lowland with Drumlins (Lower Merse)* LCA has medium capacity for turbines under 35m height and low capacity for 35-<50m as the area is extensive and the rhythm of drumlin landform and occasional tree belts can in places successfully screen smaller turbines.

There are areas within all the LCAs that are unsuitable for turbine development. This includes prominent landforms and the western edges of *Black Law/Hume Crags* and *Lower Tweed* LCAs which lie in the Eildon Hills and Leaderfoot NSA.

There is fairly extensive small scale turbine development in the Tweed Lowlands, north of Kelso. The northern margin of the *Eye Water Lowlands* has several turbines of varying size between 15 and <80m, with several other 15-<35m turbines scattered across other parts of the LCA. Other turbines are scattered across the *Lower Merse*, *Black Law/Hume Crags* and *Gordon Platform* LCAs, but not in the extensive *Lowland Valley with Farmland* LCAs

Remaining capacity in the *Eye Water Lowlands* is limited by existing wind energy development. In particular, it will be important to avoid creation of a *Wind Turbine Landscape* on the northern escarpment area. In other areas remaining capacity is much the same as underlying capacity.

**6.3.7 Coastal Zone: Summary of Capacity and Cumulative Development**

The Coastal Zone is the smallest regional landscape area, and occupies the relatively limited coastal margin in the northeast of Scottish Borders. It is a varied and often spectacular landscape comprising four LCTs divided into five LCAs.

All LCAs have underlying capacity for turbines under 50m height, except the small and intimately scaled *Coastal Valley* of the *Lower Eye Water* LCA which is limited to turbines below 20m. Higher parts of the *Coastal Moorland (Coldingham Moor)* and *Coastal Farmland (Coldingham)* LCA have underlying capacity for small groups of 50-<80m turbines. There is no capacity for larger scales of wind energy development. In all cases the coastal edge of clifftops and beaches has no capacity for any size of turbine due to scenic value and sensitive receptors on the Berwickshire Coastal Path.

There is in July 2016 extensive operational and consented wind energy development of all scales within this area; the main focus of development being the *Coastal Moorland* and *Farmland* areas in which two windfarms are located: Drone Hill (22x76m) and Penmanshiel (14x100m). In addition, the *Cockburnspath* LCA has two 110m turbines at Neuk Farm and is bordered by the three 115m Hoprigshiels and two 76m Fernylea turbines and is influenced by the 19x145m Aikengall II turbines on the Monymut Edge 2km to the southwest.



**Hoprigshiels and Fernylea (above) to the west, and Penmanshiel/ Drone Hill (below) to the east, seen from the same location above Ecclaw. Aikengall 1 and 2 is also visible behind Hoprigshiels in clearer conditions**



Existing development has curtailed underlying capacity in most of the LCAs, particularly *Cockburnspath* and *Coldingham Moor*. However, there is still capacity for smaller turbines, either below 35m or 50m in parts of all areas.

## 6.4 Overall Assessment of Capacity and Cumulative Development

### 6.4.1 Scottish Borders Summary: Landscape Character, Sensitivity and Capacity

The regional summaries above describe a landscape that has highly varied capacity to accommodate wind energy development; from extensive windfarms to single small turbines, as well as areas which have no capacity to accommodate wind turbines without affecting key characteristics, receptors and/or designations to an undue extent.

The LCTs with the greatest underlying capacity for development are the upland areas in the northern, western and southern edges of Scottish Borders; principally the *Dissected Plateau Moorland*, *Plateau Grassland*, *Southern Uplands with Scattered Forest* and *Southern Uplands Forest Covered*. These landscapes are of a larger scale and have a simple form and landcover, with fewer reference features of human scale such as houses and groups of trees. There are fewer visual receptors and some areas have a lower visibility due to intervening topography. The uplands also comprise the most extensive regional landscape type in Scottish Borders. The uplands are generally suited to larger scale turbines and windfarm developments.

Differences in capacity within upland areas are dependent on differences in topography, visual sensitivity and landscape value. Some areas have a more defined hill topography, unsuited to the largest scale of blanket windfarm development, such as seen at Crystal Rig/ Aikengall. Other areas have a high landscape value due to designations, scenic qualities, higher wildness values or their popularity for recreation. Upland areas with more limited capacity include the *Plateau Outliers* and *Dissected Plateau Moorland (Western Pentlands)* LCA in the northwest which are of limited extent; *Southern Uplands with Scattered Forest (Broadlaw Group)* LCA in the west and centre and the *Cheviot Uplands and Cheviot Foothills* LCTs in the southeast which have distinctive character and high landscape value.

As described in 6.3 above, the upland landscape types have been extensively developed or are consented for development, and their capacity for further development is thus limited.

The Upland Fringe LCTs have a more limited capacity for development than Upland LCTs for various reasons. This includes a transitional character between upland, lowland and river valley landscapes; more settled nature; visibility to population centres and transport routes and generally more limited extent. Some larger scale upland fringe areas may accommodate turbines below 80m height in small groups. However, some types, such as *Grassland with Hills* and *Upland Fringe Moorland*, include landmark hills unsuited for wind energy development, such as the Eildon Hills, Rubers Law and Dirlington Laws.

The extensive River Valley LCTs are generally only suited to smaller scale wind energy development of turbines below 50m height at most, and some have no underlying capacity.

This is due to their often smaller scale and more complex landscape patterns; extensive settlement and transport routes leading to potential visual sensitivities. Some river valleys are also subject to extensive landscape designations including two National Scenic Areas along the Tweed and many inventory listed designed landscapes.

The lowland landscapes around the Tweed in the north east are generally of a large scale. However, they have a lower capacity than the uplands due to their limited vertical scale, more varied and patterned landscape and presence of human scale references such as buildings, hedges and tree belts. They are also more visually sensitive, having settlements and main transport routes. They are better suited to smaller scale developments and smaller turbines below 50m, although limited areas may accommodate turbines of 50- <80m singly or in small groups.

The coastal landscapes are in some ways a microcosm of the rest of the Borders landscapes of uplands, lowlands and valleys, but much less extensive and with a strong coastal influence. This limits their capacity to small groups of turbines below 50m height in most areas, but with some areas able to accommodate small groups of turbines of 50- <80m.

The following sections summarise the underlying landscape capacity for wind energy development throughout Scottish Borders and cumulative issues associated with current (**July 2016**) levels of development. Four categories of area are discussed, with analysis of landscape resource and current capacity:

- 1) **Areas with Highest Underlying Landscape Capacity:** landscapes whose characteristics would most easily accommodate extensive, large scale wind energy development without unduly adverse effects.
- 2) **Areas with Limited Underlying Landscape Capacity:** landscapes whose characteristics would accommodate a more modest and less extensive scale of wind energy development without incurring unduly adverse effects.
- 3) **Areas with Little or No Underlying Landscape Capacity:** landscapes which, due to their sensitive characteristics and value, can accommodate only the smallest scale of wind energy development, or none at all.
- 4) **Areas of Significant Cumulative Development:** areas overlapping all of the above categories in which there is a significant level of operational or consented development relative to capacity, which limits future capacity for development

Reference should be made to the summary diagram in Figure 6.4 in which the four types of area are shown. Detailed analysis of LCTs and LCAs within these areas and guidance for proposed developments is given in Table 6.1 above.

#### 6.4.1 Areas with Highest Underlying Capacity.

Areas in Scottish Borders with the highest underlying capacity for wind energy development are potentially able to accommodate windfarms with larger turbine sizes. This may vary from relatively small windfarms with 5-10 turbines below 80m, to extensive windfarms with scores of turbines over 120m in height. Proposals in these strategic areas

will need to respond to the landscape's pattern and scale, take account of screening and visibility and areas of higher complexity and landscape pattern. The main strategic areas are:

- Areas of *Dissected Plateau Moorland* within the Lammermuir Hills where there is a large scale undulating landform, a simple landscape pattern and topographic screening and lower visibility within and beyond the LCA. This area is designated as an SLA and is limited to the south by the Southern Upland Way long distance route.
- The core of the *Plateau Grassland* of Lauder Common, lying between the Gala and Leader Waters, using topography to help screening from the two valleys and the Lothians to the north and avoiding effects on the publicly accessed area around the B6362 between Lauder and Stow.
- An area of *Dissected Plateau Moorland* within the central Moorfoot Hills with lower intervisibility from receptors, sited away from settlements and areas of local landscape designations. Screened and topographically contained by the upland landscape, this area could be capable of accommodating a mid to large size windfarm with turbines under 120m or a smaller number of turbines over 120m. (NB. Although not a landscape designation a large area of the Moorfoot Hills has been designated as SSSI and SAC that could restrict turbine development).
- The western edge of the *Southern Uplands with Scattered Forest (Broadlaw Group)* adjacent to Clyde Windfarm in South Lanarkshire. The windfarm area could extend into this part of the Scottish Borders which has extensive forest cover, accommodating turbines of more than 120m height. Limitations include the environs of the prominent Culter Fell to the north and more sensitive parts of the Central Southern Uplands to the east where there is a Wild Land Area and several of the highest and most popular hill summits. The A701 and Upper Tweed Valley should act as a natural boundary to eastward turbine development.
- Within the southeastern area of the Central Southern Uplands there are strategic areas. The area west of the A7 extends from the Dumfries and Galloway border north and lies mainly within two LCAs: *Southern Uplands Forest Covered: (Craik)* and *Southern Uplands with Scattered Forest (Dun Knowe)*. The area east of the A7 lies mainly within the *Southern Uplands with Scattered Forest (Caldcleuch Head Group)*. These strategic areas have lower intervisibility, limited human settlement, no landscape designations and are simpler landscapes with relatively little diversity and would be capable of accommodating turbines of over 120m height in smaller or mid-sized windfarms. (NB. Although not a landscape designation these areas are partly within the Eskdalemuir EKA Seismological Array exclusion and statutory safeguard zones, that are likely to have an impact on potential for wind energy developments).
- Within the Cheviot Hills there is a strategic area in the *Southern Uplands Forest Covered (Wauchope/Newcastleton)* LCA. This area has large scale gently rolling landform, uniform forest cover and a low population. Areas benefit from topographic screening and would be capable of accommodating turbines of over 120m height in smaller or mid-sized windfarms. Limitations include views from more sensitive

locations on and around the Scotland-England Border and some more prominent landforms.

#### 6.4.2 Areas with Limited Underlying Capacity

Areas with limited underlying capacity could accommodate small groupings of carefully located turbines under 80m or, in some cases, under 50m height. In some locations this may amount to a small scale windfarm, but in others only single or lower height turbines could be accommodated. The larger developments would best be accommodated in the largest scale areas of Upland Fringe or Lowland areas with simple landform and lower population. The smaller developments would in most cases be better accommodated in enclosed farmland, industrial/ business areas or other built development and in many cases be limited to turbines under 50m height. Areas with limited underlying capacity include:

- Areas of the Midland Valley Upland and Upland Fringe landscape character types. Development should respond positively to the existing scale, settlement patterns and complexities found within the landscape.
- The lower elevations of the *Middle Tweed Valley* landscape but only within the less sensitive areas with lower intervisibility, avoiding prominent spurs.
- The less prominent, but not peripheral, southern slopes of the Moorfoot Hills and peripheral areas of Lauder Common and the Lammermuir Hills. Siting should avoid the most exposed peripheral areas and escarpments due their prominence and the visual or landscape sensitivity of their surroundings.
- The transitional area between the Upland Fringe of the Lammermuir Hills and the Tweed Lowlands. This area has limited capacity in undesignated undulating farmland landscapes with sparsely distributed smaller settlements, individual farmsteads and a lower intervisibility.
- The undulating landscape of the Merse area also has capacity for smaller turbines in locations with lower intervisibility.
- Areas within the Cheviot Hills, Upland Fringe and River Valleys: within the more contained areas screened from the Northumberland National Park and key viewpoints and within less complex open areas with fewer settlements and lower intervisibility.
- The outlying areas, but not the more prominent slopes of the Southern Uplands; Uplands, Upland Fringe and River Valley landscapes. There is some capacity here due to the lower intervisibility and larger scale less complex landscapes/ landforms and simpler patterns in the landscape.
- River Valley landscapes of the Gala Water, Leader Water and Eye Water. The limited capacity within these landscapes is due to the smaller scale landscape character, settlement and transport patterns and the more complex landscape patterns and processes within them.



When assessing the acceptability of large and very large turbine proposals in neighbouring landscape character areas, proximity to these sensitive areas should be taken into account.



**Gala Water LCA. There is limited scope for appropriately sited turbines up to 50m tall in this upland valley**

**6.4.3 Areas with Very Limited or No Underlying Capacity**

Significant areas of Scottish Borders have a high sensitivity and/or value and thus very limited or no capacity for wind turbine developments. These areas can only exceptionally accommodate well separated single turbines below 50m or 35m. Some areas are not suitable for wind energy development. These areas are:

- The upland areas of the Pentland Hills in the Midland Valley area. The skyline and escarpment of these hills is highly prominent to a large population to the north and the area has a high recreational value.
- A large area of the *Upper Tweed Valley* and prominent escarpment slopes of the Central Southern Uplands, *Broughton Heights* and *Moorfoot Hills* due to national and local landscape designations, settlement pattern and a higher degree of visibility from sensitive receptors.
- The core of the Central Southern Uplands in the *Broadlaw Group LCA*, which has the highest summits, most dramatic scenery and highest wildness value within Scottish Borders and is consequently a scenic and recreational asset.
- River valleys within the Southern Uplands due to settlement patterns, smaller scale landscapes, local and national landscape designations. Intervisibility from the valleys to the upland areas would also be higher.
- Areas within the Cheviot Hills. This is due to various landscape character, visual and landscape value reasons. This includes a steep and complex landform, proximity to the Northumberland National Park and the summit of the Cheviot, the Pennine Way, local landscape designations and important recreational usage including tourism and the setting of the panoramic Carter Bar viewpoint on the England – Scotland border.

- A large central area of the *Middle and Lower Tweed Valley*, including upland fringe and Tweed Lowland landscapes. This is due to local and national landscape designations, a substantial population and settlement pattern within the lowlands and river valleys as well as prominence, smaller scale landscapes with more complex patterns and processes and a higher degree of intervisibility within this area of the Scottish Borders.
- The southern fringes of the Lammermuir Hills consisting of Upland, River Valley and Upland Fringe landscapes. This is due to local landscape designations, long distance recreational routes and a higher degree of intervisibility.
- A number of prominent landmark hills in Upland and Upland Fringe areas including the Eildon Hills, the Darrington Laws, Rubers Law, the Minto Hills and Maiden Paps. These characteristic and widely visible landforms fall mostly within designated landscapes and cannot accommodate wind turbines on their slopes or immediate surroundings without undue effects.
- The coastal edge of the Coastal Zone also has no capacity for turbine development due to scenic value, visual sensitivity and local landscape designations.

It is recommended that these landscape areas remain sparsely developed or undeveloped to protect their character and to provide gaps between clusters of development.



**Rubers Law is one of the most prominent landforms in the Borders and is not suitable for wind turbine development**

**6.4.3 Areas of Significant Cumulative Development**

SPP recommends that planning authorities are clear about likely cumulative impacts arising from the considerations set out at paragraph 169, which may limit the capacity for further development. One of the development management considerations at paragraph 169 is cumulative landscape and visual impacts.

Figure 6.4 identifies areas where, in **July 2016**, there is significant cumulative operational and consented wind turbine development. The cumulative areas overlap with landscapes

of varied underlying capacity for development, and simply reflect that there is significant cumulative development relative to this underlying capacity. Four *Areas of Significant Cumulative Development* are identified. These areas do not in themselves specify capacity or a limit to development; however, a broader area of potential constraint is indicated by wider *Areas Where Cumulative Impacts Limit Development* encompassing the cumulative areas and their surroundings.

Table 6.2 below describes the areas in more detail and key criteria for locating further development and assessing cumulative effects. Capacity and guidance is also detailed for the coincident LCTs and LCAs in Table 6.1. This should be taken into consideration when assessing residual capacity for further wind energy development within the areas shown, or in adjacent landscapes.

The boundaries shown in Figure 6.4 are indicative. Development proposals require to address detailed criteria in Table 6.2 to ensure that landscape capacity within, or adjacent to, these areas is not exceeded as a result of adding further to existing and consented cumulative development.

The *Areas of Significant Cumulative Development* detailed in Figure 6.4 and Table 6.2 are based on the most up to date information on operational and consented schemes available at a time prior to its completion (i.e. July 2016). However, the database has changed in the intervening period between July and this November publication, with the addition of newly consented schemes including small scale and single turbine proposals as well as larger wind farms. The baseline will continue to change in future. Cumulative effects are therefore likely to extend, or occur outwith the areas shown in the report, as new developments come forward. It is therefore possible that in future other areas not currently detailed in Figure 6.4 and Table 6.2 could meet the definition of *Areas of Significant Cumulative Development*.

The capacity study therefore represents a ‘snapshot’ in time at July 2016. As is the case with all cumulative assessments, proposed schemes will require to be assessed on the basis of available up-to-date information on consented and operational schemes at the time of application.

Elsewhere there are much more limited extents of development and the guidance in Table 6.2 is intended to steer future development to an acceptable level.

**Table 6.2: Description and Guidance for Areas of Significant Cumulative Development: (see Figure 6.4 for locations)**

1. Coastal Zone, Lammermuir Hills and Lauder Common	
<p><b>Description</b></p> <p>This area lies in the Lammermuir &amp; Moorfoot Hills regional landscape area, on the northern boundary of Scottish Borders extending into East Lothian and Midlothian. It includes the following LCAs and operational/ consented wind energy developments:</p> <ul style="list-style-type: none"> <li>• The Coastal Zone area of <i>Coastal Farmland (Cockburnspath)</i> southwest of Cockburnspath and the northern edge of the <i>Platform Farmland (Eye Water Platform)</i>; within or close to which lies the small schemes of Neuk Farm, Hoprigshiels, and Fernylea;</li> <li>• The Upland landscape of <i>Dissected Plateau Moorlands (Lammermuir Hills)</i> extending across the border into East Lothian and including the extensive developments at Aikengall/ Crystal Rig and Fallago Rig.</li> <li>• The northern edges of the River Valley Landscapes of <i>Wooded Upland Fringe Valley (Middle Whiteadder)</i> and <i>Upland Valley with Farmland (Upper Whiteadder)</i>.</li> <li>• The northern end of the Upland Landscape of <i>Plateau Grassland (Lauder Common)</i> extending across the boundary into East Lothian and including the extensive Dun Law/ Toddleburn cluster.</li> </ul>	<p><b>Development Situation and Key Objectives</b></p> <p>In July 2016 there are three main wind energy clusters and a number of smaller developments of 2-3 turbines. This has created a <i>Landscape with Windfarms</i> over the area as a whole, with Windfarm Landscape around each of the largest three clusters. The key objectives governing the area are:</p> <ul style="list-style-type: none"> <li>• Retaining sufficient spacing between individual windfarms and turbines so as not to exceed a <i>Landscape with Wind Turbines</i> typology outside the main <i>Wind Turbine Landscape</i> clusters of Crystal Rig/ Aikengall, Fallago Rig and Dun Law/Toddleburn;</li> <li>• To prevent visual coalescence with cumulative areas 2 and 3;</li> <li>• To prevent a proliferation of turbines visible from the A1 and East Coast Mainline Railway corridor;</li> <li>• To prevent the overdevelopment of the Upland landscape, <i>Plateau Grassland (Lauder Common)</i> LCA and to avoid this landscape from developing into a <i>Wind Turbine Landscape</i>;</li> <li>• To prevent the close proximity of larger turbines to settlements and individual dwellings in the surrounding Upland Fringe, Coastal Zone and River Valley areas;</li> <li>• To support an organised pattern of development within the Upland areas, promoting development in concentrated clusters whilst maintaining sufficient spacing between neighbouring clusters of developments;</li> <li>• To minimise visibility to sensitive receptors in surrounding areas; including to the north the more visually prominent areas of the northern escarpment of the Lammermuirs visible from population centres of Edinburgh and the Lothians and to the south from the Southern Upland Way.</li> </ul>
2. Coldingham Moor	
<p><b>Description</b></p>	<p><b>Development Situation and Key Objectives</b></p>

<p>This area lies largely within the Coastal Zone regional area. It includes the following LCAs and operational/ consented wind energy developments:</p> <ul style="list-style-type: none"> <li>• A small section of the A1 and East Coast Mainline Railway corridor, River Valley landscape <i>Pastoral Upland Fringe Valley (Eye Water)</i>;</li> <li>• The Coastal Zone area of <i>Coastal Moorland (Coldingham Moor)</i> and <i>Coastal Farmland (Coldingham)</i> between the settlements of Cockburnspath and Coldingham;</li> </ul> <p>This area accommodates two adjacent windfarms; Drone Hill and Penmanshiel, as well as three other turbines adjacent to this cluster.</p>	<p>In July 2016 there is one wind energy cluster comprising two windfarms and closely associated smaller developments of 1 and 2 turbines. This has created a <i>Landscape with Windfarms</i> within a wider area of <i>Landscape with Wind Turbines</i>. The key objectives governing the area are:</p> <ul style="list-style-type: none"> <li>• Retaining sufficient spacing between individual windfarms and turbines to avoid significantly expanding the areas of <i>Wind Turbine Landscape</i> and maintain the <i>Landscape with Occasional Wind Turbines</i> typology over the wider area</li> <li>• To minimise visibility of turbines from the scenic coastline edge of the Berwickshire Coast SLA</li> <li>• To prevent visual coalescence with cumulative areas 1 and 3</li> <li>• To prevent a proliferation of turbines visible from the A1 and East Coast Mainline Railway corridor</li> <li>• To prevent the unacceptable proximity of larger turbines to settlements and individual dwellings including Coldingham and Cockburnspath</li> <li>• To minimise visibility from sensitive receptors including the Southern Upland Way and Berwickshire Coastal Path</li> </ul>
<p><b>3. Eye Water Platform</b></p>	
<p><b>Description</b></p> <p>This area lies largely within the Upland Fringe of the Lammermuir &amp; Moorfoot Hills regional landscape area. It includes the following LCAs and operational/ consented wind energy developments:</p> <ul style="list-style-type: none"> <li>• The Upland Fringe landscapes of the <i>Platform Farmland (Eye Water Platform)</i></li> <li>• The southwestern edge of the A1 and East Coast Mainline Railway corridor, River Valley landscape <i>Pastoral Upland Fringe Valley (Eye Water)</i></li> <li>• The northern edge of the River Valley Landscape of the <i>Wooded Upland Fringe Valley (Middle Whiteadder)</i></li> <li>• The northwestern edge of the Lowland Landscape of <i>Rolling Lowland Margin (Eye Water Lowlands)</i>.</li> </ul>	<p>In July 2016 there is one windfarm and several smaller wind energy schemes within a <i>Landscape with Windfarms</i>. The key objectives governing the area are:</p> <ul style="list-style-type: none"> <li>• Retaining sufficient spacing between individual windfarms and turbines to maintain the <i>Landscape with Wind Turbines</i> and <i>Landscape with Occasional Wind Turbine</i> typology and avoid creating areas of <i>Wind Turbine Landscape</i>;</li> <li>• To prevent visual coalescence with cumulative areas 1 and 2</li> <li>• To prevent a proliferation of turbines visible from the A1 and East Coast Mainline Railway corridor</li> <li>• To prevent the unacceptable proximity of larger turbines to settlements and individual dwellings</li> <li>• Retaining sufficient spacing between windfarm developments and the Southern Upland Way.</li> </ul>
<p><b>4. Western Central Southern Uplands</b></p>	
<p><b>Description</b></p> <p>This area lies within the Central Southern Uplands, on the western boundary of Scottish Borders, extending well into South Lanarkshire.</p> <p>It includes the following LCAs and operational/ consented wind energy developments:</p> <ul style="list-style-type: none"> <li>• The <i>Southern Uplands with Scattered Forest (Broadlaw Group)</i> LCA west of the Upland Valley with Pastoral Floor (Upper Tweed Valley) and the A701 and South of Culter Fell, extending well into the Southern Uplands of South Lanarkshire</li> <li>• The area to the west is dominated by the more than 200 turbines of Clyde windfarm and extension, which is primarily in South Lanarkshire; with Glenkerie and extension 5km to the northeast within Scottish Borders</li> </ul>	<p><b>Development Situation and Key Objectives</b></p> <p>At July 2016 the western part of this area is a <i>Wind Turbine Landscape</i>, with a <i>Landscape with Wind Turbines</i> extending northeastwards. It is surrounded by an extensive area of <i>Landscape with No Wind Turbines</i> extending across the <i>Broadlaw Group</i> and <i>Upper and Middle Tweed Valley</i> LCAs. The key objectives governing the area are:</p> <ul style="list-style-type: none"> <li>• Promote the contained development of a wind farm cluster, using the strong landscape feature of the Tweed Valley and A701 as a barrier to limit development spreading east across the Southern Uplands</li> <li>• To maintain the Broadlaw Group LCA to the east of the Tweed Valley as a <i>Landscape with No Wind Turbines</i>, creating a gap between wind energy clusters</li> <li>• To prevent visual coalescence of any other wind energy schemes with Clyde windfarm</li> <li>• To prevent unacceptable proximity of larger turbines to visually sensitive locations including the Southern Upland Way, the Devil's Beeftub viewpoint and popular hill summits including Culter Fell, Hart Fell and Broad Law</li> <li>• To prevent adverse effects on the Talla-Hart Fell Wild Land Area</li> </ul>

## 6.5 Capacity for Further Development

This assessment has demonstrated that the landscape of Scottish Borders has the underlying capacity to accommodate a significant amount of wind energy development; of appropriate types and extents according to the varied characteristics of the landscapes and the visual sensitivities across the region.

At current levels of development there is remaining capacity for further appropriate wind energy development in much of the Scottish Borders. However, cumulative development limits this in some areas.

The following section highlights the areas with remaining capacity. However, Tables 6.1 and 6.2 should be consulted for detailed guidance.

### 6.5.1 Areas with Most Remaining Capacity

The greatest scope for further development lies within Upland LCTs in the north, west and south that have been identified firstly as having underlying capacity for larger turbines and windfarms and secondly cover significant areas:

- The core of the *Moorfoot Hills* has the landscape capacity to accommodate a windfarm with turbines of 80-120m or a smaller number of turbines at 120m+.
- Areas of *Craik, Dun Knowe, Caldcleuch Head and Wauchope/ Newcastleton* could accommodate windfarms with larger turbines including 120m+

### 6.5.2 Areas with Limited Remaining Capacity

Areas with limited remaining capacity include areas with underlying capacity for larger turbines that are limited by cumulative development and windfarms, and areas with underlying capacity for smaller windfarms and/or smaller types of turbine development that remain undeveloped:

- The *Lammermuir Hills* could accommodate additional larger turbines but only as extensions to existing windfarms
- *Lauder Common* could accommodate additional larger turbines as a carefully sited additional development or possibly by extending an existing windfarm
- The *Broadlaw Group* west of the A701 could accommodate further carefully designed and sited extension to Clyde windfarm
- Some of the Upland Fringe LCTs and smaller Upland LCTs have areas of the scale and simplicity of landscape pattern to accommodate turbines below 80m and most 80m, although some in the northeast are close to cumulative capacity.
- Some of the larger scale River Valley LCTs can accommodate turbines of below 50m and none of these has reached capacity

- Most of the Lowland LCTs are of a large enough scale and simple pattern to accommodate turbines below 50m, or in some cases 80m, although some areas in the northeast are close to cumulative capacity.
- Limited areas of the Coastal LCTs have remaining capacity for turbines below 50m or 35m.

There may be limited scope for extension of larger operational windfarms in Upland LCTs as an alternative to locating new smaller windfarms in lowland or upland fringe areas. However, the siting of additional turbines must avoid physical or visual coalescence with windfarms and concentrations of turbines in neighbouring landscapes, or the crossing of boundaries blurring the distinction between landscape types.

### 6.5.3 Other Landscape Areas and Urban Areas

Within many of the remaining LCAs of Scottish Borders there is very limited remaining capacity for small wind energy development below 35m or occasionally 50m. Many parts of these areas have effectively no capacity, for reasons including landscape character, visual sensitivity and/or landscape value. These areas include:

- The two nationally designated landscapes
- Areas with a high scenic quality and/or wildness value that are also popular with visitors including much of the *Broad Law* LCA
- Distinctive landforms and their settings such as the Eildon Hills, Rubers Law or the Dirlington Laws
- The highest hilltop viewpoints such as Broad Law, Culter Fell and Hart Fell
- Inventory listed designed landscapes
- Narrow, steep, small scale river valleys
- Locations critical to the setting of settlements

Whilst it is recognised that some parts of urban areas may be able to accommodate wind turbines, and indeed do, this study does not assess the capacity of urban areas. Consequently urban areas have not been included in the maps in 6.1 - 6.4 and the guidance in Table 6.1. Factors specific to townscape and urban planning are likely to guide location; however the effects of larger turbines on adjacent rural LCTs and cumulative areas should be taken into account.

## 6.6 Existing Developments: Extensions and Repowering

SPP para 170 states that 'Areas identified for wind farms should be suitable for use in perpetuity' and refers in paras 161 and 174 to repowering of existing sites and extensions to existing windfarms. Implicit in this is the need to ensure at the outset that sites are

suitable for development and that windfarms are sited and designed to minimise impacts and to protect amenity. Para 161 states:

*'Development plans should also set out the criteria that will be considered in deciding all applications for wind farms of different scales – including extensions and re-powering – taking account of the considerations set out at paragraph 169'.*

The study has taken into consideration the likelihood that existing schemes in Scottish Borders may in future be extended, or in the longer term repowered (see 6.2.4 and 5 above and remarks in relation to specific schemes made in Table 6.1).

The guidance addresses the landscape, visual and cumulative criteria listed in para 169 of SPP. It should be applied as equally to extensions to, and repowering of, existing windfarms as it is to newly proposed wind energy developments. However, some specific considerations relating to the nature of extensions or repowering will apply:

- The design of extensions and repowering schemes should take into account the scale and context of existing wind energy development in the surrounding area that will be added to, replaced and/or operational during the lifetime of the proposed extension/repowering scheme.
- In the case of extensions, the location and design of extensions relative to the original scheme is critical. This should take account of turbine size and layout, remaining capacity for extension without unduly extending effects, and the remaining lifespan of the original scheme.
- Particularly in the case of repowering, opportunities for mitigating adverse effects of earlier, less well designed, schemes should be grasped. This may include more harmonious turbine arrangements or reducing the developed area as more energy can now be delivered by fewer, larger turbines.

The nature of future proposals will be affected by the wider changes to onshore wind energy driven by advances to technology and changing economic circumstances. Currently the main anticipated change is the greater size of, and spacing between, modern commercial turbines. In essence, applications for repowering should be considered *de novo*.

## 6.7 Guidance for Single/Small Turbine Developments

This cumulative assessment and capacity study has detailed the current distribution of all sizes of wind turbines of 15m or above when determining capacity for further development. This is because the smallest turbines (less than 15m), being of a similar height to built structures and trees found commonly throughout the landscape, do not have the same eye-catching prominence and extensive visibility of larger turbines. They do not therefore have the same issues of wide scale cumulative effects across extensive landscape areas.

The issues relating to design and siting of small turbines concern mainly their localised effects on the area in which they are sited rather than wider cumulative effects on

landscape character. Small wind turbines should be judged on their own merits, assessed against the criteria that apply to most other domestic or farm scale built structures. Landscape and visual considerations may include the following:

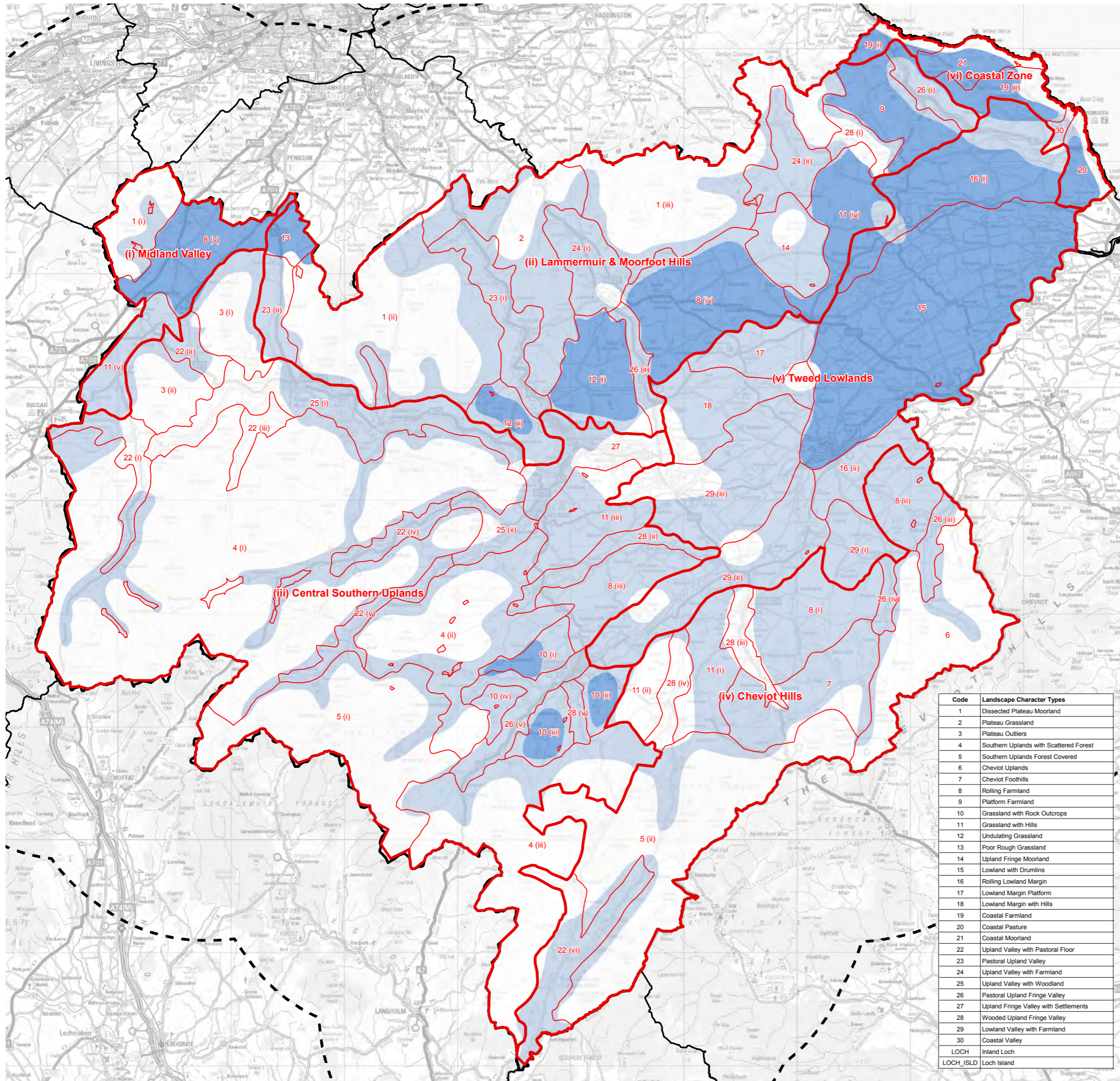
- Effects on designations including landscape quality designations, Scheduled Ancient Monuments, listed buildings, conservation areas;
- Location in relation to scenic viewpoints;
- Relationship to skylines and seascapes;
- Relationship to other structures and buildings;
- Location in relation to approaches to and setting of settlements;
- Proximity to residential properties;
- Localised cumulative effects including potential for visual confusion or cluttering areas with significant numbers of small turbines and/or close proximity to other similar larger structures including taller wind turbines and electricity pylons.

Larger wind turbines are more often than not seen against the sky. The approach to colouring has been to adopt a neutral light grey colour relating to the sky colour most likely to be encountered as a backdrop. Small wind turbines are often fully or partially backclothed against landforms and/or trees, giving a closer relationship to the ground than the larger structures. It may therefore be appropriate to consider colouring small wind turbines a darker grey, green or brown to reduce their visibility when seen against backdrops, or close to buildings.

Further guidance on the siting of smaller wind turbines is given by SNH<sup>15</sup>.

<sup>15</sup> SNH (March 2012) *Siting and Design of Small Scale Wind Turbines of between 15 and 50 metres in height*





### Legend

- Regional Landscape Areas
- SBC Local Authority Boundary
- Local Authority Boundary 15km Buffer
- Other Local Authority Boundaries
- Landscape Character Areas

### Landscape Capacity (15 to <35m)

- High
- Medium
- Low
- None

### Note:

The shaded areas show an indicative level of capacity and its extent within and across different landscape character areas. These areas should not be interpreted as a hard boundary and reference should be made to the detailed capacity assessment and locational guidance given in Table 6.1.

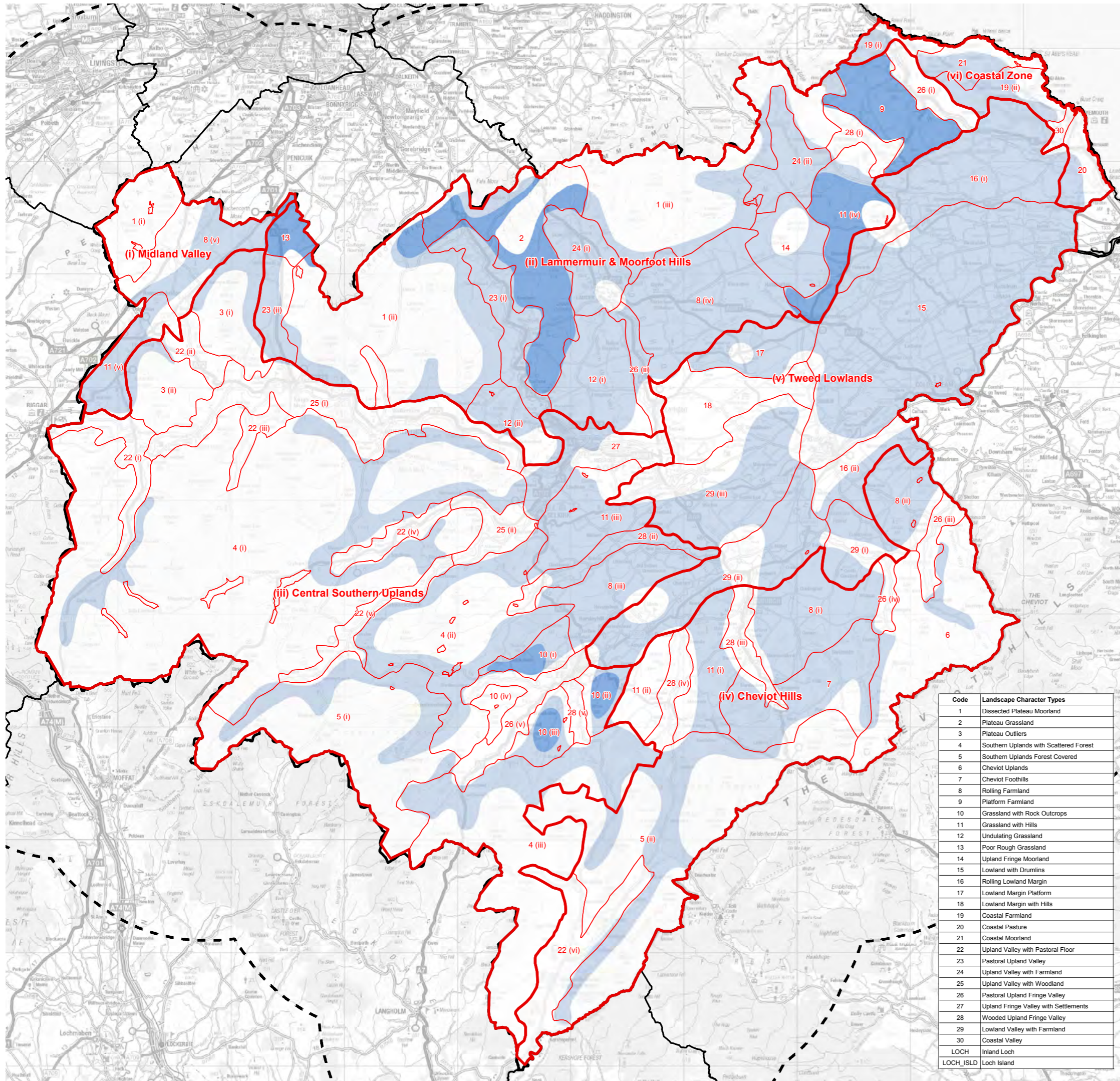
Code	Landscape Character Types
1	Dissected Plateau Moorland
2	Plateau Grassland
3	Plateau Outliers
4	Southern Uplands with Scattered Forest
5	Southern Uplands Forest Covered
6	Cheviot Uplands
7	Cheviot Foothills
8	Rolling Farmland
9	Platform Farmland
10	Grassland with Rock Outcrops
11	Grassland with Hills
12	Undulating Grassland
13	Poor Rough Grassland
14	Upland Fringe Moorland
15	Lowland with Drumlins
16	Rolling Lowland Margin
17	Lowland Margin Platform
18	Lowland Margin with Hills
19	Coastal Farmland
20	Coastal Pasture
21	Coastal Moorland
22	Upland Valley with Pastoral Floor
23	Pastoral Upland Valley
24	Upland Valley with Farmland
25	Upland Valley with Woodland
26	Pastoral Upland Fringe Valley
27	Upland Fringe Valley with Settlements
28	Wooded Upland Fringe Valley
29	Lowland Valley with Farmland
30	Coastal Valley
LOCH	Inland Loch
LOCH_ISLD	Loch Island

**Figure 6.1a**  
15 - <35m Turbines  
Underlying Landscape Capacity









## Legend

- Regional Landscape Areas
- SBC Local Authority Boundary
- Local Authority Boundary 15km Buffer
- Other Local Authority Boundaries
- Landscape Character Areas

## Landscape Capacity (35 to <50m)

- High
- Medium
- Low
- None

### Note:

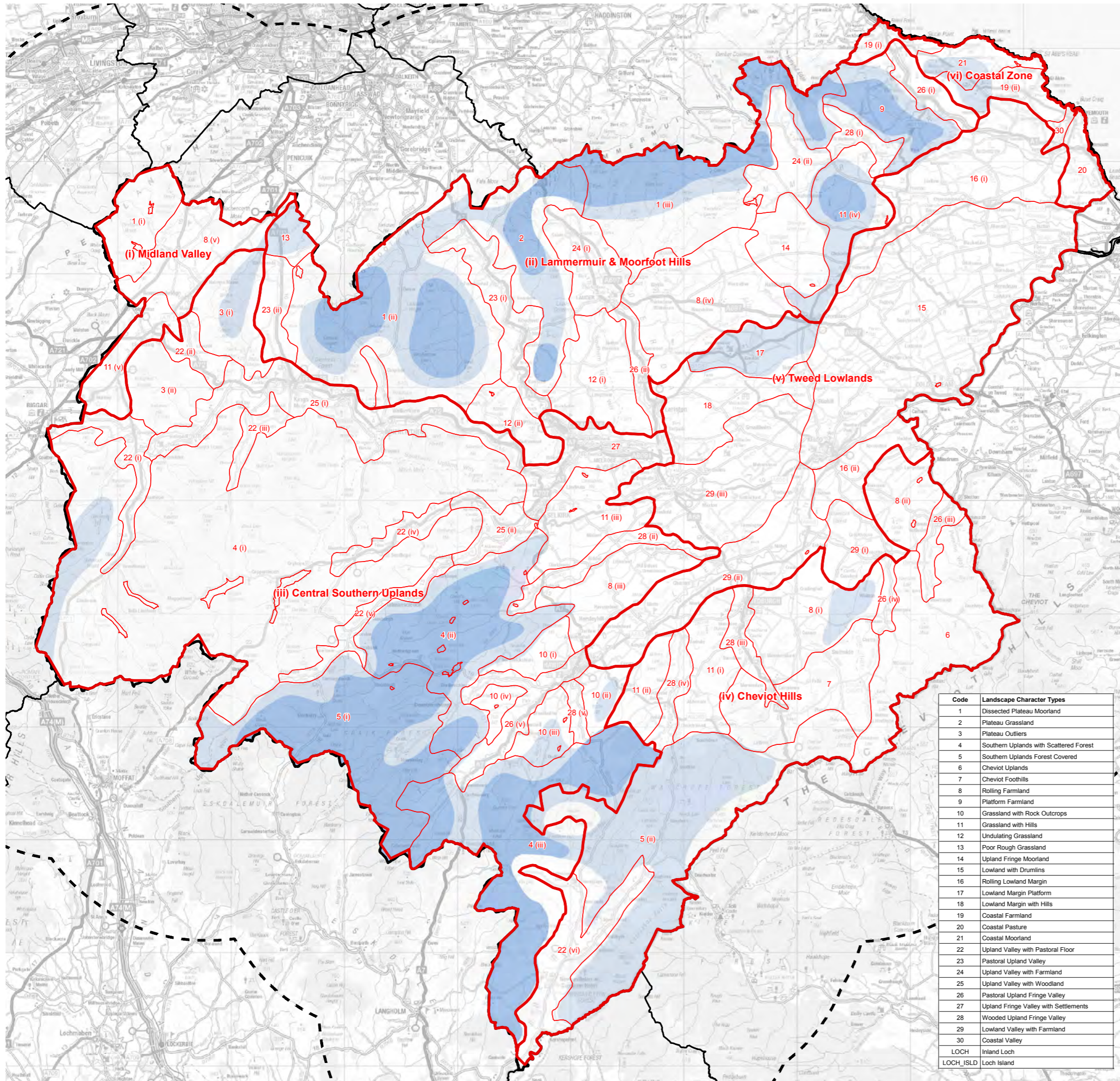
The shaded areas show an indicative level of capacity and its extent within and across different landscape character areas. These areas should not be interpreted as a hard boundary and reference should be made to the detailed capacity assessment and locational guidance given in Table 6.1.

Code	Landscape Character Types
1	Dissected Plateau Moorland
2	Plateau Grassland
3	Plateau Outliers
4	Southern Uplands with Scattered Forest
5	Southern Uplands Forest Covered
6	Cheviot Uplands
7	Cheviot Foothills
8	Rolling Farmland
9	Platform Farmland
10	Grassland with Rock Outcrops
11	Grassland with Hills
12	Undulating Grassland
13	Poor Rough Grassland
14	Upland Fringe Moorland
15	Lowland with Drumlins
16	Rolling Lowland Margin
17	Lowland Margin Platform
18	Lowland Margin with Hills
19	Coastal Farmland
20	Coastal Pasture
21	Coastal Moorland
22	Upland Valley with Pastoral Floor
23	Pastoral Upland Valley
24	Upland Valley with Farmland
25	Upland Valley with Woodland
26	Pastoral Upland Fringe Valley
27	Upland Fringe Valley with Settlements
28	Wooded Upland Fringe Valley
29	Lowland Valley with Farmland
30	Coastal Valley
LOCH	Inland Loch
LOCH_ISLD	Loch Island

**Figure 6.1b**  
35 - <50m Turbines  
Underlying Landscape Capacity







## Legend

- Regional Landscape Areas
- SBC Local Authority Boundary
- Local Authority Boundary 15km Buffer
- Other Local Authority Boundaries
- Landscape Character Areas

## Underlying Landscape Capacity (50 to <80m)

- High
- Medium
- Low
- None

### Note:

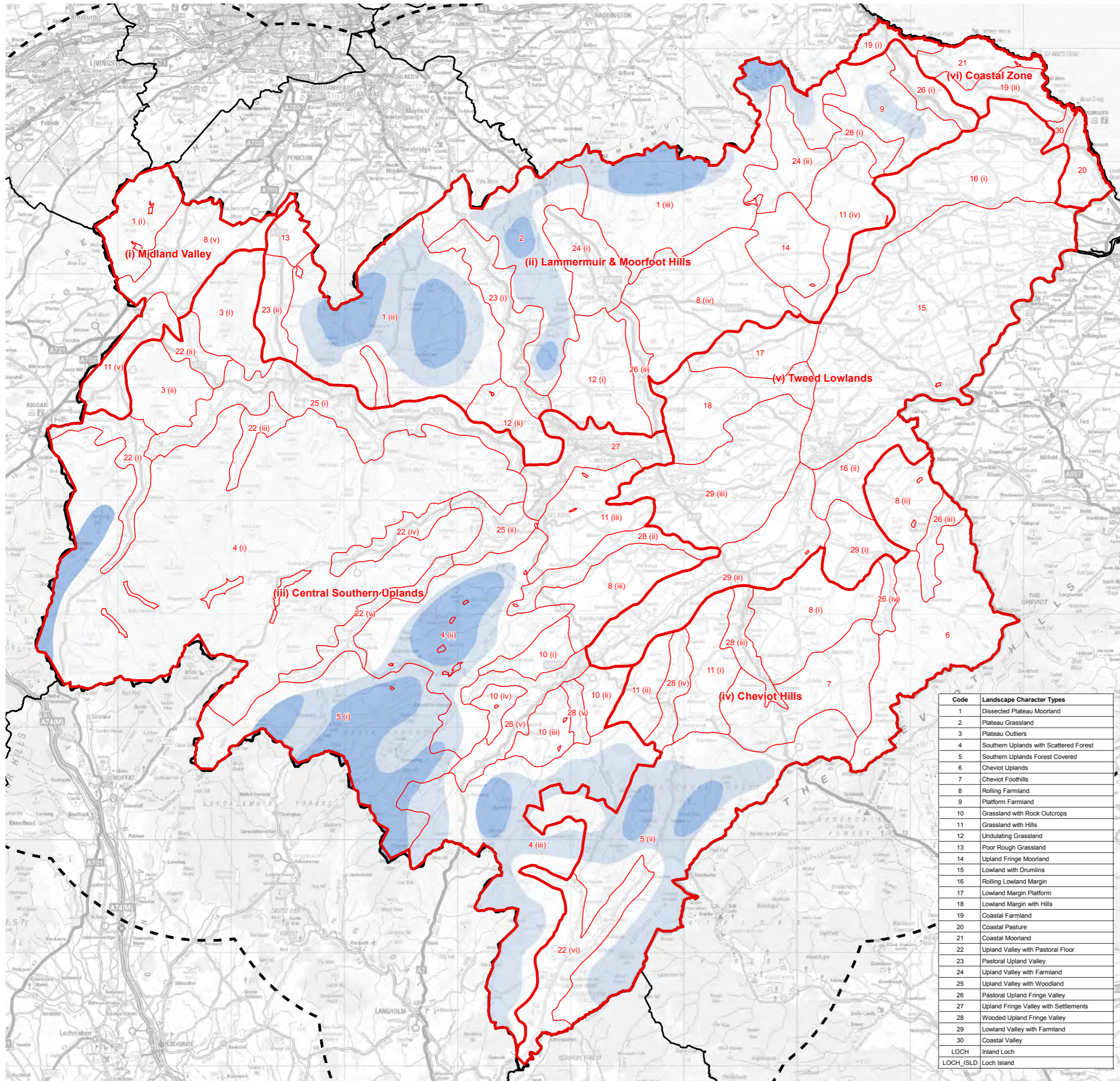
The shaded areas show an indicative level of capacity and its extent within and across different landscape character areas. These areas should not be interpreted as a hard boundary and reference should be made to the detailed capacity assessment and locational guidance given in Table 6.1.

Code	Landscape Character Types
1	Dissected Plateau Moorland
2	Plateau Grassland
3	Plateau Outliers
4	Southern Uplands with Scattered Forest
5	Southern Uplands Forest Covered
6	Cheviot Uplands
7	Cheviot Foothills
8	Rolling Farmland
9	Platform Farmland
10	Grassland with Rock Outcrops
11	Grassland with Hills
12	Undulating Grassland
13	Poor Rough Grassland
14	Upland Fringe Moorland
15	Lowland with Drumlins
16	Rolling Lowland Margin
17	Lowland Margin Platform
18	Lowland Margin with Hills
19	Coastal Farmland
20	Coastal Pasture
21	Coastal Moorland
22	Upland Valley with Pastoral Floor
23	Pastoral Upland Valley
24	Upland Valley with Farmland
25	Upland Valley with Woodland
26	Pastoral Upland Fringe Valley
27	Upland Fringe Valley with Settlements
28	Wooded Upland Fringe Valley
29	Lowland Valley with Farmland
30	Coastal Valley
LOCH	Inland Loch
LOCH_ISLD	Loch Island

**Figure 6.1c**  
50 - <80m Turbines  
Underlying Landscape Capacity







## Legend

- Regional Landscape Areas
- SBC Local Authority Boundary
- Local Authority Boundary 15km Buffer
- Other Local Authority Boundaries
- Landscape Character Areas

## Underlying Landscape Capacity (80 to <120m)

- High
- Medium
- Low
- None

### Note:

The shaded areas show an indicative level of capacity and its extent within and across different landscape character areas. These areas should not be interpreted as a hard boundary and reference should be made to the detailed capacity assessment and locational guidance given in Table 6.1.

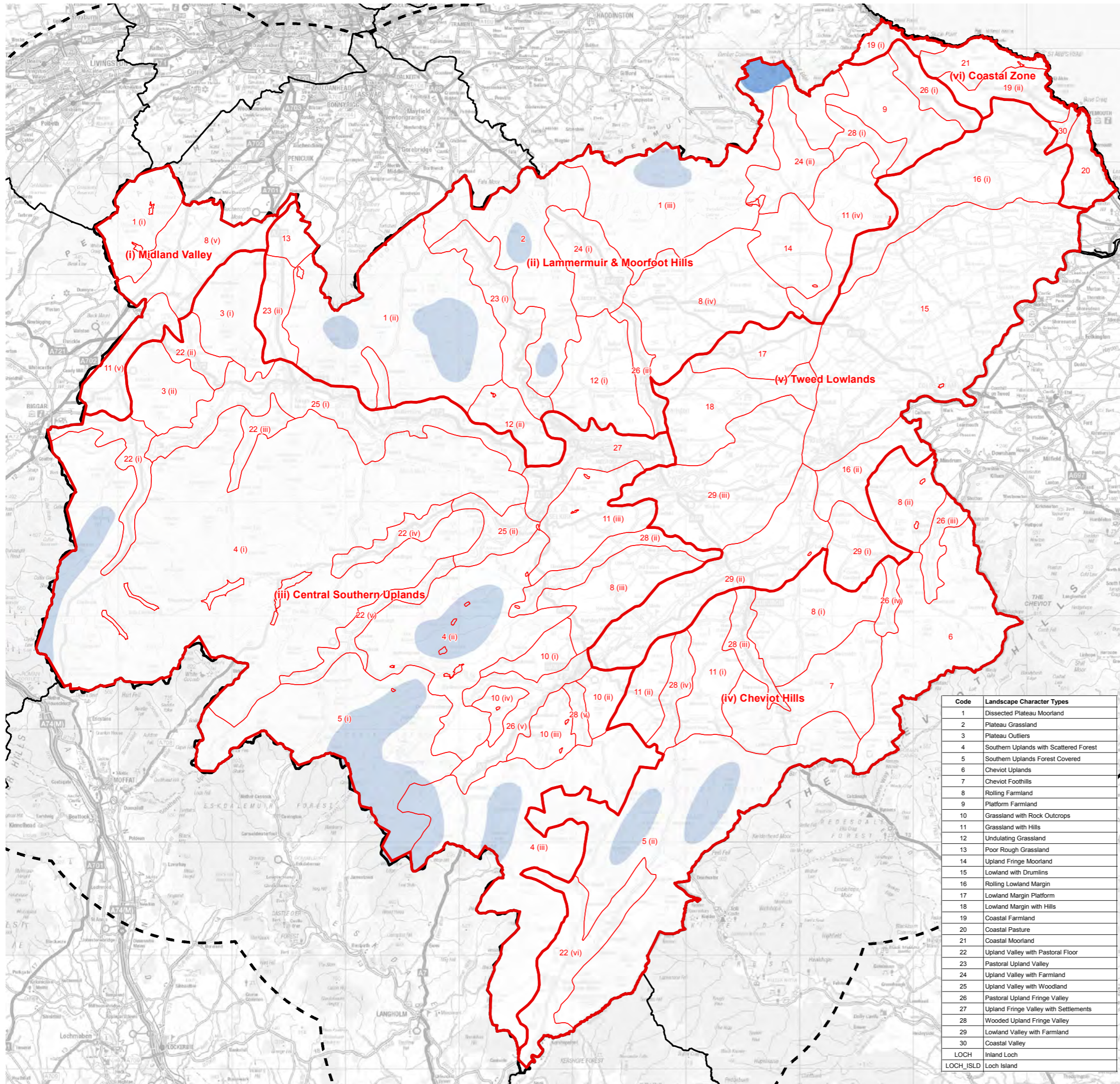
Code	Landscape Character Types
1	Dissected Plateau Moorland
2	Plateau Grassland
3	Plateau Outliers
4	Southern Uplands with Scattered Forest
5	Southern Uplands Forest Covered
6	Cheviot Uplands
7	Cheviot Foothills
8	Rolling Farmland
9	Platform Farmland
10	Grassland with Rock Outcrops
11	Grassland with Hills
12	Undulating Grassland
13	Poor Rough Grassland
14	Upland Fringe Moorland
15	Lowland with Drumlins
16	Rolling Lowland Margin
17	Lowland Margin Platform
18	Lowland Margin with Hills
19	Coastal Farmland
20	Coastal Pasture
21	Coastal Moorland
22	Upland Valley with Pastoral Floor
23	Pastoral Upland Valley
24	Upland Valley with Farmland
25	Upland Valley with Woodland
26	Pastoral Upland Fringe Valley
27	Upland Fringe Valley with Settlements
28	Wooded Upland Fringe Valley
29	Lowland Valley with Farmland
30	Coastal Valley
LOCH	Inland Loch
LOCH_ISLD	Loch Island

**Figure 6.1d**  
80 - <120m Turbines  
Underlying Landscape Capacity



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## Legend

- Regional Landscape Areas
- SBC Local Authority Boundary
- Local Authority Boundary 15km Buffer
- Other Local Authority Boundaries
- Landscape Character Areas

## Underlying Landscape Capacity (120m+)

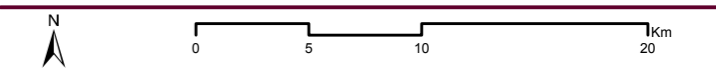
- High
- Medium
- Low
- None

### Note:

The shaded areas show an indicative level of capacity and its extent within and across different landscape character areas. These areas should not be interpreted as a hard boundary and reference should be made to the detailed capacity assessment and locational guidance given in Table 6.1.

Code	Landscape Character Types
1	Dissected Plateau Moorland
2	Plateau Grassland
3	Plateau Outliers
4	Southern Uplands with Scattered Forest
5	Southern Uplands Forest Covered
6	Cheviot Uplands
7	Cheviot Foothills
8	Rolling Farmland
9	Platform Farmland
10	Grassland with Rock Outcrops
11	Grassland with Hills
12	Undulating Grassland
13	Poor Rough Grassland
14	Upland Fringe Moorland
15	Lowland with Drumlins
16	Rolling Lowland Margin
17	Lowland Margin Platform
18	Lowland Margin with Hills
19	Coastal Farmland
20	Coastal Pasture
21	Coastal Moorland
22	Upland Valley with Pastoral Floor
23	Pastoral Upland Valley
24	Upland Valley with Farmland
25	Upland Valley with Woodland
26	Pastoral Upland Fringe Valley
27	Upland Fringe Valley with Settlements
28	Wooded Upland Fringe Valley
29	Lowland Valley with Farmland
30	Coastal Valley
LOCH	Inland Loch
LOCH_ISLD	Loch Island

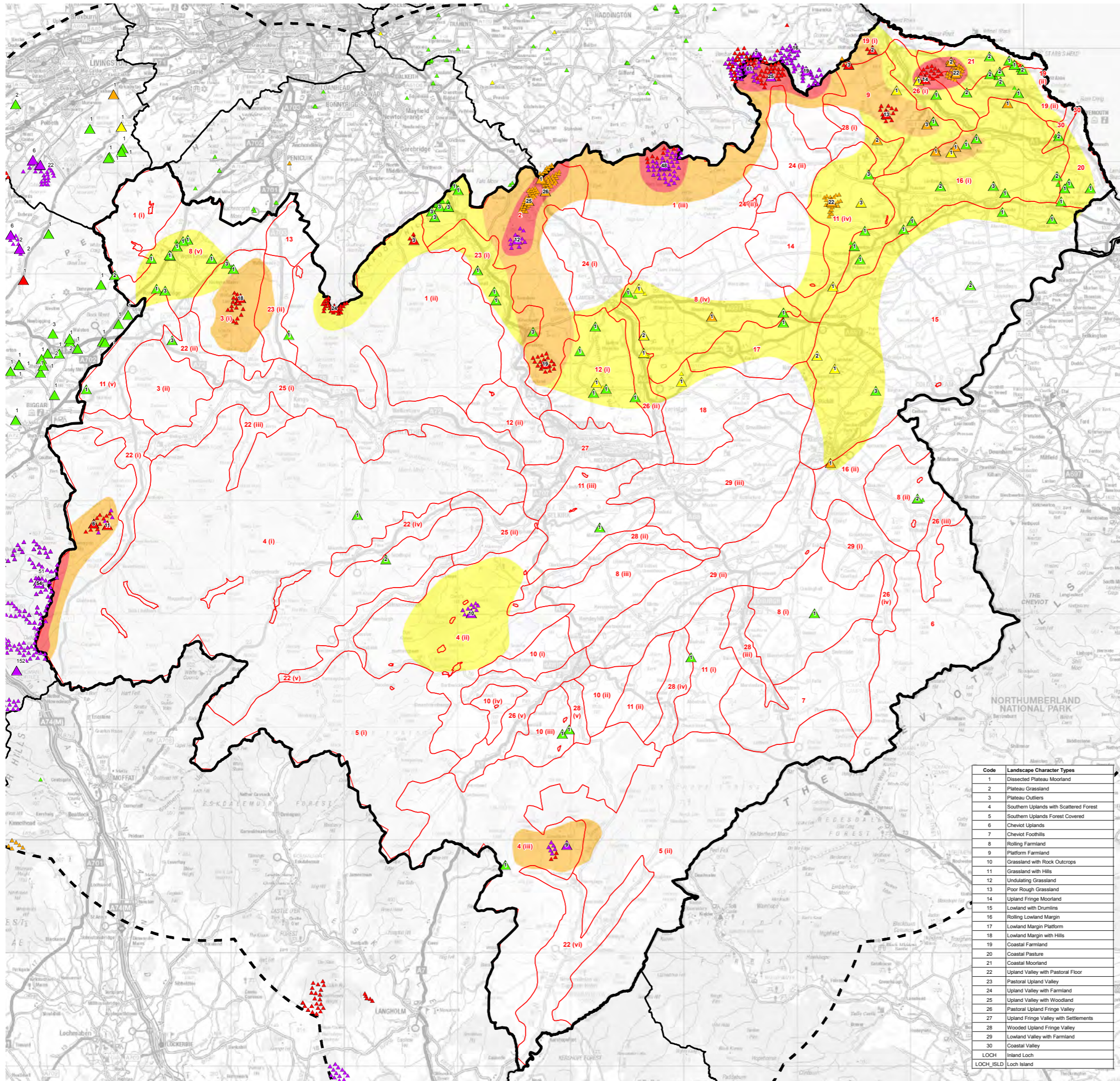
**Figure 6.1e**  
120m+ Turbines  
Underlying Landscape Capacity



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## Legend

### Windfarm: Status, Height Category

- ▲ Operational / Consented, Cat 1: 15 to <35m
- ▲ Operational / Consented, Cat 2: 35 to <50m
- ▲ Operational / Consented, Cat 3: 50 to <80m
- ▲ Operational / Consented, Cat 4: 80 to <120m
- ▲ Operational / Consented, Cat 5: 120m+

- SBC Local Authority Boundary
- Local Authority Boundary 15km Buffer
- Other Local Authority Boundaries
- SNH Landscape Character Areas

### Typology

- Wind Turbine Landscape
- Landscape with Wind Turbines
- Landscape with Occasional Wind Turbines
- Landscape with No Wind Turbines

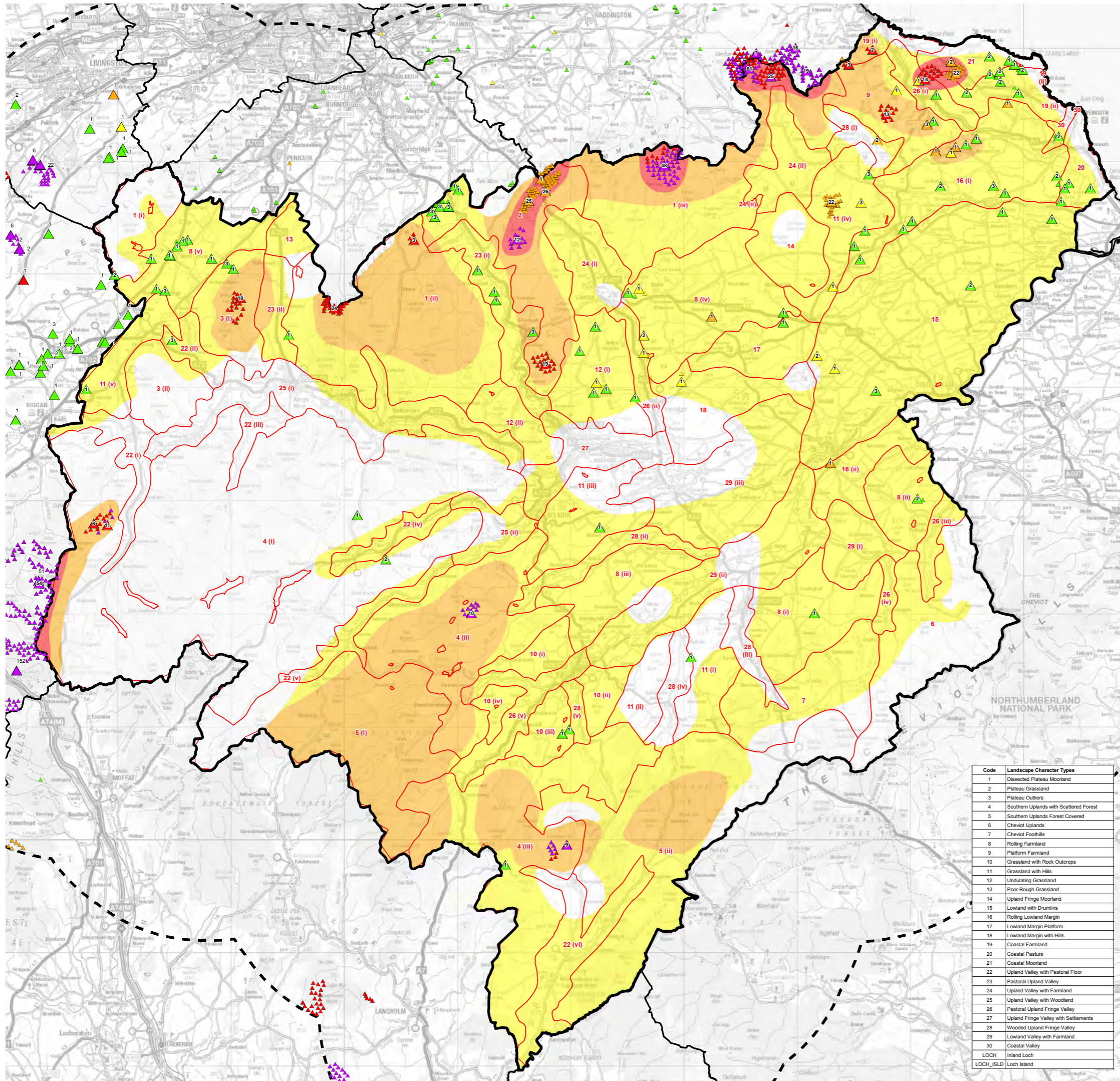
Code	Landscape Character Types
1	Dissected Plateau Moorland
2	Plateau Grassland
3	Plateau Outliers
4	Southern Uplands with Scattered Forest
5	Southern Uplands Forest Covered
6	Cheviot Uplands
7	Cheviot Foothills
8	Rolling Farmland
9	Platform Farmland
10	Grassland with Rock Outcrops
11	Grassland with Hills
12	Undulating Grassland
13	Poor Rough Grassland
14	Upland Fringe Moorland
15	Lowland with Drumlins
16	Rolling Lowland Margin
17	Lowland Margin Platform
18	Lowland Margin with Hills
19	Coastal Farmland
20	Coastal Pasture
21	Coastal Moorland
22	Upland Valley with Pastoral Floor
23	Pastoral Upland Valley
24	Upland Valley with Farmland
25	Upland Valley with Woodland
26	Pastoral Upland Fringe Valley
27	Upland Fringe Valley with Settlements
28	Wooded Upland Fringe Valley
29	Lowland Valley with Farmland
30	Coastal Valley
LOCH	Inland Loch
LOCH_ISLD	Loch Island

**Figure 6.2**  
Current Wind Turbine Landscape Typology: Operational & Consented Windfarms



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## Legend

### Windfarm: Status, Height Category

- ▲ Operational / Consented, Cat 1: 15 to <35m
- ▲ Operational / Consented, Cat 2: 35 to <50m
- ▲ Operational / Consented, Cat 3: 50 to <80m
- ▲ Operational / Consented, Cat 4: 80 to <120m
- ▲ Operational / Consented, Cat 5: 120m+

- SBC Local Authority Boundary
- Local Authority Boundary 15km Buffer
- Other Local Authority Boundaries
- SNH Landscape Character Areas

### Typology

- Wind Turbine Landscape
- Landscape with Wind Turbines
- Landscape with Occasional Wind Turbines
- Landscape with No Wind Turbines

Code	Landscape Character Types
1	Dissected Plateau Moorland
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27	Upland Fringe Valley with Settlements
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29	Lowland Valley with Farmland
30	Coastal Valley
LOCH	Inland Loch
LOCH_ISLD	Loch Island

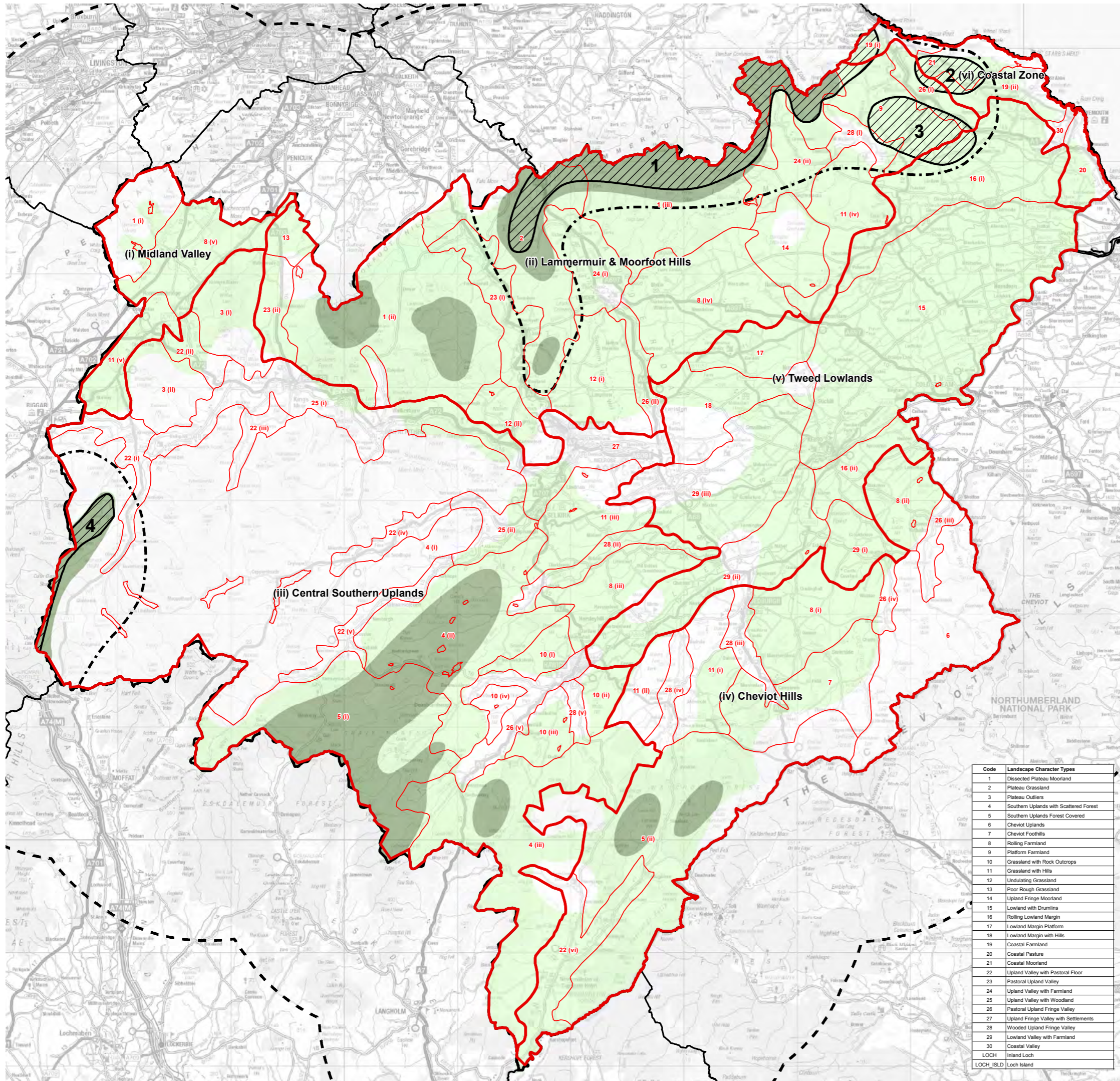
**Figure 6.3**

**Wind Turbine Landscape Typology: Proposed Maximum Development Capacity**



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## Legend

- Regional Landscape Areas
- SBC Local Authority Boundary
- Local Authority Boundary 15km Buffer
- Other Local Authority Boundaries
- Areas of Significant Cumulative Development:**
  1. Coastal Zone, Lammermuir Hills and Lauder Common
  2. Coldingham Moor
  3. Eye Water Platform
  4. Western Central Southern Uplands (see Table 6.2 for further details)
- Landscape Character Areas
- Areas Where Cumulative Impacts Limit Development

## Capacity

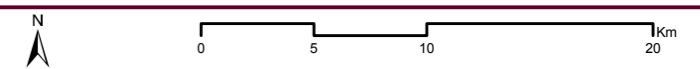
- Areas with Highest Capacity
- Areas with Limited Capacity
- Areas with Very Limited Capacity or No Capacity

## Note:

Areas shown are indicative and reference should be made to the detailed guidance in Table 6.1 and discussion in Section 6.4.

Code	Landscape Character Types
1	Dissected Plateau Moorland
2	Plateau Grassland
3	Plateau Outliers
4	Southern Uplands with Scattered Forest
5	Southern Uplands Forest Covered
6	Cheviot Uplands
7	Cheviot Foothills
8	Rolling Farmland
9	Platform Farmland
10	Grassland with Rock Outcrops
11	Grassland with Hills
12	Undulating Grassland
13	Poor Rough Grassland
14	Upland Fringe Moorland
15	Lowland with Drumlins
16	Rolling Lowland Margin
17	Lowland Margin Platform
18	Lowland Margin with Hills
19	Coastal Farmland
20	Coastal Pasture
21	Coastal Moorland
22	Upland Valley with Pastoral Floor
23	Pastoral Upland Valley
24	Upland Valley with Farmland
25	Upland Valley with Woodland
26	Pastoral Upland Fringe Valley
27	Upland Fringe Valley with Settlements
28	Wooded Upland Fringe Valley
29	Lowland Valley with Farmland
30	Coastal Valley
LOCH	Inland Loch
LOCH_ISLD	Loch Island

**Figure 6.4**  
Wind Turbine Development Opportunities and Constraints





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## APPENDICES

