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1

Introduction

- 1.1 European Directive 2009/28/EC identifies a target for its Member States to collectively produce 20% of its energy from renewable sources by 2020. Each Member State has been given an individual target, taking into account the varying 2010 baseline renewable energy levels and potential for each country. Based upon this assessment, the UK has a target to produce 15% of its energy from renewable energy sources by 2020.
- 1.2 The 2015 Digest of United Kingdom Energy Statistics showed that nationally in 2014, a new record was produced in terms of the amount of electricity generated by renewable energy. The 2014 figure was 19.1%, an increase of 4.3% from 2013. Local planning authorities can contribute to the national target by promoting the use of renewable energy and facilitating appropriate new development through the planning system.
- 1.3 A Ministerial Statement was issued on 18th June 2015, which subsequently amended the Planning Practice Guidance, stating that Local Plans (or relevant Neighbourhood Plans) should identify areas suitable for wind energy development in order to assist the decision making process when planning applications are submitted. All planning applications, including extensions to time and repowering schemes, for wind energy development will be assessed in relation to the identified wind energy areas.
- 1.4 The change to the national guidance is a material planning consideration in the preparation of the Local Plan (Part 2); this paper has been written to provide evidence to show how the Council has considered this.

2

Policy Context

National Policy

National Planning Policy Framework

- 2.1 The National Planning Policy Framework came into force in March 2012 in order to ensure planning delivers sustainable development through both the determination of planning applications and the preparation of local planning policy.
- 2.2 There are 12 core planning principles identified in the document that should underpin plan-making and decision taking. Included in the core planning principles is the need to support the transition to a low carbon future, including the encouragement for the use of renewable energy.
- 2.3 Chapter 10 sets out the national stance that supporting the delivery of renewable and low carbon energy is central to the economic, social and environmental dimensions of sustainable development. In order to support this delivery, local planning authorities are required to have a positive strategy to promote energy from renewable and low carbon sources and have policies that maximise the use of such energy whilst ensuring that adverse impacts are addressed satisfactorily. Local planning authorities are also encouraged to identify suitable areas for renewable and low carbon energy sources and any supporting infrastructure.

Planning Practice Guidance

- 2.4 The Planning Practice Guidance was released in March 2014; it is an online resource which provides detailed guidance on the content of the National Planning Policy Framework. The document states that planning has an important role in the delivery of new renewable and low carbon energy infrastructure in locations where the local environmental impact is acceptable.
- 2.5 The changes introduced in the Ministerial Statement of June 2015 have been incorporated into the Planning Practice Guidance. When identifying suitable areas for wind energy through the Local Plan process, the technological requirements and the potential impacts on the local environment must be taken into account. A planning application for wind turbines should only be granted if the development is in an area identified as suitable for wind energy development in a Local Plan and it can be demonstrated that the planning impacts identified by affected local communities have been fully addressed.

2

Policy Context

Regional Policy

- 2.6 Following the revocation of the North West Regional Spatial Strategy in May 2013, there are no regional renewable energy policies or targets.

Sub-Regional Policy

- 2.7 A number of local planning authorities in Cumbria (Allerdale, Carlisle, Copeland, Eden, South Lakeland, Lake District National Park Authority and Cumbria County Council) jointly produced a Cumbria Wind Energy Supplementary Planning Document in 2007; this was adopted by Allerdale Borough Council in January 2008.
- 2.8 This guidance was developed to support the development and implementation of renewable energy policies in planning policy documents and provide consistent guidance for wind energy development across the County. The document is in two parts; Part 1 provides general planning guidance for wind energy schemes covering a range of factors including: biodiversity; highways; landscape; visual impact; and cumulative effects. Part 2 provides specific guidance on landscape and visual issues and an assessment of the landscape capacity for each of the main landscape types in Cumbria.

Local Policy

- 2.9 The Local Plan (Part 1) – Strategic and Development Management Policies – was adopted in July 2014. Policy S19 (see Figure 1 below) of this adopted document provides a positive framework for the development of renewable energy across the district, reflecting both national planning policy and local evidence.
- 2.10 The supporting text for Policy S19 introduces a minimum separation distance of 800m between wind turbines (over 25m to blade tip) and residential properties. However, it is accepted that in some cases, site specific factors may lead to the variation of this threshold if it can be demonstrated that there would be no unacceptable impact on residential amenity.

2

Policy Context

The Council will seek to promote and encourage the development of renewable and low carbon energy resources given the significant wider environmental, community and economic benefits. Proposals where impacts (either in isolation or cumulatively) are, or can be made acceptable will be permitted.

The Council will take a positive view where;

a) Proposals (either in isolation or cumulatively);

i) Do not have an unacceptably adverse impact on the amenity of local residents (such as air quality/emissions, noise, odour, water pollution, shadow flicker);

ii) Do not have significant adverse impact on the location, in relation to visual impact and impact on the character and sensitivity of the surrounding landscape;

iii) Do not have an adverse effect on any European/International protected nature conservation site (including SACs, SPAs and Ramsar sites, candidate SACs, potential SPAs and proposed Ramsar sites) including its qualifying habitats and species, either alone or in-combination with other plans or projects.

iv) Do not have a significant adverse effect on any National nature conservation site (Site of Special Scientific Interest; National Nature Reserve), except where the benefits of the development clearly outweigh both the impact on the site and any broader impacts on the wider network of National sites.

v) Do not result in loss or harm to a Local nature conservation site, including habitats or species supported by Local Sites, unless it can be demonstrated that there is a need for the development in that location and that the benefit of development outweighs the harm or loss.

iv) Do not have unacceptably adverse impact on heritage assets and their settings;

b) In the case of wind turbines, it can be demonstrated that the development would not result in a significant adverse effect (either in isolation or cumulatively) on protected bird species, including designated sites and migration routes;

c) Appropriate operational requirements are addressed (including accessibility and suitability of road network, ability to connect to the grid, proximity of any relevant feedstock);

d) Appropriate measures are included for the removal of structures and the restoration of sites, should sites become non-operational;

e) Potential benefits to the local economy and the local community, including agriculture and other land based industries are considered.

Within Hadrian's Wall World Heritage Site and its buffer zone, and the Solway Coast Area of Outstanding Natural Beauty only small scale renewable energy schemes, which preserve the special qualities of these designations and accord with the aims and objectives of their Management Plans will be acceptable.

Renewable energy proposals are expected to provide supporting evidence including landscape, visual and environmental assessments and to demonstrate that any negative impacts have been made acceptable. Where mitigation is required to make impacts acceptable these will, where necessary be secured through Planning Obligations. Developers will be expected to work with local communities from an early stage and deliver benefits to the local area where the proposal is located.

Figure 1: Policy S19 of the Local Plan (Part 1)

3

Suitable Areas for Wind Energy in Allerdale

Introduction

- 3.1 According to the Cumbria Renewable Energy Capacity and Deployment Report (prepared in 2011), Allerdale has a deployment of around 207MW; this includes schemes that were operational, under construction and consented. Since the report there has been an additional 3.47MW, 3.32MW, 10.629MW, 16.31825MW and 12.538MW approved in 2011/12, 2012/13, 2013/14, 2014/15 and 2015/16 respectively. This suggests the current level of consented and deployed renewable energy output is approximately 253MW across Allerdale Local Plan Area.
- 3.2 The Government has produced data showing the levels of actual installed, capacity and generation levels in each local authority area. Allerdale was shown to have 141MW of installed capacity, generating 536,635MWh per year (approximately 61MW).

	Number of installations	Capacity	Generation
Photovoltaics	1,151	5MW	4,487MWh
Onshore Wind	60	83MW	193,297MWh
Hydro	6	0MW	699MWh
Anaerobic digestion	3	2MW	10,118MWh
Landfill gas	1	2MW	2,310MWh
Plant biomass	1	49MW	325,724MWh
District Total	1,222	141MW	536,635MWh

Table 1: Levels of renewable energy in Allerdale as of December 2014

(Source: <https://www.gov.uk/government/statistics/regional-renewable-statistics> September 2015)

- 3.3 Within the National Planning Policy Framework, local planning authorities are encouraged to consider identifying suitable areas for renewable and low carbon energy sources where this would help secure their development.
- 3.4 Paragraph 97 of the National Planning Policy Framework refers local planning authorities to the National Policy Statement for Renewable Energy Infrastructure for guidance on site selection factors. The factors include: predicted wind speed; proximity of site to dwellings; capacity of a site; electricity grid connection; and access. Whilst these factors have been designed to assess nationally significant renewable energy infrastructure (including onshore wind energy developments over 50MW), it is considered that the factors can be equally applicable to smaller wind energy developments.

3

Suitable Areas for Wind Energy in Allerdale

- 3.5 The Planning Practice Guidance recognises that there is not a set methodology of how to identify suitable areas for renewable energy, but local planning authorities must take into account the requirements of the technology and the potential impacts on the local environment.
- 3.6 Following the release of the Ministerial Statement, there are three options which the Council can explore in response to its requirements:
- Option 1 – do nothing.
 - Option 2 – identify the whole district as an area suitable for wind energy development.
 - Option 3 – identify the whole district as suitable for wind energy development, with the exclusion of some sensitive areas.
- 3.7 This chapter assesses the potential of all three options and identifies the most appropriate way forward.

Exploration of Options

Option 1 – Do nothing

- 3.8 This option would mean that the Council would not include a map within the Local Plan that identifies specific areas within the district which would be considered suitable for wind energy development. It would therefore result in the Council continuing to determine planning applications for wind turbines based upon our adopted Local Plan policy, and the Ministerial Statement issued in June 2015.
- 3.9 It is considered that not to identify an area suitable for wind energy development would be at odds with the Ministerial Statement and the National Planning Policy Framework.

Option 2 – Identify the whole district (excluding the Lake District National Park) as an area suitable for wind energy development

- 3.10 This option would prove to be the most expedient in terms of time and resources and it would fulfil the requirements set out in the Ministerial Statement as the Council would have an identified area.

3

Suitable Areas for Wind Energy in Allerdale

- 3.11 This approach could be considered to be proactive in terms of encouraging the development of renewable and low carbon energy as it would not limit applications for such uses to specific locations. Given that no sites were put forward for consideration for renewable and low carbon energy throughout the Site Allocation process, it could be assumed that there is no demand for site specific allocations for this land use.
- 3.12 The situation would remain the same as it is currently, meaning that the Council will deal with planning applications for wind turbines in any part of the district as and when they are received using current planning policies.

Option 3 – Identify the whole district (excluding the Lake District National Park) as suitable for wind energy development, with the exclusion of some sensitive areas

- 3.13 This approach involves utilising existing evidence base documents to exclude areas of the district that could be considered unsuitable for wind energy development.
- 3.14 The first stage in doing this is to carry out an assessment of the technical capacity in Allerdale for wind energy development and the capacity of Allerdale's landscape to accommodate wind energy development (based upon the Cumbria Renewable Energy Capacity and Deployment Study, Cumbria Wind Energy Supplementary Planning Document and Cumbria Landscape Character Guidance and Toolkit).
- 3.15 The second stage is to give consideration to the sensitivity of Allerdale's landscape to cumulative impacts arising from installed and potential future wind turbines and other vertical infrastructure development (Cumulative Impacts of Vertical Infrastructure Study).

Technical Capacity

- 3.16 The Cumbria Renewable Energy Capacity and Deployment Study provides information on the potential renewable energy resources that could be harnessed across Cumbria. The Study sets out the opportunities and constraints to delivering renewable energy in Cumbria through a range of renewable energy sources.
- 3.17 The Study revealed that Cumbria has a substantial potential renewable energy resource (4,558.82MW) until 2030; onshore wind energy formed the largest part of this, amounting to 63% of the total potential capacity (2885.6MW). Across all of the potential renewable energy sources, Allerdale has the potential to contribute to 24% of the total. However, when looking specifically at onshore wind energy, 29% of the county output would derive from wind energy developments solely within Allerdale.

3

Suitable Areas for Wind Energy in Allerdale

- 3.18 Once the potential resource had been identified, the Study then identified the landscape capacity constraints (taken from the Cumbria Wind Energy SPD) that could limit the potential for commercial wind farm development. Table 2 summarises the revised potential capacity, taking into account the identified landscape constraints. It shows that despite the district having a potential capacity of 834.8MW for wind energy, once the landscape constraints are considered, this reduces by 41% to 493.5MW.

	Large (MW) (125m to blade tip)	Medium (MW) (90m to blade tip)	Small (MW) (65m to blade tip)	Total (MW)
Initial potential capacity	471.2	25.9	337.7	834.8
Potential capacity taking into account landscape constraints	188.3	16.6	288.6	493.5
Reduction taking landscape capacity into account	282.9 (-60%)	9.3 (-36%)	49.1 (-15%)	341.3 (-41%)

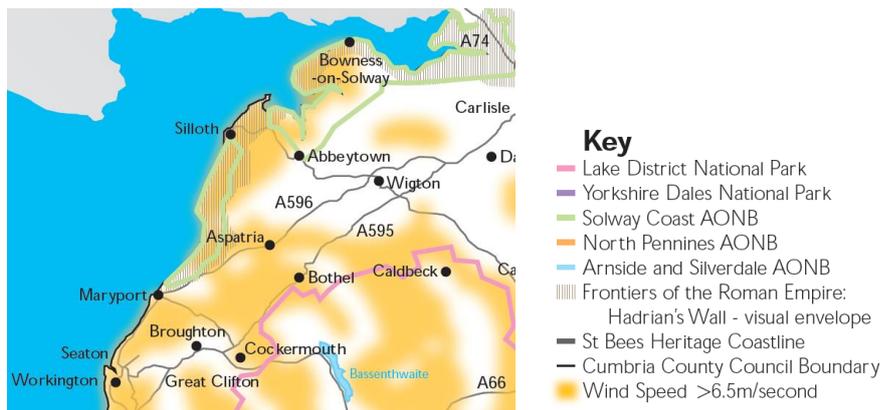
Table 2: Potential Wind Energy Capacity in Allerdale

(Source: Tables 5-9, 5-10 and 5-11 of the Cumbria Renewable Energy Capacity and Deployment Study)

- 3.19 The Study identified that in 2011, Allerdale had a current wind energy deployment (consented and operational schemes) of 207MW – this represented 70% of the overall county deployment.
- 3.20 The Cumbria Wind Energy SPD states that the wind resource in Cumbria is greatest on west facing upland sites and along the coast. Map 1 shows the estimated mean wind speed in metres per second for values over 6.5metres per second which is the speed considered suitable for wind development according to National Renewable Energy Laboratory ([http://spp.gatech.edu/sites/default/files/publication/download/201409/FEPS White%20Paper 092314 0.pdf](http://spp.gatech.edu/sites/default/files/publication/download/201409/FEPS%20White%20Paper%20092314%200.pdf)). However, this is not to say that wind turbines could not be located in areas with lower wind speed.
- 3.21 The SPD identifies that many of the windiest parts of Cumbria falls within national landscape designations, including the Solway Coast Area of Outstanding Natural Beauty and the Lake District National Park. Both the SPD and the Allerdale Local Plan includes policies to protect the landscape value of these areas and their settings in order to limit the level of wind energy development that is likely to take place there.

3

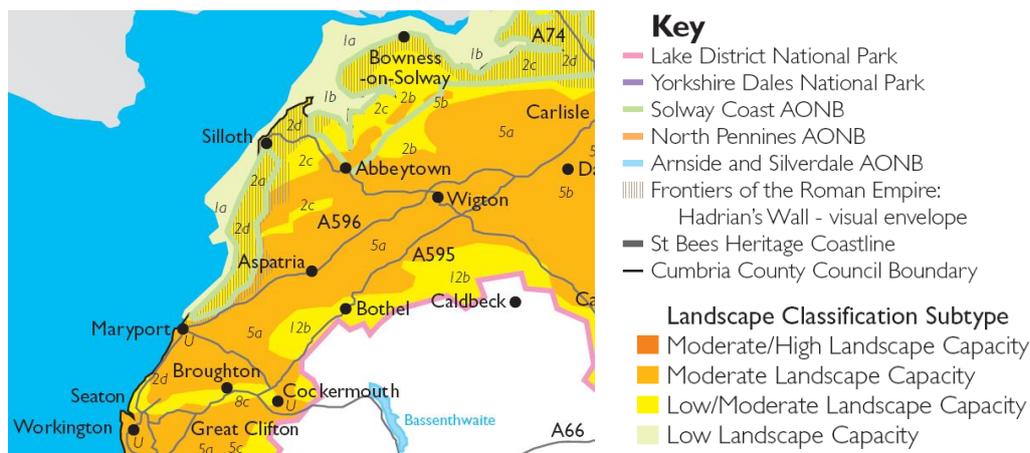
Suitable Areas for Wind Energy in Allerdale



Map 1: Areas of wind speed greater than 6.5 metres per second in Allerdale (Source: Cumbria Wind Energy SPD)

Landscape Capacity

3.22 Landscape constraints are an important consideration in the determination of planning applications for wind turbines given Allerdale’s high quality landscape. Map 2 shows the capacity of the landscape to accommodate wind energy.



Map 2: Landscape capacity for wind energy development (Source: Cumbria Wind Energy SPD)

3

Suitable Areas for Wind Energy in Allerdale

3.23 Map 2 also includes references to the landscape types across the district; Table 3 provides a brief summary of the landscape types in relation to their overall sensitivity to development and their general capacity for wind turbines. Appendix 1 contains the full details for each landscape type.

Landscape Type	Overall Sensitivity	Capacity
1 – Estuary and Marsh	Moderate/High	Low
2 – Coastal Margins	Moderate/High	Low/Moderate
5 – Lowland	Moderate	Moderate.
6 – Intermediate Farmland	Moderate	Moderate
8 - Main Valleys	Moderate/High	Low/Moderate
9 – Intermediate Moorland and Plateau	Moderate	Low/Moderate
11 – Upland Fringes	Moderate	Low/Moderate
12 – Higher Limestone	Moderate/High	Low/Moderate

*Table 3: Summary of landscape type capacity
(Source: Cumbria Wind Energy SPD, Part 2)*

Cumulative Impacts

3.24 Allerdale Borough Council, in partnership with Cumbria County Council, Lancashire County Council, Carlisle City Council and the Lake District National Park Authority, commissioned a study assessing the impact of all vertical energy and communications infrastructure over 15m. This work resulted in the production of the 'Cumulative Impact and Vertical Infrastructure Study' which was released in October 2014.

3.25 The study seeks to assess how existing and proposed developments involving the introduction of vertical elements into the landscape are resulting in cumulative effects on landscape character and visual amenity. It also seeks to identify the degree to which cumulative effects of vertical infrastructure developments upon landscape character may be considered a constraint.

3.26 Figure 2 identifies the sensitivity of landscapes in relation to small (15m-50m), medium (51m-100m) and large scale (101m and over) vertical infrastructure.

3

Suitable Areas for Wind Energy in Allerdale

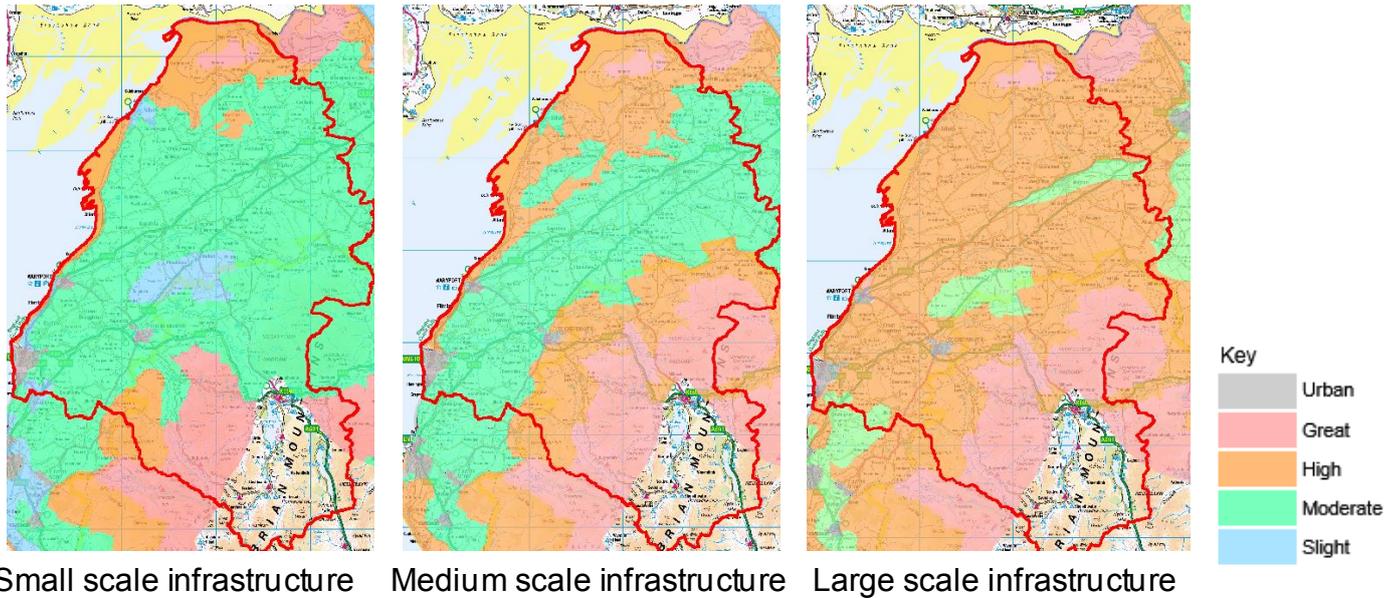


Figure 2: Landscape sensitivity to different scales of vertical infrastructure (Source: Cumulative Impacts of Vertical Infrastructure, Cumbria County Council)

3.27 The study then assesses the direct and indirect magnitude of change on the landscape in respect of small, medium and large scale infrastructure.

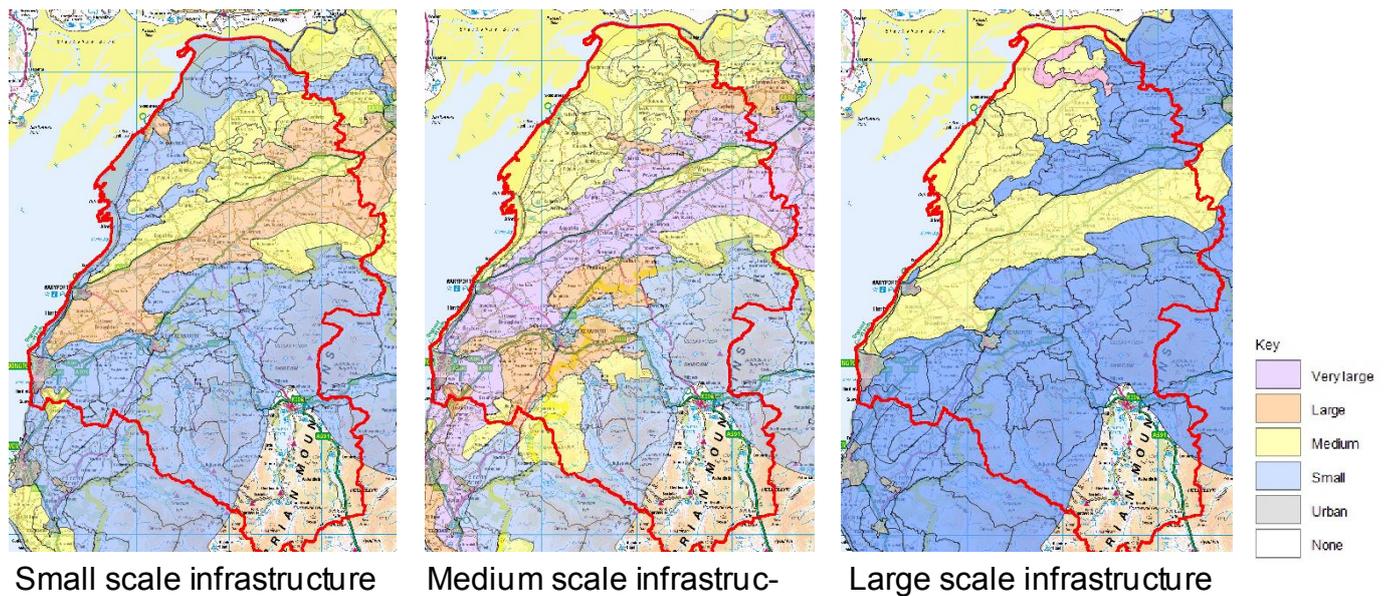


Figure 3: Magnitude of landscape change to different scales of vertical infrastructure

3

Suitable Areas for Wind Energy in Allerdale

- 3.28 The evidence presented in Figures 2 and 3 were then combined in order to identify the overall significance of cumulative landscape effect. This identified that different parts of the Solway Coast AONB suffers from Great Significance of effect and Significant effects. Significant cumulative landscape effects were also recorded along the western coastline and the inland corridor between Workington and Carlisle.

Planning applications for wind energy in Allerdale

- 3.29 Between 1st April 2011 and 31st March 2016, Allerdale Borough Council received 124 applications for a total of 154 turbines (see Appendix 2). Of the 124 applications, 51 (41%) were approved or allowed at appeal, 33 (27%) were refused or dismissed at appeal and 40 (32%) were withdrawn.
- 3.30 67.7% of the 124 applications were for 'small' structures (less than 50m) and 29.8% were for 'medium' structures (51m-100m); two applications (1.6%) were received for turbines larger than 100m. The average tip height of the turbines was 49m and the average power output per turbine was 397.5kW. With regard to use, 85 of the applications (68.5%) were for private use, 32 (25.8%) were for commercial use and 7 (5.7%) did not state what the use was. Private use means the majority of the power generated from the turbine is to be used for domestic purposes/to support a business; some remaining power may then be sold back to the Grid. Commercial use relates to schemes specifically designed to produce power for the local distribution network (but the majority are located on farms which could provide rental income for local farmers).
- 3.31 These figures demonstrate that the majority of the demand for turbines across the district is for small, domestic turbines with some demand for large, commercial turbines.

Identifying the area of search in Allerdale

- 3.32 Looking at the evidence and information available, it is clear that there are areas within Allerdale that would be particularly sensitive to the installation of wind turbines.
- 3.33 Whilst Map 1 has identified that the area around the Solway Coast does have a good wind resource (at least 6.5 metres per second), Map 2, Figure 2 and Figure 3 all identify that there are capacity and landscape sensitivity issues with locating vertical infrastructure in this area, especially for those structures of medium (51m-100m) and large scale (101m and over). However, this does not mean that all wind turbine development should be precluded in this area.

3

Suitable Areas for Wind Energy in Allerdale

- 3.34 All of the evidence and information included within this paper supports Policy S19 of the Local Plan (Part 1) (see Figure 1). This states that “*within Hadrian’s Wall World Heritage Site and its buffer zone, and the Solway Coast Area of Outstanding Natural Beauty only small scale renewable energy schemes, which preserve the special qualities of these designations and accord with the aims and objectives of their Management Plans will be acceptable*”.
- 3.35 Therefore, it is considered that the area of the Hadrian’s Wall World Heritage Site and its buffer zone and the Solway Coast Area of Outstanding Natural Beauty should be excluded from the area identified as suitable for wind energy development for medium and large scale structures.
- 3.36 In addition, a buffer zone will be placed alongside the Allerdale and the Lake District National Park boundary to reflect the recent designation of the Lake District National Park as a World Heritage Site. This buffer zone has been chosen based upon Landscape Types 11a and 12b of the Cumbria Landscape Guidance and Toolkit document. These landscape types were judged to be the most suitable to use to make clear that the most prominent upland areas adjacent to the National Park boundary (and against which the Lake District National Park is viewed) are not appropriate for medium and large scale wind turbine development.
- 3.37 It is considered that Policy S19 offers a flexible approach for wind turbine development in these identified sensitive areas as it will allow suitable, small scale renewable energy schemes which are consistent with relevant Management Plans and other Local Plan policies.

4

Conclusion

- 4.1 Appendix 3 contains a map detailing the proposed areas considered suitable for wind energy development in Allerdale.
- 4.2 However, it should be noted that just because an area has been defined as suitable for wind energy development, it does not mean that all planning applications for wind turbine development will be considered acceptable. Not all sites within the broad areas will be suitable for development as there will be constraints which cannot be satisfactorily addressed; all applications will be assessed against adopted Local Plan policies.
- 4.3 If communities bring forward Neighbourhood Plans within the district, they may seek to amend the areas identified as suitable for wind energy development within the designated Neighbourhood Area.

LANDSCAPE TYPE 1: ESTUARY AND MARSH

Landscape Sub-Types	1a Intertidal Flats 1b Coastal Marsh
Key Characteristics	Sensitivity
Landscape Character:	
<p>Scale and Enclosure Large scale landscape of wide beaches and mudflats along exposed outer coastline and around estuaries mouths. Flat landform provides distant horizons, panoramic views and big skies. Enclosure behind beaches by low cliffs, sand dunes, raised beaches. Scale reducing in the sheltered inner estuaries and marshes (1b) with protecting enclosure of land and fells. Estuarine vistas featuring Lakeland or Scottish peaks. Enclosure behind marshes (1b) by sea dykes, railway embankments, gorse scrub and hedges. Small details such as the winding creeks reduce the sense of scale overall.</p>	<p>Moderate (3) Within estuaries medium to large scale suggests scope for group sized development. However may appear incongruous against small scale intricacies and inner estuaries are highly sensitive due to their intimate scale and narrowed zones of visibility. Expansive scale and exposure of broader outer estuaries suggests scope for a larger development evoking a rational, functional image.</p>
<p>Complexity and Order Unique attraction of this landscape centres on its dynamic nature with shifting patterns of texture, colour and play of light. Shimmering water gives way to golden sands or shining silt. Wide beaches are strewn with patches of boulders (scaurs) and have upper foreshores of shingle. Estuarine mudflats are etched by a maze of minor channels. Salt marshes (1b) comprise closely grazed turf with an intricate pattern of creeks, gorse scrub and remnant hedges on higher marshes. Prolific birdlife is integral to character offering feeding and roosting ground for waders (1a) and wildfowl (1b).</p>	<p>High (5) Vertical turbine structures would provide a strong contrast with the simple flatness of this landscape. However its intrinsic character lies largely in the fascinating and dynamic patterns either reflected or etched across its surface. Turbine development likely to relate poorly to irregular and intricate detail of these natural patterns. Turbine development out in the broader estuary mouths may avoid such difficulties and create a simple focal point.</p>
<p>Manmade Influence Essentially natural landscapes spoilt only by minor or distant eyesores. Marine litter and old industrial waste can spread along the beaches. A few isolated large structures are visible around margins including power stations, terminals, sea rigs, and transmission masts. Fishing on the mudflats for cockles etc and grazing marshes by sheep and cattle. Historical drove routes of 'waths' across inner estuaries but very few modern road and rail crossings.</p>	<p>High (5) The semi-natural land cover and associated birdlife creates a strong sense of 'wildness', which may be perceived as being compromised by turbine development. There are few opportunities to relate to existing man-made features and forms. However a distant and isolated turbine grouping could form a point of focus comparable to other large structures around the margins of this landscape.</p>
<p>Skyline Coastal skyline uninterrupted and smooth –giving way to wide open skies with only a few distant isolated large structures around the margins. Inner southern estuaries dramatically enclosed by Lakeland fells and limestone escarpments.</p>	<p>Moderate/High (4) Isolated turbine grouping could form a point of focus and clear contrast with simple and subdued coastal skylines. However likely to mar or compete with skylines defined by picturesque fells or distinctive limestone escarpments.</p>
<p>Connections and Adjacent Landscapes Estuaries stretch well inland and strongly interact with other landscapes to form picturesque compositions. Southern estuaries have strong links with neighbouring high ground including coastal limestone (3), the Lakeland fells and their foothills (11a) and moorland extensions (9d). These create significant backdrops to Type 1 as well as prospects of it. Slight elevation of neighbouring dunes (2a) also provides extensive vantage over this landscape.</p>	<p>High (5) Picturesque compositions and vistas vulnerable to turbine development. Open prospects from neighbouring fells and dunes also sensitive.</p>
<p>Remoteness and Tranquillity Essentially remote with disturbance limited to tourism and recreation pressures around the edges. Writers emphasise the stillness and tranquillity of the estuaries as an essential quality. Sense of remoteness attributable to absence of manmade features and open majestic scale makes viewer feel small and vulnerable and evokes a sense of freedom. Wild peaceful character of marshes reinforced by birdlife and grazing stock.</p>	<p>High (5) Noise and movement of turbines likely to compromise sense of peace, isolation and remoteness.</p>
Visual:	
<p>Visual Interruption Exposed landscape with no interrupting features. Landward edge of the marshes generally defined by dykes, beaches and estuary mouths by sand dunes, low cliffs or raised beaches.</p>	<p>High (5) Turbine development likely to be widely visible. Potential for visual confusion around low enclosure features due to partial visibility.</p>
<p>Settlement and Key Views Notably absent although development of coastal towns, villages and camp sites around the fringes has responded to vistas across the estuaries. Hadrian's Wall Trail, Cumbria Coastal Way and Cycle Way also offer extensive vantage over this landscape.</p>	<p>Moderate (3) Localised potential for over dominance and intrusion.</p>
Overall Sensitivity	Moderate/High

LANDSCAPE TYPE 1: ESTUARY AND MARSH

Value	
Landscape Designations and Planning Policies	Scale it Matters and Why
Frontiers of the Roman Empire: Hadrian's Wall World Heritage Site and Setting 1b and fringes of 1a in inner Solway Estuary (setting)	International: Protection of core archaeological features of the Roman wall and coastal defences as well as their landscape setting or buffer zone
Solway Coast AONB Majority of 1b in Solway Estuary	National: Conservation and enhancement of natural beauty attributable to: wild and remote qualities due to absence of large scale industrialisation, main roads and railways; rich presence of birdlife and expansive area of saltmarshes; distinctive contrasting sequence of coastal margins/ farmland and mossland; open and attractive views to Scottish coast and Lakeland fells; small distinctive villages.
Arnside and Silverdale AONB Part of 1a and 1b at head of Kent Estuary in Morecambe Bay	National: Conservation and enhancement of natural beauty attributable to its: scenic qualities including the distinctiveness of its Carboniferous limestone; mosaic of contrasting landscape types; dramatic views over Morecambe Bay; wildlife resources; cultural, archaeological and historic heritage; intimate scale and tranquillity.
Landscape of County Importance Remainder of 1a and 1b beyond AONBs apart from sections of 1a along outer West Cumbrian coast	County: Protection of distinctive character attributable to: dramatic unobstructed views; fascinating patterns across sands or water and channels etched in marshes; absence of detractors; unique and sublime compositions with adjacent fells and simplicity creating a strong positive response.
Rarity	Area of County
1a Intertidal Flats 1b Coastal Marsh	7.5%: common 1.0%: rare
Conservation Interests and Associations	Description
Geology and Geomorphology Dynamic processes of coastal erosion and deposition Small RIGGS near St Bees	Mudflats have greatly increased over centuries following progressive siltation. Sediments derive mainly from Irish Sea. River channels are constantly shifting and thereby affecting extent of salt marshes. Long shore drift operates on open coast. Features of marsh include dendritic creeks and erosion cliffs on seaward edge, terraces related to isostatic uplift and creek migrations and isolated water known as pans or floshes.
Ecology Extensive habitats and internationally important for bird life Extensive designation of 1a and 1b in main estuaries as SPA's, SACs and SSSIs No designations on beaches of outer coastline except SAC/SSSI at Drigg	Mudflats of Cumbria some of most important habitats in UK supporting huge numbers of invertebrates such as cockles and providing main feeding grounds for internationally important numbers of wintering and passage waders and wildfowl eg shelduck, dunlin and redshank. Boulder scaurs support mussel beds providing feeding grounds for eider duck, turnstone etc. Marshes also of international importance as feeding grounds for wildfowl and roosts for waders eg pink-footed geese, Bewick swans, curlew and golden plover. Peregrine falcon and merlin hunt over marshes in winter. Other birds breed there eg redshank. Marshes also support uncommon and rare invertebrates and natterjack toads and great-crested newts.
Historic Environment Some localised interest	Number of wrecks in Morecambe Bay. Throughout evidence of historical rights of way or waths, various cultural artefacts relating to shipping and trade. Good survival of organic artefacts eg prehistoric forests; fish traps due to waterlogged conditions. On marshes remains include settlements lost to sea, former quays and salt pans.
Cultural Scenic qualities and historic routes have inspired poets, painters and writers. Solway associated with historical characters and events.	Routes across estuaries described by numerous writers eg Elizabeth Gaskell in "Sextons Hero". Estuaries also well documented through work of artists and poets eg Wordsworth, JNW Turner, David Cox, Norman Nicholson, Paul Nash and Thomas Sutherland. Invasion of Scotland via Solway anticipated by Edward 1 st in 1307 and Mary Queen of Scots fled rebellion in Scotland by boat down Solway Firth in 1568.

LANDSCAPE TYPE 1: ESTUARY AND MARSH

Capacity Statement

Overall the Estuary and Marsh landscape is judged to have **low** capacity to accommodate turbine development. Potential is limited by the high sensitivity of many of its inherent and unique characteristics, moderate/high to high landscape value recognised by LoCI and AONB designations*, and strong ecological interest and cultural associations.

Any type of turbine development would have the potential to impinge on the natural character and strong sense of remoteness, tranquillity and wildness for which this landscape is valued. Its flat openness affords panoramic views which would be compromised, particularly where the estuaries combine with neighbouring dunes, mossland, farmed coastal plain and fells to create unique and picturesque estuarine compositions. Turbine development would also detract from the dynamic spectacle of shifting patterns of texture colour and play of light across sea, sand, marsh and sky.

There appears to be limited potential in the broad estuary mouths for isolated turbine development to create a focal point, comparable to other isolated structures around the margins of this landscape and in simple contrast with flat or subdued coastal skylines. The expansive scale and exposure here suggests that development up to wind farm size might be accommodated and benefit from a strong sense of purpose and rationality in such a location. However existing permissions for nearby off-shore developments suggests these areas are at or near capacity.

Particular sensitivities in relation to the setting of international and national designations include:

- *contribution of open sea, foreshore and salt-marshes to a sense of wildness, the sequence of contrasting landscapes and uninterrupted views across to Scotland in the Solway Coast AONB*
- *open sequential views from recreation and tourist routes along the coastal edge of the Solway Coast AONB and Frontiers of the Roman Empire: Hadrian's Wall across the Solway Firth to Scottish mountains and across the coastal plain towards the Lakeland fells most notably from Cumbria Coastal Way, the B5300, National Cycle Route 72, Hadrian's Wall Trail and from viewpoints at coastal forts associated with the Wall*
- *contribution to tranquil and picturesque compositions with fells in the Lake District NP and limestone hills of the Arnside and Silverdale AONB around the southern estuaries*
- *key views to and from the Furness Fells within the Lake District NP most notably sequential views from the trunk road and tourist route skirting the edge of the Park, Cumbria Way and National Cycle Route 72*

* For those areas that fall within the Solway Coast or Arnside and Silverdale Area of Outstanding Natural Beauty Policy R45 in the Cumbria and Lake District Joint Structure Plan 2001 – 2016 applies

LANDSCAPE TYPE 2: COASTAL MARGINS

Landscape Sub-Types	2a Dunes and Beaches 2c Coastal Plain 2b Coastal Mosses
Key Characteristics	Sensitivity
Landscape Character:	
<p>Scale and Enclosure Variable largely flat open large scale landscapes with big skies, long views and large rectangular fields where vertical features stand out. Hummocky dunes (2a) offer shelter and small scale interest. On glacial till farmland/mosses (2b/2c) can be undulating, more enclosed and intimate with smaller irregular fields. Some localised enclosure and scale indicators include dunes, sea dykes, rail embankments, plantations, moss woodland, gorse and willow scrub, hedges and copses (increasingly scarce and wind shaped towards coast).</p>	<p>Moderate (3) Large group would not intimidate broader scale of flat open farmland, whilst in more contained undulating terrain a small group would be more appropriate. In close range large turbines may appear incongruous against small scale landforms and land cover features of dunes, mosses and more marginal undulating areas. Exposed coastal margins of Solway Plain and Walney fringes evoke a strong design rationale.</p>
<p>Complexity and Order Soft organic forms and textured detail of dunes and beaches (2a) contrasts with simple flatness and rectilinear patterns of coastal plain (2c). Large square fields of improved pasture with some arable cropping are divided by hedges or fences and bordered by ditches and straight roads. Blocks of conifers common at head of estuaries. Varies to more irregular patterns and richer variety of textures and colours in undulating areas and mosses (2b) with mosaics of heath, willow/birch scrub and rough pasture with rushes/ gorse and into smaller narrow fields</p>	<p>Moderate (3) Opportunities for ordered grouping of turbines to mirror geometric regular field patterns and form a simple contrast with the horizontal plane. Sensitivity increases where landscape varies to more irregular forms and complex mosaics with natural vegetation.</p>
<p>Manmade Influence Mix of farmland and semi-natural areas with isolated farmsteads and small villages. Strong local vernacular of cobblestone or clay built buildings, walls and banks. Heritage of Roman wall and forts and dismantled railways. Occasional modern structures include hard sea defences, drainage channels, pylons, masts, industrial buildings and hangars near urban fringe, farm sheds and silos. Tourism development on outer coast eg caravan parks, golf courses. Land management eg intensive farming, forestry and large scale peat cutting.</p>	<p>Moderate/High (4) Limited scope to relate to similar man-made structures. Some potential to relate to 'working' character of intensively farmed areas with engineered aspects and integration with larger scale geometric manmade land cover patterns. However likely to appear incongruous against heritage and vernacular features.</p>
<p>Skyline Landform generally has horizontal emphasis producing open views, strong coastal horizons and big skies. Smooth towards coast rougher inland with woodland cover and backdrops of higher ground. Attractive Distinctive backdrop of fells to inner margins of southern estuaries. Occasionally villages, farmsteads, copses or masts stand out as prominent features.</p>	<p>Moderate (3) Opportunity for isolated turbine grouping to form a predictable and simple contrast with horizontal plane. However there are issues related to maintenance of clear simple horizons and conflict with more complex skylines around southern estuaries.</p>
<p>Connections and Adjacent Landscapes Quite complex due to configuration. Margins of southern estuaries benefit from picturesque backdrop of Lakeland fells, limestone escarpments, foothills and moorland (3, 11a, 9d). Contrast with Solway plain intertwined with low farmland ridges (5a) which interrupt views but also offer occasional prospects. Dunes (2a) offer prospects of estuaries (1) and coastal plain (2c). Elsewhere coastal plain tends to bleed into coastal urban fringe (2d).</p>	<p>Moderate/High (4) Contribution to picturesque compositions, fine vistas and setting of LDNP around southern estuaries and sequence of Solway AONB landscapes both vulnerable. Open prospects from neighbouring higher ground of ridges fells and dunes also sensitive. However visual interruption created by neighbouring ridges around Solway coastal plain may assist turbine development depending on height.</p>
<p>Remoteness and Tranquillity Dunes and beaches (2a) enjoy a sense of peace and remoteness apart from fringes disturbed by tourism. The mosses and coastal plain (2b and 2c) are generally peaceful backwaters relatively untouched by modern development.</p>	<p>Moderate/High (4) Noise and movement of turbines could detract from peaceful backwater characteristics.</p>
Visual:	
<p>Visual Interruption Largely open, flat or undulating farmland or mosses. Some containment features increasing inland including tall windbreak hedges, engineered railway and flood defence embankments, buildings, scrub woodland and plantations.</p>	<p>Moderate/High (4) Turbine development on exposed outer margins with greatest wind resource likely to stand out. Some localised screening but also potential for visual confusion around low enclosure features due to partial visibility.</p>
<p>Settlement and Key Views Dispersed pattern of small villages and isolated farmsteads connected by network of minor roads across 2c and outer Solway part of 2a. Tend to be nucleated in form although becoming more linear due to recent ribbon development especially along coast. Tightly knit with stone walls for shelter on outer coasts. Can occupy higher ground: tops of hills; raised beaches and sites along Frontiers of the Roman Empire: Hadrian's Wall or lower lying around fringes of the mosses. Caravan sites and tourist routes around outer coast. Hadrian's Wall Trail, Cumbria Coastal Way and Cycle Way, NCR 72 and B5300 also offer extensive vantage.</p>	<p>High (5) Limited scope to site development away from settled areas or tourism facilities. Size of development constrained by small scale nature of existing settlements with potential for over dominance.</p>
Overall Sensitivity	Moderate/High

LANDSCAPE TYPE 2: COASTAL MARGINS

Value	
Landscape Designations and Planning Policies	Scale it Matters and Why
<p>Frontiers of the Roman Empire: Hadrian's Wall World Heritage Site and Setting Around inner Solway fringes of 2c (site and setting) and along outer Solway 2b and fringes of 2c (setting)</p>	International: Protection of core archaeological features of the Roman wall and coastal defences as well as their landscape setting
<p>Solway Coast AONB Dunes (2a) and seaward edges of Solway Plain (2c and 2b)</p>	National: Conservation and enhancement of natural beauty attributable to: wild and remote qualities due to absence of large scale industrialisation, main roads and railways; rich presence of birdlife and expansive area of saltmarshes; distinctive contrasting sequence of coastal margins/ farmland and mossland; open and attractive views to Scottish coast and Lakeland fells; small distinctive villages.
<p>Landscape of County Importance Most of 2a and b. 2c on Walney Island and around Duddon and Leven Estuaries (Solway and South Lakeland parts excluded)</p>	County: Protection of distinctive character attributable to unusual landforms of dunes and plain with rocky outcrops; rich variety of natural textures and colours; absence of detractors; impressive views with backdrop of Lakeland fells; vernacular features eg cobble banks, early field enclosure patterns and quietness creating a strong positive response.
<p>Registered Historic Parks and Gardens Holker Hall</p>	National: Protection of special historic interest of parks and gardens and their settings
<p>Ancient Woodland Generally absent some blocks around Leven Estuary</p>	National/Regional: Conservation of ancient semi-natural woodlands as irreplaceable nature conservation assets with associated interests including characteristic landscapes
Rarity	Area of County
<p>2a Dunes and Beaches 2b Coastal Mosses 2c Coastal Plain</p>	<p>0.2%: rare 0.9%: rare 3.8%: ordinary</p>
Conservation Interests and Associations	Description
<p>Historic Environment Diverse interest with concentration along internationally important Hadrian's Wall, on the mosses and in villages. Conservation Areas: Several villages across Solway coastal plain (2c) and Biggar on Walney Island</p>	<p>Volatile environment in dunes (2a) remodelled by wave and wind action, erodes have revealed evidence of prehistoric settlement. Mosses (2b) contain evidence of reclamation associated with abbeys, evidence of peat rooms in long narrow enclosures, traditional field patterns of small irregular enclosure and later larger more regular enclosure. Also important for 20th century military sites. Highly nucleated settlement pattern on coastal plain (2c) with evidence of late enclosure outfields. 17th and 18th century vernacular buildings of local red sandstone in north and clay buildings on Solway Plain. Most significant archaeological feature is Frontiers of the Roman Empire: Hadrian's Wall and associated forts. Some villages occupy sites of former forts eg Burgh-by-Sands.</p>
<p>Ecology Dunes and mosses important habitats extensively designated for international or national importance, localised interest across coastal plain Most of 2a dunes designated as SSSIs sometimes as SACs and around Walney Island as SPAs. Extensive designation of 2b mosses around Solway as SACs, SSSIs and NNRs, but around Duddon only partial coverage. 2c mostly undesignated occasional small sites including outlying mosses, moss and saltmarsh fringes and LPOs on east side of Leven Estuary.</p>	<p>Dunes and slacks (2a) support natterjack toads, plus breeding colonies of great crested –newts eider duck, terns and gulls. Also important for rare plants eg coralroot orchid. Wetter areas of lowland raised bogs or mires that dominate mosses (2b) support sphagnum moss and cotton grass whist drier areas support heather, birch and Scots Pine and drained margins can support large areas of rush and purple moor grass pasture. Wildlife interest on mosses includes rare butterflies, lizards, dragonflies, reed bunting, skylark and redshank. Most of coastal plain (2c) agriculturally improved with interest confined to wooded remnant mires important for red squirrel, wintering wildfowl and farmland birds eg corn bunting in fields and otter, Atlantic salmon and sand martins along rivers.</p>

LANDSCAPE TYPE 2: COASTAL MARGINS

Capacity Statement

Overall the Coastal Margins landscape is judged to have **low/moderate** capacity to accommodate a small turbine group and exceptionally a large group. Potential is limited by the overall moderate/high sensitivity of its variable landscape character, moderate/high to high landscape value of parts recognised by LoCI and Solway Coast AONB designation*, rarity of dunes and mosses and strong ecological and historical interests.

The Solway Coast is distinguished by a remarkable sense of wildness and remoteness, due to the presence of extensive wildlife habitats, lack of large scale industrialisation and absence of main roads and railways. Overall scenic quality is based on a diverse sequence of open sea, foreshore, salt-marshes, dunes and heath contrasting with inland landscapes of farmed coastal plain and mossland. These are both essential qualities of the AONB and are likely to be compromised by any scale of wind energy development.

Elsewhere much of the coastal plain landscape is large scale and open with simple rectilinear field patterns that would aid the integration of a small – large group of turbines in a geometric layout. The ‘engineered’ character of the drained coastal plain and mosses would provide an appropriate context for turbine development. However there are some characteristics of the landscape that are more sensitive to turbine development and which substantially reduce capacity in the landscape as a whole.

A primary constraint is the limited extent of flat coastal plain and configuration into narrow strips. In the south around the Duddon and Leven it combines with neighbouring fells and intertidal flats to form picturesque estuarine landscapes vulnerable to the intrusion of turbine development. Around the Solway it is fragmented by patches of more contained undulating terrain and irregular mosaics of semi-natural vegetation found on undulating boulder clay and remnant mosses where turbines could be over dominant and less readily integrated.

The flat coastal horizons, big skies offer opportunities for simple contrast and the outer exposed coasts to evoke a strong sense of purpose and rationality. However the protection of the open and largely undeveloped skyline, peaceful backwater character, powerful contrasts with soft organic forms and rich textures of fringing dunes are major restrictions to turbine development. Further limiting factors are the heavy but dispersed patterns of visible vernacular and heritage features and small rural settlements which would make it difficult to site development sufficiently distant so as not to compromise their scale and character. Settlement size and pattern suggest that up to a small group of turbines would generally be appropriate.

Particular sensitivities in relation to the setting of international and national designations include:

- *contribution to tranquil and picturesque compositions with fells in the Lake District NP and fine distinctive vistas to and from them around the southern estuaries*
- *contribution to a sense of remoteness and the sequence of contrasting landscapes in the Solway Coast AONB (as mentioned above)*
- *open sequential views from recreation and tourist routes along the coastal edge of the Solway Coast AONB and Frontiers of the Roman Empire: Hadrian’s Wall across the coastal plain towards the Lakeland fells most notably from Cumbria Coastal Way, the B5300, National Cycle Route 72, Hadrian’s Wall Trail and from viewpoints at coastal forts associated with the Wall*
- *open prospects across the coastal plain from the eastern side of the Arnside and Silverdale AONB, from Farleton Fell back to the AONB and the Limestone Link recreation route between them*

* For those areas that fall within the Solway Coast Area of Outstanding Natural Beauty Policy R45 in the Cumbria and Lake District Joint Structure Plan 2001 – 2016 applies

LANDSCAPE TYPE 5: LOWLAND

Landscape Sub-Types	5a Ridge and Valley 5b Low Farmland	5c Rolling Lowland 5e Drained Mosses
Key Characteristics	Sensitivity	
Landscape Character:		
Scale and Enclosure Medium to large scale landform varying from undulating to rolling to ridge and valley terrain. Enclosure and interruption increasing with degree of relief but long wide views from summits. Field units generally medium to large. Some vegetative enclosure and local scale indicators through presence of occasional valley woodlands, small plantations or shelterbelts, hedges and hedgerow trees but becoming sparser in higher areas and towards coast.	Low/Moderate (2) Small group would not intimidate this rolling landscape and exceptionally a large group might be absorbed on a broader ridge or open flatter area. Undulating fringes and occasional narrow valleys highly sensitive due to intimate scale and potential over dominance in narrow zones of visibility.	
Complexity and Order Fairly simple agricultural patterns dominated by improved pasture with limited features, variation related to grain of topography and exposure. Flatter areas and broad ridge tops - regular pattern of oblong or squarish fields often perpendicular to prevailing wind enclosed by hedges, straight roads, linear settlements along ridge tops, punctuated by farmsteads with associated tree clumps and shelterbelts. Rolling terrain and sheltered valleys – irregular fields, river/streamside woodland and trees, winding roads, more nucleated settlements and remnant mossland (5e, 5b).	Low/Moderate (2) Opportunities for turbine development to relate to strong ridgelines or mirror regular field patterns and create new focal points in sparser areas with strong siting rationale due to abundance of wind. More irregular patterns present fewer opportunities to link or connect turbine development.	
Manmade Influence Intensively managed and heavily settled 'working' countryside. Associated development and land cover patterns generally traditional and rural in character. Some larger modern development features including existing turbines, pylons, masts, major roads and railway, farm sheds and mineral workings and on urban edges industrial buildings, housing estates and golf courses. In West Cumbria legacy of immature and uniform landscapes from open cast coal mining (5a).	Moderate (3) Some potential for positive association with 'working' character and integration with regular manmade field patterns. However likely to appear incongruous against traditional rural development features. Could be less conspicuous near urban edges or where related to key manmade features sharing similar characteristics. May be perceived as further despoliation on restored areas that already have a negative image.	
Skyline Landform generally has horizontal emphasis but relief creates multiple horizons and intermediate ridges frequently broken by trees and woodland. Dissected by numerous valleys. Relatively few vertical structures, pylons sometimes locally dominant but otherwise occasional silos, existing turbines, chimneys or industrial buildings on urban edges, and transmission masts on neighbouring coast or high ground.	Moderate/High (4) Variable and unpredictable relationship with skyline and partial visibility likely to result in confused image. Valleys rims vulnerable to disturbing effects of partial views and blade flash. Limited opportunity to correspond to other vertical structures. Scope for confusion of form and function in proximity to pylons.	
Connections and Adjacent Landscapes Strong relationships with neighbouring high ground especially where the transition is sudden eg North Pennines (13), Sandale, High Park escarpments (12). These create a large scale context and significant backdrop in terms of views out of type 5 as well as prospects of it. Neighbouring coastal landscapes have similar although more localised effects. Type 5 also contributes to the setting of important valleys eg Eden and Derwent, towns within them eg Workington, Solway Coast AONB (2) and LDNP.	Moderate/High (4) Whilst large scale contexts of adjacent landscapes may assist in absorption of turbine development potential for intrusion in open prospects from high ground and coast, often of national importance, are increased. Also potential for localised intrusion on townscape settings and valley rims.	
Remoteness and Tranquillity Busy well populated working countryside especially around main settlements and transport corridors radiating out from Carlisle. However much quieter hinterland perceived as a rural backwater and pockets of remoteness/tranquillity around relic mosslands.	Moderate (3) Noise and movement of turbines could relate to busier areas but would be less suited to more peaceful parts.	
Visual:		
Visual Interruption Generally interrupted by relief, woodlands, hedges and buildings.	Low/Moderate (2) Turbine development likely to be more easily absorbed in wider landscape due to presence of interruptions resulting in glimpsed or intermittent views.	
Settlement and Key Views Heavily settled lowland crossed by major transport corridors into West Cumbria notably the A66, A69 A595. Numerous small market towns, villages, hamlets and isolated properties in a dispersed pattern right across type 5, linked by minor roads and lanes. Also crossed by Hadrian's Wall Trail, NCR 72 and C2C cycle route.	High (5) Limited scope to site development away from settled areas. Size of development constrained by small scale nature of existing settlements, with potential for over dominance.	
Overall Sensitivity	Moderate	

LANDSCAPE TYPE 5: LOWLAND

Value	
Landscape Designations and Planning Policies	Scale it Matters and Why
Frontiers of the Roman Empire: Hadrian's Wall World Heritage Site and Setting Carlisle to Newtown nr Brampton S part of 5b (site and setting) and seaward parts of 5a/b between Maryport and Silloth (setting)	International: Protection of core archaeological features of the Roman wall and coastal defences as well as their landscape setting
Solway Coast AONB Covers small parts of 5b	National: Conservation and enhancement of natural beauty attributable to: wild and remote qualities due to absence of large scale industrialisation, main roads and railways; rich presence of birdlife and expansive area of salt-marshes; distinctive contrasting sequence of coastal margins/ farmland and mossland; open and attractive views to Scottish coast and Lakeland fells; small distinctive villages.
Registered Historic Parks and Gardens Workington Hall (5a)	National: Protection of special historic interest of parks and gardens and their settings
Ancient Woodland Sparse concentrations alongside the Rivers Lyne (5b) and Petheril (5b) nr Carlisle, gill woodlands in Allerdale below Sandale escarpment and sides of Broughton Moor (5a) and Greenscoe Valley Barrow (5c)	National/Regional: Conservation of ancient semi-natural woodlands as irreplaceable nature conservation assets with associated interests including characteristic landscapes
Rarity	Area of County
5a Ridge and Valley 5b Low Farmland 5c Rolling Lowland 5e Drained Mosses	6.8%: common 9.3%: common 2.1%: unusual 0.4%: rare
Conservation Interests and Associations	Description
Historic Environment Varied interest Conservation Areas: Numerous small towns and villages across Solway Basin (5a/b), Settle Carlisle Railway and handful of small towns/villages E of Carlisle around Eden Valley (5b/c). Elsewhere only occasional villages including Greysouthen and Beckermeth W Cumbria (5b/c), Longtown in Borders (5b) and Lindal-in-Furness (5c).	Evidence of Roman occupation prolific in places. Traditional field systems round settlements/fossilised strips of medieval origin (5a, 5c). Remains of former industries-iron/coal workings, quarrying (5a). Land improvement and mineral exploitation by Cistercian monks (5b). To north medieval fortified sites associated with Anglo-Scottish border (5b). Ancient hedgerows, red sandstone buildings, some stately homes and parks (5c). North of Carlisle regular field patterns characteristic of late enclosure (5b).
Ecology Largely an agricultural landscape with isolated areas of semi-natural vegetation Occasional small SSSIs, RIGGS and NNRs	Upland oak woodland (5a, 5b) Lowland raised bog (5b,5e) Rush pasture /purple moor-grass (5a, 5b, 5e) Rivers and streams (5a, 5b,5c) Species rich hedgerows and basin mire (5c)
Cultural Limited interest	Charles Dickens/Wilkie Collins 'The Lazy Tour of Idle Apprentices' (journey from Carrode Fell to Allonby) Wigton area settings for novels by Melvyn Bragg

LANDSCAPE TYPE 5: LOWLAND

Capacity Statement

Overall the Lowland landscape type is judged to have **moderate** capacity to accommodate turbine development. This reflects moderate sensitivity overall and moderate value as a largely undesignated landscape. A significant exception is the small area of lowland that falls within the Solway Coast AONB designation*. Here high value and sensitivity attributable to a sense of remoteness, lack of large scale development and contribution as a backdrop and contrast to wilder coastal edge landscapes indicate that any scale of wind energy development is likely to be inappropriate. Whilst this type has moderately strong historical interest this is attributable to the presence of conservation areas, Roman remains, medieval field patterns, historic parks etc. It is considered that wind energy development could be accommodated provided it does not impinge on the site or setting of these valued features and therefore this value should not reduce capacity in the landscape as a whole. Elsewhere some notable localised geographical variations in the sense of enclosure created by the undulating and rolling topography and regularity of land cover patterns affect appropriateness.

Greatest potential occurs in the open flatter areas and broad ridge tops where small or, in exceptional circumstances, large turbine groups could relate to the medium to large scale landform without dominating wide views and integrate with regular field patterns. The sense of exposure in these areas would also evoke a sense of purpose and rationality. In the more sheltered and enclosed valleys or undulating fringes turbine development would feel over dominant and conflict with more irregular land cover patterns.

Whilst significant interruption by relief and vegetation would assist absorption in the wider landscape these same features are likely to result in unpredictable relationships between turbines and a variable skyline with intensifying or disturbing effects such framing or blade flash over valley rims. A key characteristic limiting capacity is the dispersed pattern of numerous small rural settlements making it difficult to site developments sufficiently distant so as not to adversely affect their sense of scale and character. Settlement size and pattern suggest that up to a small group of turbines would generally be appropriate. Other more localised sensitivities include potential erosion of peaceful rural backwater qualities and impact on valued views from neighbouring high ground or coast, important valleys and towns such as Workington within them.

Particular sensitivities in relation to the setting of international and national designations include:

- *contribution of the quieter hinterlands to a sense of remoteness and the sequence of contrasting landscapes in the Solway Coast AONB*
- *open sequential views from recreation and tourist routes along the coastal edge of the AONB and along Frontiers of the Roman Empire: Hadrian's Wall across the lowland ridges towards Lakeland fells most notably from Cumbria Coastal Way, the B5300, National Cycle Route 72, Hadrian's Wall Trail and from viewpoints at forts and milecastles associated with the Wall*
- *distinctive vistas to and from the northern and western fells of the Lake District NP and open estuarine views from the Ravenglass and Eskdale 'gateway'*
- *vistas of the north-western tip of the North Pennines AONB*

* For those areas that fall within the Solway Coast Area of Outstanding Natural Beauty Policy R45 in the Cumbria and Lake District Joint Structure Plan 2001 – 2016 applies

LANDSCAPE TYPE 6: INTERMEDIATE LAND

Landscape Sub-Types	6a Intermediate Land
Key Characteristics	Sensitivity
Landscape Character:	
<p>Scale and Enclosure Mainly broad scale open landscape of gentle ridges and wide valleys. Terrain varies from rolling highland with wide views and few hedges to undulating land enclosed by hedges and walls. Borders area dissected by deeply incised well wooded valleys and Vale of Eden features narrow gill like valleys and some more enclosed landscapes associated with villages in protected locations. Fabric defined by walls and hedges, plantation blocks, valley woodlands with details of hedgerow trees, walls, stone buildings.</p>	<p>Low/Moderate (2) Small to large turbine groups would not intimidate broad ridges of more open higher ground provided they relate to scale of fields and woodland blocks. Undulating enclosed land and incised valleys more sensitive due to more intimate scale and potential for over dominance in narrow zones of visibility. Turbines likely to appear over dominant in context of minor valleys or gills, and in close range against features such as hedgerow trees, small gill woods and traditional stone buildings.</p>
<p>Complexity and Order Mostly fairly simple with a few strong features but generally balanced. Predominantly improved pasture bounded by hedges often with trees or sometimes stonewalls. Field size variable medium to large breaking down into smaller strip fields close to settlements. Plantations and semi-natural valley woodlands often important elements. Inglewood Forest has distinct simple well regulated estate pattern of rectilinear fields, straight roads, and shelterbelts divided by M6 motorway/ mainline railway corridor. More variety and irregular patterns of woods and rush pasture around narrow valleys and gills</p>	<p>Moderate (3) Opportunities for ordered turbine groupings to mirror rectilinear patterns of larger fields, plantation blocks and straight roads particularly in Inglewood Forest area. Patterning in other areas indistinct offering less scope for visual linkage. In higher rolling areas simple lines of evenly spaced turbines along contour lines could complement grain of gentle ridges. Irregular patterns of narrow valleys and remnant strip fields round settlements highly sensitive.</p>
<p>Manmade Influence Managed 'working' countryside with a number of visible historical elements such as planned villages of medieval origin surrounded by remnant open common and strip fields, prehistoric and medieval earthworks and Roman remains, late enclosure patterns of Inglewood. Largely unaffected by modern development pressures apart from M6/rail corridor which attracts commercial developments and increasing numbers of large farm buildings.</p>	<p>Moderate/High (4) Some potential for positive association with 'working' farmland character and integration with regular late enclosure patterns. Likely to appear incongruous in context of more irregular heritage patterns, stone structures and earthwork features. May be perceived as compromising generally unspoilt rural character.</p>
<p>Skyline Wide views across valleys to broad horizons often textured and tiered by woodland bands and intermediate ridges. Occasional vertical manmade structures include pylons and Skelton radio mast complex. Some narrow and incised valleys with distinct rims.</p>	<p>Moderate (3) Opportunity for linear turbine groupings to integrate with broad banding of tiered horizons and predictable relationship in context of broad open valleys. Scope for confusion of form and function in proximity to pylons and radio masts. Some valley rims vulnerable to disturbing partial views.</p>
<p>Connections and Adjacent Landscapes Relationship with neighbouring high ground especially where transition sudden as east side Vale of Eden with North Pennines AONB escarpment and to lesser extent Inglewood with Caldbeck Fells of LDNP and Lazonby sandstone ridge (10) and Borders with Bewcastle Fells (9). These create large scale backdrops to parts of Type 6 as well as prospects of it. Also contributes to setting of Eden Valley and in Borders Irthing Valley with Frontiers of the Roman Empire: Hadrian's Wall along its northern rim.</p>	<p>Moderate/High (4) Whilst large scale backdrops may assist in absorption of turbine development potential for intrusion in open prospects from high ground, often of national importance, are increased. Imposing views of dramatic North Pennine scarp from Vale of Eden vulnerable. Also potential for intrusion on neighbouring major valley rims and setting of internationally important Hadrian's Wall.</p>
<p>Remoteness and Tranquillity Rural mostly settled landscape which feels balanced and calm. Busier around M6/rail corridor, A and B roads. Borders area is more sparsely inhabited and has a feeling of remoteness.</p>	<p>Moderate (3) Noise and movement of turbine development maybe appropriate adjacent to through routes. Elsewhere turbines, especially larger groupings, likely to reduce sense of calmness and remoteness.</p>
Visual:	
<p>Visual Interruption Rolling farmland significantly interrupted by woods, plantations, hedges and hedgerow trees, walls, villages and undulations.</p>	<p>Moderate (3) Although there are wide views across broad valleys variety of screening features likely to assist absorption and create glimpsed or intermittent views.</p>
<p>Settlement and Key Views Fairly heavy but dispersed pattern of small settlements crossed by major through routes. Planned villages with greens and sandstone buildings frequent around Penrith, within Vale of Eden and marking foot of North Pennines. Variable form responding to shape of river or beck side settings. String of linear villages along A6 (former Roman Road) through to Carlisle. Elsewhere pattern of small hamlets and isolated properties and farms across Inglewood Forest and Borders although sparser away from Lyne valleys. Hadrian's Wall Trail close to southern boundary of Borders area. Settle/Carlisle railway and Eden Valley Cycle Route offer extensive vantage over Vale of Eden to dramatic N Pennine scarp. C2C also crosses this area and Inglewood area.</p>	<p>Moderate/High (4) Limited scope to site development away from settled areas. Size of development constrained by small scale nature of historic and distinctive planned villages with potential for over dominance. Sparser parts with isolated properties present fewer problems.</p>
Overall Sensitivity	Moderate

LANDSCAPE TYPE 6: INTERMEDIATE LAND

Value	
Landscape Designations and Planning Policies	Scale it Matters and Why
Frontiers of the Roman Empire: Hadrian's Wall World Heritage Site and Setting Southern fringe of Borders area (setting)	International: Protection of core archaeological features of the Roman wall and coastal defences as well as their landscape setting
North Pennines AONB Small areas on fringes	National: Conservation and enhancement of natural beauty derived from the special qualities of: a unique landscape unit with a distinctive geology and unusually large extent of high, exposed semi-natural moorland which has outstanding wilderness qualities; scenic contrasts and unfolding sequence of simple moorland, sheltered dales and dramatic scarp as well as spectacular individual features; moorland landscapes valued for their long views and western scarp affords panoramic views; special interests of historic mining landscape, unique flora and fauna, unusual range of geological and geomorphological features and wealth of archaeological and historical remains which contribute to landscape character.
Registered Historic Parks and Gardens Hutton-in-the-Forest	National: Protection of special historic interest of parks and gardens and their settings
Ancient Woodland Numerous along R Lyne and its tributaries in Borders and concentration in NW corner of Inglewood Forest area	National/Regional: Conservation of ancient semi-natural woodlands as irreplaceable nature conservation assets with associated interests including characteristic landscapes
Rarity	Area of County
6a Intermediate Land	9.4%: common
Conservation Interests and Associations	Description
Historic Environment Rich and diverse Conservation Areas: Settle/Carlisle Railway Several villages at foot of N Pennines and Vale of Eden	Characterised by planned villages probably originating from 12 th century, with greens, large churches, sandstone buildings, traditional farm buildings within them and surrounded by former open common fields (and remnant medieval strip fields). Prehistoric and medieval earthworks and Roman remains eg roads, camps, forts (A6 between Penrith and Carlisle). Inglewood Forest distinct from much of rest, in part of Barony of Greystoke created in 1120 and in Norman times former Royal Forest hunting ground only enclosed in late 19 th century hence rectilinear fields and straight roads and characterised by post medieval squatter settlements.
Ecology Wide range of localised ecological interest Designations limited to main rivers and becks generally SSSIs sometimes SACs Few small pocket SSSIs over woods, pastures or moss some also SACs	Improved pasture with species-rich hedgerows, occasional areas of rush pasture and purple moor grass. Couple of mire basins and occasional species rich road verges near Penrith. Small woodlands in Eden valley and more extensive ones in White and Black Lyne valleys of Borders area with range of upland oak and wet woodland communities.
Cultural	Vale of Eden supposed links to legends of King Arthur eg name 'Lyvenett' possible connection with 'last King of the kingdom of Rheged who lived at Llwyfenwydd.

LANDSCAPE TYPE 6: INTERMEDIATE LAND

Capacity Statement

Overall the Intermediate Land is judged to have **moderate** capacity to accommodate small to large turbine groups. This reflects moderate sensitivity overall and moderate value as a largely undesignated landscape. Whilst this type has moderately strong historical interest this is attributable to the presence of conservation areas, medieval villages and field patterns, Roman remains etc. It is considered that wind energy development could be accommodated provided it does not impinge on the site or setting of these valued features and therefore this value should not reduce capacity in the landscape as a whole. Notable localised geographical variations in character and higher landscape values within and close to international and national designations affect appropriateness.

Greatest potential occurs across the broad valleys and gently rolling areas benefiting from visual interruption by tree cover and ridges. Here small – large groups of turbines could relate well to the medium to large scale of landform, fields or woodland without over dominating wide views. Ordered groupings would integrate well with rectilinear field patterns and plantation blocks, particularly in the Inglewood Forest area. Elsewhere simple lines of turbine could flow with the grain of topography and highlight intermediate ridgelines.

A key characteristic limiting capacity is the rich and diverse historic environment and general absence of large modern development structures. Across the Vale of Eden any type of turbine development would compromise the distinctive pattern of planned villages and surrounding fields of medieval origin. Elsewhere the widespread occurrence of prehistoric or medieval earthworks and Roman remains present problems.

Other limiting factors include the dispersed pattern of small settlements making it difficult to site development sufficiently distant without affecting their sense of scale and character, conflicts with a sense of remoteness in the Borders area, potential for over dominance and incongruity with the detailed natural variety of gills and incised valleys, visual intrusion on neighbouring upland prospects and major valleys such as the Irthing and Eden. Settlement size and pattern suggest that up to a small group of turbines would generally be appropriate.

The close interrelationship and dramatic contrast between the North Pennines AONB scarp and the Vale of Eden indicate that any scale of turbine development would be difficult to accommodate in this area. A small area of Type 6 clips the edge of the AONB* encompassing a string of vulnerable historic sandstone villages along the foot of the western scarp.

The setting of the AONB is also vulnerable in terms of views in and out including:

- *inspiring views over the Vale towards the Lakeland fells provided from the western scarp most notably from the A686 pass, Hartside Cross viewpoint, the Maiden Way and the Coast2Coast (C2C) Cycle Route (NCR 7) and further south from the Pennine Way around High Cup*
- *views from below where the scarp forms an imposing wall above the Vale visible from the A66, A686, Settle Carlisle Railway and C2C and Eden Valley Cycle Routes (NCR 7 and 68)*

Particular sensitivities in relation to the setting of other national and international designations include:

- *sequential views of the southern fringe of the Borders area from Hadrian's Wall Trail and Cycle Route (part of NCR 72) and from viewpoints at the turrets, forts, milecastles and camps between Castlesteads and Birdoswald*
- *sequential views towards Frontiers of the Roman Empire: Hadrian's Wall from the south with the Borders area behind from the Pennine Way as it descends into the Irthing Valley and from the A69*
- *views to and from the Caldbeck Fells on the north-eastern fringe of the Lake District National Park and views from the C2C Cycle Route (NCR71) 'gateway' into the Park near Greystoke*

* For those areas that fall within the North Pennines Area of Outstanding Natural Beauty Policy R45 in the Cumbria and Lake District Joint Structure Plan 2001 – 2016 applies

LANDSCAPE TYPE 8: MAIN VALLEYS

Landscape Sub-Types	8a Gorges 8b Broad Valleys	8c Valley Corridors 8d Dales
Key Characteristics	Sensitivity	
Landscape Character:		
<p>Scale and Enclosure Variable depending on height and location. Range from intimate tightly enclosed gorges(8a) with views channelled along valley through to broad and open large scale valleys with extensive views but narrow and winding in parts (8b,c,d). Variety of scale indicators including small woods, ghylls, scrub, hedges, stone walls, plantations, individual trees and buildings. Broader valleys feature large scale infrastructure.</p>	<p>High / Moderate (4) Gorges and narrower valleys highly sensitive due to intimate scale and/or potential for over dominance in narrow zones of visibility. Broadest valleys maybe able to accommodate small or large groups on flatter floodplains or valley sides related to larger fields and plantations. Turbines often likely to appear awkward and out of scale against wide variety of small scale features. No obvious functional rationale in shelter of valleys.</p>	
<p>Complexity and Order Generally harmonious but variable in character. In gorges (8a) and narrower parts of other valleys semi-natural hanging woodlands featuring rocky outcrops and cliffs and fast flowing rivers create scenic compositions. Lower valleys (8b,c) have soft managed character derived from mixed pattern of improved pasture, small woods/plantations, parkland, hedges, frequent trees in hedges, by roads and meandering rivers. Harmony sometimes disrupted by infrastructure. Dales (8d) and Lune Gorge (8c) higher with wilder more rugged character derived from rough pasture, barns, ghylls, waterfalls, rocky scarps on valley sides and strong pattern of stone walls.</p>	<p>High (5) Scenic harmony vulnerable to disruption. Would be difficult to relate turbine groupings to variety of irregular landforms shapes, meandering rivers and complex patterns of natural and historic features. Arrangements aligning the course of meandering rivers unlikely to read clearly.</p>	
<p>Manmade Influence Varies from largely natural landscape of Eden Gorge (8a) to semi-natural historic landscape of dales (8d) to rural mixed character of broad valleys (8b) to urbanised corridors containing frequent man-made structures such as roads, motorways, railways, pylons and scattered development (8c). Common pressures include afforestation and recreation. Heritage features widely visible including Roman remains; medieval castles/abbeys; early mining; 18th century industrial sites related to waterpower; parkland and historic houses.</p>	<p>Moderate/High (4) Variable but turbines likely to be most incongruous in gorges and dales. Elsewhere may be limited scope for positive association with intensively farmed areas in lower valleys and integration with occasional geometric field and plantation patterns or large scale infrastructure. However conflict with character and scale of historic features difficult to avoid and turbines likely to exacerbate visual confusion in more urbanised parts.</p>	
<p>Skyline Broad sometimes distant horizons in wider valleys interrupted by woods. Narrow valleys or gorges have more immediate dominant skylines that can be textured or stark. Intermediate horizons frequently created by valley bottom undulations or stepped valley sides. Vertical features scarce apart from historic castles, mansions or abbeys and occasional pylons. Cliffs and angular limestone scarps create landmarks.</p>	<p>Moderate/High (4) Turbines likely to dominate and interrupt distinctive rims and intermediate horizons of narrower valleys and feel over bearing. Wider more distant horizons of broadest valleys less vulnerable but development likely to have confused image due to unpredictable relationship with skyline and partial visibility. Turbines may also compromise or compete with natural landmark skylines and historic punctuations.</p>	
<p>Connections and Adjacent Landscapes Sometimes dramatic backcloths of adjacent limestone escarpments (3, 12), sandstone ridge (10) and fells or moors including Howgills and N. Pennines (13) with strong inter-visibility. Elsewhere views into adjacent lower farmland and hills restricted by ridge marking edge of valley. However valley rims can still feature strongly in views from surrounding ridge tops and larger valley towns (U).</p>	<p>Moderate (3) Whilst large scale backdrops of fells, moors and scarps may assist absorption potential for intrusion in open prospects across valleys and within wider compositions or dramatic contrasts with neighbouring high ground, sometimes of national or international importance. Elsewhere valley rim development could sometimes compromise townscape settings eg Workington or local vantage points.</p>	
<p>Remoteness and Tranquillity Lower valleys (8b,c) generally calm with little movement except where main roads present. Kent valley seen as busier. Beyond key villages Eden gorge and dales (8a,d) have a quieter sometimes remote character.</p>	<p>Moderate (3) Noise and movement of turbine development maybe appropriate adjacent to main roads. Elsewhere turbines, especially larger groupings, likely to reduce sense of calmness and remoteness.</p>	
Visual:		
<p>Visual Interruption Views often frustrated by variety of features including undulations, woods, scrub, hedges, walls, plantations and individual trees.</p>	<p>Moderate (3) Generally absorption in wider landscape would be assisted by presence of frequent interruptions</p>	
<p>Settlement and Key Views Lower valleys have heavy but dispersed pattern of settlements ranging from isolated farmsteads to small market towns often with historic stone built core but affected by urban expansion and accommodating major transport routes (8b,c). In Eden gorge and North Pennines concentrated into a few large villages with an industrial past (8a/8d). In southern dales settlement generally absent. Tourist facilities include riverside walks, historic sites and parks and trails along the valleys: Hadrian's Wall Trail (Irthing); Pennine Way (South Tyne), Settle to Carlisle railway (Eden); Eden Valley Cycle Route. Some valleys are crossed by the Pennine Bridleway and C2C and W2W Cycle Routes.</p>	<p>High (5) Limited scope to site development away from settled areas in lower main valleys. Size of development constrained by small scale nature of existing settlements with potential for over dominance especially where views restricted in narrower valleys. Widespread potential for intrusion on important landscape settings and sequential views.</p>	
Overall Sensitivity	Moderate/High	

LANDSCAPE TYPE 8: MAIN VALLEYS

Value	
Landscape Designations and Planning Policies	Scale it Matters and Why
Frontiers of the Roman Empire: Hadrian's Wall World Heritage Site and Setting 8b Irthing Valley (site and setting)	International: Protection of core archaeological features of the Roman wall and coastal defences as well as their landscape setting
North Pennines AONB North Pennine dales (8d)	National: National: Conservation and enhancement of natural beauty derived from the special qualities of: a unique landscape unit with a distinctive geology and unusually large extent of high, exposed semi-natural moorland which has outstanding wilderness qualities; scenic contrasts and unfolding sequence of simple moorland, sheltered dales and dramatic scarp as well as spectacular individual features; moorland landscapes valued for their long views and western scarp affords panoramic views; special interests of historic mining landscape, unique flora and fauna, unusual range of geological and geomorphological features and wealth of archaeological and historical remains which contribute to landscape character.
Landscape of County Importance All outside AONB except Derwent and Barrow (8c)	County: Protection of distinctive character attributable to distinctive landform; variety of natural and cultural features; absence of detractors and in parts mixed land cover patterns; views and peaceful quality creating a strong positive response.
Registered Historic Parks and Gardens Workington Hall, Corby Castle, Appleby Castle and Levens Hall	National: Protection of special historic interest of parks and gardens and their settings
Ancient Woodland Numerous in Irthing Valley (8b) and Eden Gorge (8a)	National/Regional: Conservation of ancient semi-natural woodlands as irreplaceable nature conservation assets with associated interests including characteristic landscapes
Rarity	Area of County
8a Gorges 8b Broad Valleys 8c Valley Corridors 8d Dales	0.2%: unique 5.1%: ordinary 0.6%: rare 1.1%: unusual
Conservation Interests and Associations	Description
Historic Environment Rich and diverse interest sometimes exceptional Conservation Areas: Settle/Carlisle Railway and several villages and towns along Eden Valley. Ravenstonedale and Kirkby Lonsdale in Lune Valley. Alston and Garrigill in N Pennine dales. Heversham in Kent Valley and Furness Abbey, Barrow.	Varying building styles with sandstone in north / limestone in south. Water powered 18 th and 19 th century industrial sites on Kent and Eden Gorge, corn mills on others. Historic weirs and bridges. Roman sites and route ways particularly on Eden and Lune, Frontiers of the Roman Empire: Hadrian's Wall and forts in Irthing Valley. Medieval defensible structures eg Pendragon Castle, Mallerstang (8d) and abbeys/priories eg Furness (8c). Ornamental landscape /parks and historic houses especially in S. Lune; Kent (8b) and Eden Gorge (8a). Historic field pattern defined by drystone walls in dales (8d) featuring ring garths intakes and field barns. Rich coal quarrying and lead mining heritage and associated villages in N. Pennines (8d).
Cultural Scenic qualities often inspirational	Popular location for artists/writers/sculptors eg Ruskin, JMW Turner, Norman Adams, David Morris and Andy Goldworthy. Settle to Carlisle railway in parts runs along the Eden Valley and is regarded as most scenic railway in England.
Ecology Rich and diverse interest sometimes exceptional Designations generally limited to rivers themselves. Most rivers extensively covered by SSSI and sometimes SACs, except Lune and Esk. Gorges and rocky sections often covered by RIGGS,	Central interest in rivers eg otter; Atlantic salmon; lampreys; crayfish; bats; birdlife and shingle banks giving rise to national and international designations. Upland oak woodland also of high interest especially ancient woods in Eden Gorge where damp cliffs also support diverse assemblage of mosses etc. (8a). Wet woodland also important in other valleys together with rush pasture. Further interest in small remnants of lowland raised bog and grazing marsh in lower valleys (8b, c); species rich roadside verges and hedgerows. Dales (8d) also feature hay meadows and black grouse habitat in North Pennines.

LANDSCAPE TYPE 8: MAIN VALLEYS

Capacity Statement

Overall the Main Valleys landscape is judged to have **low/moderate** capacity to accommodate turbine development. Potential is limited by the overall moderate/high sensitivity of the valleys landscape character and because of their moderate/high or high landscape value recognised by LoCI and North Pennines AONB designation*, and strong historic and ecological interests and cultural associations.

Any type of turbine development is likely to disrupt the scenic richness and harmony for which the valleys are valued. Character varies according to height, degree of enclosure and urban influence but all valleys exhibit a variety of natural and historic features and complex irregular land cover patterns and this limits opportunity for integration of turbines. Potential for visual intrusion and dominance is also a major issue due to the pattern of frequent small scale settlements and concentration of route ways and tourist facilities in the valleys. Dominance is likely to be exacerbated by the tightly enclosed character of many valley landforms where the zone of visibility is restricted and potential for turbines sited on exposed upper valley slopes to feel overbearing.

Whilst the intimate character of narrower valleys would be threatened by turbines there may be limited scope for groups of turbines in broader valleys with sufficient wind resource such as in the uplands or near the coast. Generally up to a small group would be appropriate but exceptionally a large group might be accommodated where unconstrained by small scale settlement. However they would still be likely to appear out of scale against the wide variety of small features typically found in this landscape type. Other issues include the absence of comparable vertical structures; intrusion and blade flash over distinctive valley rims; vulnerability of historic monument and townscape settings and landmark skylines of adjacent fells, limestone escarpments and sandstone ridges.

Within the North Pennine dales recognised qualities of enclosure, diversity, intricacy and sense of history, with a wealth of traditional built features and the scattered remains of lead mining activity, are vulnerable in terms of overall harmony, dominance, scale and character. Potential intrusion on sequential views from the Pennine Way which passes along South Tynedale, the setting of Alston and connecting A roads is a further issue. The dales also make a vital contribution to the wider identity of the North Pennines through contrast with adjacent moors, amplifying their sense simplicity, extent and wildness. These sensitivities indicate that any scale of wind energy development is likely to be inappropriate within the AONB.

Particular sensitivities in relation to the setting of international and national designations include:

- *key views across and from the Irthing Valley in relation to both Frontiers of the Roman Empire: Hadrian's Wall and the northern edge of the North Pennines AONB most notably from Hadrian's Wall Trail and Cycle Route (NCR 72) and from viewpoints at the turrets, forts, milecastles and camps between Castlesteads and Birdoswald, the Pennine Way as it descends into the valley and the A69*
- *contribution of the Eden Valley to panoramic views towards the Lakeland Fells across the Vale of Eden from the western scarp of the North Pennines AONB*
- *the Mallerstang (Eden Valley) 'gateway' into the Yorkshire Dales NP featuring the Settle Carlisle Railway and National Cycle Route 68*
- *contrast between the enclosed and diverse Tebay Gorge and the Lune Valley landscapes with the open and sleek Howgill Fells on the western side of the Yorkshire Dales NP as viewed from the M6, W2W Cycle Route (NCR68) and A683/4 Sedbergh 'gateway'*
- *contribution of the lower Kent and Lyth Valleys to picturesque estuarine compositions between the limestone escarpments of the south-eastern Lake District NP and the Arnside/Silverdale AONB and dramatic contrast at the Gilpin Bridge 'gateway' between flat drained mosslands and imposing limestone scars as viewed from the A590, A5074, and the W2W Cycle Route (NCR 72) and National Cycle Route 6*

* For those areas that fall within the North Pennines Area of Outstanding Natural Beauty Policy R45 in the Cumbria and Lake District Joint Structure Plan 2001 – 2016 applies

LANDSCAPE TYPE 9i: INTERMEDIATE MOORLAND

Landscape Sub-Types	9a Open Moorlands (Bewcastle Fells) 9c Forests (Kershope and Spadeadam) 9d Ridges (Furness)
Key Characteristics	Sensitivity
Landscape Character:	
Scale and Enclosure Mainly large scale moorland but varies to vast (9c). Landform of rolling or undulating high plateaus with dissecting small valleys, steep sides and lower undulating fringe (9a,c). Varies to broad ridge dividing into individual hills or moors with rounded tops and steep sides (9d). Generally open and exposed with wide views. Can be locally enclosed within valleys or extremely enclosed within extensive forest cover (9c). Generally unfenced moorland or divided into large fields or lots. Limited scale indicators include isolated buildings, peripheral villages, field boundaries, pylons and trees.	Low (1) High plateaus might accommodate medium to large wind farms whilst undulating fringe suggests scope for large group development (9a,c). Higher moors on the broad ridge might accommodate small wind farms whilst small groups would be more appropriate to individual scale of hills and villages at lower levels (9d). In close range turbines may appear incongruous and out of scale against detailed features of relief and land cover on lower slopes. Upland exposure presents a strong design rationale.
Complexity and Order Simple moorland plateau forms of rounded moors or hills. Ridge has distinctive NE-SW grain (9d). Core areas at higher elevation retain an untamed character created by rough grassland with areas of rush, heath or bog. Land unenclosed or in large lots or fields. Underlying detail and relief blanketed by coniferous forest in 9c. Firebreaks, cycles of felling and replanting create discordant patterns. Irregular field pattern of semi-improved pasture enclosed by ragged hedges or fences on lower fringe (9a). Improved pasture enclosed by stone walls on lower part of ridge (9d). Features scarce/decreasing with altitude including stone walls, crags (9a, d), woods in valleys or small belts and reservoirs (9d).	Low/Moderate (2) Opportunities for organic configurations in response to particular form of individual hills, moors or grain of overall ridge (9d). Simple moorland canvas presents scope for a sculptural image illuminating emptiness of this landscape (9a,c) or acting as a counterpoint to reservoirs (9d). Potential for turbines to exacerbate discordant forest patterns (9c) and limited scope for visual linkage with more irregular field patterns on lower undulating fringes (9a).
Manmade Influence Commercial forestry dominant manmade influence (9a,d). Large scale development absent in 9a, localised presence elsewhere: quarries, reservoirs, masts, wind turbines (9d) and military development (9c, Spadeadam). Isolated historic features eg Bewcastle Roman fort, prehistoric earthworks and villages (9d). General trend towards more managed character in late 20 th century through degradation or loss of rough moorland due to overgrazing, drainage and conversion to improved pasture or commercial forestry.	Low/Moderate (2) Turbine development has potential to erode integrity of untamed and featureless character of core moorland areas. However a well designed isolated group could be perceived as a complementary contrast. Potential for positive association with working character of intensively farmed or afforested areas and large scale engineered aspects such as reservoirs and quarries. Likely to appear incongruous in context of historic features.
Skyline Simple reposeful skylines in parts lacking strong foci or drama (9a,c). Forest can mask hills, crags and dissecting valleys (9c). Occasional features such as crags, isolated woods and buildings can stand out. Some parts feature manmade verticals eg masts, poles, pylons and existing turbines (9c Spadeadam and 9d).	Low/Moderate (2) Opportunity for isolated turbine groupings to create a new focal point in clear visual contrast to simple moorland or forested skylines although maintenance of a predominantly uncluttered skyline and confusion with other manmade verticals (9d) are issues. Also potential for competition with historical or natural punctuations such as crags.
Connections and Adjacent Landscapes Gradual transition into lower farmland (6,5) for Bewcastle area (9a,c). Southern edges (9a,c Spadeadam) views from Hadrian's Wall and associated trail and cycleway NCR 72. Ridge (9d) has sharp elevational contrast with adjacent coastal landscapes (1,2) important to open and scenic estuarine vistas with Lakeland fells. But close range views often restricted by shoulders of ridge. Some inter-visibility with adjacent Furness Fells and visitor routes.	Low/Moderate (2) Transitional character likely to assist absorption and broad ridge offers scope to site development at a distance from sensitive estuarine views. Potential for localised intrusion on setting of Hadrian's Wall (9a,d), fells of national value (9d) and visitor route ways.
Remoteness and Tranquillity Feeling of remoteness and space derived from wide horizons and absence of settlement on high plateaus and ridge tops. Lightly settled lower areas retain a peaceful backwater character. Localised noise and movement from existing turbines, quarries, main routes on edges (9d) and military uses (9c Spadeadam).	High (5) Noise and movement of turbines likely to compromise sense of remoteness and peace.
Visual:	
Visual Interruption Varies from open moorland and ridges (9a,d) to forested moorland with significant visual containment but also some prominent underlying hills and open edges (9c). Significant containment between hills and towards centre of high plateaus or ridge.	Moderate (3) Turbine development on edge of high plateaus and ridge likely to stand out and be widely visible. Higher degree of visual containment towards centre of plateaus or ridge, between hills and within forested areas likely to assist absorption.
Settlement and Key Views Absent across much of high moorland plateaus, forested areas and ridge tops. Sparse settlement of isolated farmsteads, houses and occasional hamlets/small villages occurs in valleys or along spring lines at foot of scarps.	Low/Moderate (2) High moorland plateaus, forested areas and ridge tops offer scope to site development well away from settlements. Localised potential to be over bearing and intrusive in relation to settlement around edges.
Overall Sensitivity	Low/Moderate

LANDSCAPE TYPE 9i: INTERMEDIATE MOORLAND

Value	
Landscape Designations and Planning Policies	Scale it Matters and Why
Frontiers of the Roman Empire: Hadrian's Wall World Heritage Site and Setting Southern fringe of 9c Spadeadam (setting)	International: Protection of core archaeological features of the Roman wall and coastal defences as well as their landscape setting
Landscape of County Importance All except 9c	County: Protection of distinctive character attributable to absence of detractors, natural moorland land cover, views and natural or built features of interest, striking views (9d) creating a strong positive response.
Ancient Woodland Generally sparse. Few scattered remnants on plateau sides in (9a), Several around Gilgarran gill and small block woodlands on side of moors (9d)	National/Regional: Conservation of ancient semi-natural woodlands as irreplaceable nature conservation assets with associated interests including characteristic landscapes
Rarity	Area of County
9a Open Moorlands 9c Forests 9d Ridges	1.8%: unusual 3.6%: ordinary 1.1%: unusual
Conservation Interests and Associations	Description
Historic Environment Localised interest Conservation Areas: Ireleth in Furness (9d)	Dispersed settlement pattern and enclosure of higher areas post-medieval in origin. Nucleated settlement on lower edges of ridge (9d) earlier in origin. Earthworks including prehistoric settlements and burial cairns and medieval shielings (9a). Number of farms originated as fortified castles in 16/17 th century (9c). Roman roads and fort (9a). 20 th century heritage includes Blue Streak missile/satellite launcher testing Spadeadam (9c) and large scale quarrying (9d).
Ecology Strong interest in parts Several large SSSIs on moorland tops or flows (9a,c) including Caudbeck Flow, Kielder Mires (Part), Christianbury Craggs, Butterburn Flow, Spadeadam Mires all part of the Border Mires SAC and a few small SSSIs (9a) eg Mollen Woods Kirkby Moor SSSI extending south along ridge top to Bank House	Moorland landscape of rough pasture with areas of rush and purple moor-grass, acid grassland and upland heath, extensive blanket bog (9a,d) and small raised bogs (9b,c) characterised by sphagnum moss. Moorland important for a variety of butterflies, moths and breeding birds such as skylark, lapwing, and curlew, short eared owl and grouse. Rush pasture in West Cumbria supports internationally important numbers of hen harrier (9a,d). Other habitats include species rich springs and flushes (9a,d); upland oak woodland present in steep river valleys (9a,d) and alder wet woodland (9a,c); species rich roadside verges (9b Eden); coniferous plantations supporting goshawk (9c) long-eared owl (9b).
Geology 9a: 3 no. RIGGS 9c Spadeadam: 2 no. 9d: 4 no. RIGGS	Boulder clay with occasional outcropping of limestone and sandstone crags (9a,c) Silurian grits and flags (9d)

LANDSCAPE TYPE 9i: INTERMEDIATE MOORLAND

Capacity Statement

Overall the Intermediate Moorland landscape is judged to have a **moderate/high** capacity to accommodate turbine development. This reflects low/moderate sensitivity overall. Whilst the Bewcastle Fells and Furness areas (9a and 9d) have moderate/high landscape value as LoCIs on balance the attributes recognised are considered unlikely to be significantly compromised by wind energy development. Their distinctive character is mainly attributable to simple moorland forms and land cover indicating lower sensitivity as discussed below. Natural and cultural features in both areas and striking views in Furness (9d) are also recognised under this designation but for the most part are localised and should influence siting and design rather than reduce capacity in the landscape as a whole. The only other significant value associated with this type is moderately strong ecological interest which is mainly attributable to tracts of nationally or internationally important moorland habitat. It is considered that this value should influence siting rather than reduce capacity in the landscape as a whole.

The key factor favouring development is a moorland character typified by broad tracts of elevated, windswept and largely empty land covered by rough grass and heather. If isolated and well designed in response to the scale and shape of landform such a development could create a symbolic focal point in clear visual contrast to the simple moorland vegetation canvas and smooth skylines. There is potential for positive association with the 'working' character of afforested areas (9c) and large scale engineered elements such as quarries and reservoirs (9d).

The very large to vast scale of the high plateaus and forests around Bewcastle (9a,c) suggests scope for medium to large wind farm development with opportunity for organic configurations in response to the form of individual hills or broad moorland sweeps. The absence of settlement and visual containment offered by large scale forest backdrops are also likely to assist absorption here. The lower undulating fringe (9a,c) suggests scope for large groups of turbines but the terrain and irregular field patterns offer less scope for positive visual linkage.

Small to large groups of turbines responding to the shape and scale of individual hills would be appropriate in Furness (9d) exceptionally a small wind farm might be accommodated on the higher moors responding to the overall grain of the ridge.

There are some limiting factors, most notably the potential for turbine development to erode a sense of remoteness and wildness. Other issues include protection of largely uncluttered pristine skylines around Bewcastle (9a) and visual clutter and confusion with existing turbines and masts on the ridge in Furness (9d). There is also localised potential for turbines on the open edges of the high plateaus or ridge to be overbearing or intrusive in relation to settlements, visitor routes and prospects from neighbouring landscapes of high sensitivity.

Particular sensitivities in relation to the setting of international and national designations include:

- *backdrop to Hadrian's Wall WHS provided by moorland around Spadeadam (southern edges of 9a and 9c)*
- *contribution to tranquil and picturesque compositions with Lakeland fells around the Duddon estuary and views from the Furness Fells and trunk road the skirting edge of Lake District NP (9d)*

LANDSCAPE TYPE 9ii: MOORLAND HILLS AND LOW PLATEAUS

Landscape Sub-Types	9a Open Moorlands (West Cumbria) 9b Rolling Farmland and Heath (Eden, South Lakeland) 9d Ridges (West Cumbria)
Key Characteristics	Sensitivity
Landscape Character:	
<p>Scale and Enclosure Medium to large scale rolling hills (9b Eden, d) or low plateaus (9a,b S. Lakeland). String of long hills or 'riggs' combine to form distinct High Park ridge (9d) in W. Cumbria. Medium to large sized fields. Generally open can be enclosed by small-medium sized plantations, within valleys between hills or hummocky relief (9b S. Lakeland). Scale indicators include small woods, gill features, tarns and rocky outcrops (9b S. Lakeland), walls, isolated buildings, hamlets, villages, pylons and trees.</p>	<p>Low/Moderate (2) Scale of topography, land cover and settlement and degree of enclosure generally suggest scope for up to a small group development. In close range turbines may appear out of scale against detailed features of relief and land cover.</p>
<p>Complexity and Order Distinctive topographic grain to ridges or hills. Generally simple and balanced combination of elements often transitional land cover large rectangular fields of rough pasture giving way to of improved pasture on lower slopes sometimes in smaller narrower fields (9d W. Cumbria). Conifer or mixed plantation blocks and remnant broadleaved woodland often in gills feature quite strongly in all parts. Patterns can be more diverse, patchy cover of marshy hollows, heath, rocky outcrops, tarns (9b S. Lakeland higher parts) and recently restored opencast areas (9a). Power lines or motorway can cut across topographic grain (9a, 9b S. Lakeland).</p>	<p>Low/Moderate (2) Opportunities for organic configurations in response to particular grain of hills or ridges. In lower managed areas more ordered arrangement might relate to regular field patterns and compare visually with plantation blocks. Varied land cover patterns offer less scope for visual linkage. Potential for turbine arrangements to exacerbate discordant linear utility or infrastructure features.</p>
<p>Manmade Influence Higher parts have rough untamed texture as mainly rough moorland. Improved parts and plantation blocks convey a more functional character. Localised presence of manmade elements eg motorway, masts, small reservoirs in 9b S. Lakeland, pylons in 9b S. Lakeland and 9a W. Cumbria and opencast coal mining in W. Cumbria. Narrow wooded gill/valley features in all parts, variety of natural features such as marshy hollows, rocky outcrops, tarn etc in 9b S. Lakeland and historic mining villages present in 9a.</p>	<p>Moderate (3) Turbine development has potential to erode integrity of untamed and featureless character of rough moorland areas. However a well designed isolated group could be perceived as a complementary contrast. Potential to correspond to other manmade elements and positive association with working character of improved farmland or plantation blocks. However also potential to appear incongruous in context of natural features eg wooded valleys/gills or historic mining villages.</p>
<p>Skyline Mostly smooth with multiple summits sometimes broken by plantations. More reposeful plateau skylines in 9a and 9b S. Lakeland. Latter hummocky in outline at northern end. Skyline often featureless although isolated buildings and woods (9a,d W. Cumbria), or masts and pylons (9a, 9b S. Lakeland) can stand out.</p>	<p>Low/Moderate (2) Opportunity for isolated turbine groupings to create a new focal point in clear visual contrast to simple moorland skylines although maintenance of a predominantly uncluttered skyline is an issue. Other issues relate to potential for localised confusion of form and function with other manmade verticals and competition with natural or historic punctuations.</p>
<p>Connections and Adjacent Landscapes Sharp elevational contrasts create strong visual connections with heavily settled coastal strip (5,2) for 9a,d W. Cumbria and broad valleys (8b) for 9b both containing some important towns and recreation routes. Views often restricted by steep ridge or plateau sides. Inter-visibility with nearby fells most of which are nationally valued which can create dramatic backdrops (9b and d).</p>	<p>Moderate/High (4) Potential for intrusion on sensitive coastal strip and valleys, setting of important towns, recreation routes and prospects from and to adjacent fells of high sensitivity. Plateaus (9a, 9b S. Lakeland) offer some scope to site turbines away from sensitive edges. Large scale backdrop and visual containment of High Park ridge to 9a may assist absorption of turbines.</p>
<p>Remoteness and Tranquillity Generally lightly settled areas that retain a peaceful backwater character. Occasional noise and movement eg M6 on edge of 9b S. Lakeland, Settle/Carlisle railway (9b Eden), local commuter/recreation routes, off road activity parks.</p>	<p>Moderate/High (4) Noise and movement of turbines likely to compromise peaceful backwater character.</p>
Visual:	
<p>Visual Interruption Visibility interrupted by rolling or hummocky terrain, shoulders of scarp slopes and plantations. More limited containment on open High Park ridge (9d) and plateau edges.</p>	<p>Moderate (3) Degree of containment likely to assist absorption. Turbine development on plateau edges and ridge (9d) likely to be more widely visible. Higher degree of visual containment towards centre of plateaus and where plantations present.</p>
<p>Settlement and Key Views Lightly settled with dispersed pattern of isolated farmsteads, houses and occasional hamlets/small villages. Views in Eden across 9b near Appleby from Eden Valley Cycle Route and Settle/Carlisle Railway, in S. Lakeland M6 Killington viewpoint, in W. Cumbria panoramas of coast and Lakeland Fells from local roads and open access area (9d)</p>	<p>Low/Moderate (2) Dispersed settlement and key views present some limitations on siting and size of development.</p>
Overall Sensitivity	Moderate

LANDSCAPE TYPE 9ii: MOORLAND HILLS AND LOW PLATEAUS

Value	
Landscape Designations and Planning Policies	Scale it Matters and Why
Landscape of County Importance 9b South Lakeland and 9d West Cumbria	County: Protection of distinctive character attributable to 9b: varied land cover, natural and built features eg patches of heather and rush pasture on ridge tops, marshy hollows, tarns streams, stone walls, rocky outcrops, hamlets and views of surrounding fell tops and into adjacent valleys creating a strong positive response. 9d: distinct land form of ridge, natural moorland land cover, striking views of adjacent fells, coast or estuary, absence of detractors and woodland and stone wall features of interest creating a strong positive response.
Ancient Woodland Generally sparse: 9a: few around Gilgarran in W. Cumbria largely re-planted 9b: Hoff Lunn Eden and Lune Valley fringes S. Lakeland 9d: block at Branthwaite in W. Cumbria	National/Regional: Conservation of ancient semi-natural woodlands as irreplaceable nature conservation assets with associated interests including characteristic landscapes
Rarity	Area of County
9a Open Moorlands 9b Rolling Farmland and Heath 9d Ridges	1.8%: unusual 2.3%: unusual 1.1%: unusual
Conservation Interests and Associations	Description
Historic Environment Localised interest Conservation Areas: Settle/Carlisle Railway in Eden (9b)	In W Cumbria (9a,d) settlement pattern dispersed some clusters of 19 th century industrial workers housing (9a). Earthworks including prehistoric settlements and burial cairns and medieval shielings. Fields often large and formed by late moorland enclosure. Lower down on ridge (9d) at Weddicar Rigg long narrow fields defined by stone walls. In South Lakeland dispersed settlement pattern with limestone built farmsteads. In general buildings date from 17 th century onwards. The field system is late and often originated in the 19 th century. In Eden the settlement pattern is based on nucleated villages with a field pattern of early enclosures often containing fossilised strips. Settlement is sparse, in lower areas nucleated, higher areas dispersed and later in origin. Lower down fields are irregular often small but on higher land generally regular and product of late enclosure. Prehistoric settlements and burial cairn remains.
Ecology Interest across rough moorland, locally strong 9b: In Eden SSSIs along Hoff Beck and Helm Beck and 2 small pockets, in S. Lakeland SSSIs limited to isolated wetland pocket	Moorland of rough and improved pasture containing areas of rush pasture and purple moor-grass, upland heathland and acid grassland. In South Lakeland of note south of Killington presence of a series of small raised bogs characterised by sphagnum moss whilst coniferous plantations support long-eared owl. In Eden species rich roadside verges occur south of Appleby. In W. Cumbria rush pasture and purple moor grass dominant on High Park ridge (9d). Lower slopes support rush pasture and swamp, together with improved grassland. Steeply incised valleys support small upland oak woodlands. Moorland important for a variety of butterflies, moths and breeding birds such as skylark, lapwing, curlew, short eared owl and grouse. Rush pasture in West Cumbria supports internationally important numbers of hen harrier (9a,d).
Geology Isolated pockets of interest: 9a W. Cumbria: 2 no. RIGGS 9b Eden: 2no. small RIGGS 9b S. Lakeland: 2no. small RIGGS 9d W. Cumbria: 2no. small RIGGS	Significant exposures of Permian rocks in Eden including Penrith Brockram.

LANDSCAPE TYPE 9ii: MOORLAND HILLS AND LOW PLATEAUS

Capacity Statement

Overall the Moorland Hills and Low Plateaus landscape is judged to have a **moderate** capacity to accommodate turbine development. This reflects moderate sensitivity overall. Whilst the South Lakeland (9b) and West Cumbria (9d) areas have moderate/high landscape value as LoCIs on balance the attributes recognised are considered unlikely to be significantly compromised by wind energy development. Their distinctive character is mainly attributable to simple moorland forms and land cover indicating lower sensitivity as discussed below. Natural and cultural features and striking views in both areas are also recognised under this designation but for the most part are localised and should influence siting and design rather than reduce capacity in the landscape as a whole.

Whilst mixed or transitional in character these areas retain a moorland character typified by elevated, windswept and largely empty land covered by rough grass and heather. These core moorland characteristics suggest scope to accommodate turbine development. If isolated and well designed in response to the scale and shape of landform such a development could create a symbolic focal point in clear visual contrast to the simple moorland vegetation canvas and smooth skylines. The medium to large scale of this landscape suggests scope for up to small groups of turbines either in organic configurations in response to the form of individual hills or ridges and their overall grain or more ordered arrangements related to regular field patterns or plantation blocks. Turbine development would sit less comfortably where land cover patterns become patchier and varied in character as they offer less scope for visual linkage. In South Lakeland (9b) this problem tends to be exacerbated by the hummocky nature of the rolling farmland and heath near Kendal.

A key constraint is the potential for turbine development to erode a peaceful backwater character. Another is the potential for intrusion on adjacent major valleys and coastal strip and the setting of important towns and popular recreation routes within them as well as prospects to and from nearby fells of national value. Other issues include protection of largely uncluttered pristine skylines (9b Eden and 9d West Cumbria), potential for localised visual confusion with the form and function of masts and pylons (9a West Cumbria and 9b South Lakeland) and competition with natural or historic punctuations.

Whilst there is potential for positive association with the 'working' character of improved farmland or plantations there is also localised potential for turbines to appear incongruous and out of scale in the context of natural and historic features such as wooded gills, tarns, smaller historic field patterns and historic mining villages.

Particular sensitivities in relation to the setting of international and national designations include:

- *in West Cumbria contribution of the High Park ridges and moors to vistas and coastal panoramas from the C2C Cycle Route (NCR 71), the Ennerdale and Loweswater Fells and 'gateways' to the Lake District NP off the A5086*
- *views from the western Howgill Fells in the Yorkshire Dales NP and Sedbergh 'gateway' towards the rolling farmland and heath near Kendal and back towards the Park from the A684, M6 and Killington Reservoir viewpoint*
- *contribution of the rolling farmland and heath near Appleby to panoramic views of the Vale of Eden and Lakeland fells beyond from the western scarp of the North Pennines AONB, most notably from the Pennine Way as it descends from High Cup Nick, and views back towards the imposing scarp from National Cycle Routes 68 and 71 and the Pennine Bridleway.*

LANDSCAPE TYPE 11: UPLAND FRINGES

Landscape Sub-Types	11a Foothills 11b Low Fells
Key Characteristics	Sensitivity
Landscape Character:	
Scale and Enclosure Varies with altitude from medium scale enclosed rolling or hilly farmland to larger scale plateau farmland, open fell bottoms or moorland and outlying low fells (11b). Land cover also varies from improved pasture fields to open moorland. Field size reflects local relief, small in hilly parts but large on flatter plateaus. Variety of scale indicators in lower parts including walls, hedges, conifer plantations, deciduous trees and small woods, rocky outcrops and minor valleys but higher areas tend to be featureless.	Moderate (3) Small group would not intimidate low fells and plateau farmland. Exceptionally a large group might relate to broad sweep of fell side or moorland. Lower more pronounced hilly terrain highly sensitive due to intimate scale and potential for over dominance in restricted zones of visibility. In close range turbines may appear incongruous and out of scale against detailed features of relief and land cover. Most likely to appear rational on windswept hill/fell tops of southern and western upland fringes.
Complexity and Order Transitional but generally balanced and calm. Simple open moorland of rough pasture with colourful patches of heather and extensive conifer plantations in parts gives way to lower farmland dominated by improved pasture. Farmland can be simple with a pattern of large square fields and small plantations with poor hedges, fences and walls or diverse in hillier parts with smaller fields and a variety of features such as streams and wooded minor valleys, wooded steep slopes, tarns and marshy hollows, rocky outcrops, boundary trees and tree clumps round farms. Low fells (11b) have NE/SW grain.	Moderate (3) Opportunities for organic configurations related to form of individual low fells and larger hills or sweep of lower fell sides. Simple moorland canvas offers potential for dramatic contrast. On lower flatter farmland plateau rectilinear group might mirror regular filed pattern and plantation blocks. More diverse hilly terrain highly sensitive due to potential confusion of variable heights and limited scope for visual linkage.
Manmade Influence Trend towards reduced variety due to agricultural intensification and afforestation in 20 th century. Symptoms include neglect or removal of walls, hedges, deciduous woodland and loss moorland to improved pasture or conifer plantations. Largely unspoilt but harmony sometimes locally weakened by large modern quarries, pylons, conifer blocks, masts, M6 or farm sheds.	Moderate/High (4) Potential for positive association with working character of intensively farmed or afforested areas and large scale engineered aspects such as quarries or roads. However may be perceived as exacerbating deterioration of rough untamed qualities and compromising unspoilt character.
Skyline Complex skyline of interwoven hills with intermediate horizons interrupted by trees and woods gives way to emptier smooth fells or moorland. Frequently backed by higher uplands. Few points of vertical focus except occasional pylons, masts, and existing turbines. Pronounced hills can create immediate and dominant skylines relative to valleys and frame vistas.	Moderate/High (4) Potential for confusing and unpredictable relationship with complex skyline of lower foothills. In higher parts limited scope for isolated turbine grouping to form a predictable and clear visual contrast with barer fell and moorland skylines but may appear illogical in context of higher upland skylines. Potential for localised over dominance and visual confusion with pylons, masts and existing turbines.
Connections and Adjacent Landscapes Generally part of a wider hierarchical and uplifting scene with adjacent uplands (13) including N. Pennines escarpment, Lakeland Fells and Howgills. Often contrasting textures and colours serve as a foil. Also contribute to setting of main valleys (8b), towns such as Kendal, Ulverston and Cleator Moor and Hadrian's Wall. Furness foothills important to open and scenic estuarine views. Intervisibility with surrounding fell tops some of which nationally valued.	Moderate/High (4) Whilst large scale backdrops of uplands likely to assist absorption in terms of scale turbines have potential to clutter and detract from jar against foreground of wider restful and well composed scenery. Also potential for intrusion on sensitive valley rims, setting of important towns and Frontiers of the Roman Empire: Hadrian's Wall as well as prospects from adjacent fells. discordant
Remoteness and Tranquillity Rapid transition from remote open uplands to more settled farmland generally perceived as peaceful rural backwaters. Only major disturbance is the M6 motorway which carves through the low fells (11b) and to lesser extent other through routes such as A595, A6, A685, A684 and A69.	Moderate/High (4) Noise and movement of turbines maybe appropriate adjacent to through routes but elsewhere likely to compromise sense of remoteness in higher parts and peaceful backwater character of settled parts.
Visual:	
Visual Interruption Varies from prominent sweeps of open fell side/moorland to lower rolling foothills where visibility is significantly interrupted by the relief, individual and clumps of trees, plantations, hedges and buildings. Low fells (11b) open but broken configuration into individual summits tends to shorten views.	Moderate (3) Turbine development assisted by rolling topography and frequent interruptions resulting in glimpsed or intermittent views. However likely to stand out on fell sides and moorland.
Settlement and Key Views Absent or only isolated farmsteads across higher parts but frequent scattered farmsteads, hamlets and small villages served by minor roads evenly spread across lower foothills. Concentration of villages evident along foot of North Pennine scarp and elsewhere along main through routes. Views of southern part of N Pennines from Pennine Bridleway, C2C Cycle Route (also Copeland), Eden Valley Cycle Route and W2W Cycle Route (also S Lakeland). Fox's Pulpit view (11b).	Moderate (3) Higher parts offer scope to site development well away from settlements whilst dispersed settlement in lower foothills presents greater limitations on siting and size of development.
Overall Sensitivity	Moderate

LANDSCAPE TYPE 11: UPLAND FRINGES

Value	
Landscape Designations and Planning Policies	Scale it Matters and Why
Frontiers of the Roman Empire: Hadrian's Wall World Heritage Site and Setting Northern fringe of 11a N Pennines (setting)	International: Protection of core archaeological features of the Roman wall and coastal defences as well as their landscape setting
North Pennines AONB Eastern fringes of 11a North Pennines strip	National: Conservation and enhancement of natural beauty derived from the special qualities of: a unique landscape unit with a distinctive geology and unusually large extent of high, exposed semi-natural moorland which has outstanding wilderness qualities; scenic contrasts and unfolding sequence of simple moorland, sheltered dales and dramatic scarp as well as spectacular individual features; moorland landscapes valued for their long views and western scarp affords panoramic views; special interests of historic mining landscape, unique flora and fauna, unusual range of geological and geomorphological features and wealth of archaeological and historical remains which contribute to landscape character.
Landscape of County Importance All areas beyond AONB	County: Protection of distinctive character attributable to natural/built features, absence of detractors, views, and sometimes landform or land cover creating a strong positive response.
Registered Historic Parks and Gardens E part of Holker Hall	National: Protection of special historic interest of parks and gardens and their settings
Ancient Woodland Concentrations along River Gelt in N Pennines, Ellerside and Millom Park in Furness and Great Wood in West Cumbria	National/Regional: Conservation of ancient semi-natural woodlands as irreplaceable nature conservation assets with associated interests including characteristic landscapes
Rarity	Area of County
11a Foothills 11b Low Fells	8.5%: common 0.5%: rare
Conservation Interests and Associations	Description
Historic Environment Widespread archaeological remains Conservation Areas: Cumrew and Dufton in N Pennines Cartmel and Newland in Furness	Settlement pattern dispersed in foothills (11a) and few isolated farmsteads in low fells (11b). Field system product of late enclosure. Some farms originated as late as 16 th century. Ring garths and intakes identifiable. Widespread upstanding remains include prehistoric stone circles and cairns, medieval shielings and droveways, remnants of late medieval deer parks and prolific industrial remains eg quarrying and lead mining. Some areas especially rich eg Warcop Common.
Ecology Many small pockets of interest Limited in N. Pennines and S Lakeland to SSSIs and sometimes SACs or SPAs over main rivers and becks or moorland extensions. Also Limestone Pavements Orders east of Kirkby Stephen. Designations absent in Furness except for RIGGS near Millom. In W Cumbria small RIGGS, SSSI/SAC on R Ehen and few small sites.	Low fells (11b) and N/ E areas (11a) support areas of upland heath and acid grassland. Rush pasture frequent on poorly drained ground throughout and species rich hedgerows in lower parts. Many small valleys often support upland oak woods and habitat for otters and dippers. Occasional outcrops of limestone support limestone grassland and upland ash woodland. Purple moor grass, gorse scrub and small stands of wet woodland in damp hollows also found in low fells (11b).

LANDSCAPE TYPE 11: UPLAND FRINGES

Capacity Statement

Overall the Upland Fringes landscape is judged to have **low/moderate** capacity to accommodate turbine development. This reflects moderate sensitivity overall, moderate/high to high landscape value recognised by LoCI and AONB designation* and moderately strong historical and ecological interest. Rapid transitions in character occur with changes in altitude which affect acceptability.

Within the North Pennines gently rolling or terraced upland fringe landscapes along the northern edge and the south west end around Stainmore Gap have a particular sensitivity because of their contribution to the contrasting sequence of landscapes valued under the AONB designation. In between foothills on the edge of the Vale of Eden run up to join the dramatic western scarp and together these form one of the most distinctive parts of the AONB. Here dramatic and varied landforms, panoramic views and a string of historic scarp foot sandstone villages are qualities likely to be compromised by any scale of wind energy development.

Key constraints within this type include the potential for wind turbines to compromise the unspoilt character and sense of remoteness or peace found in these rural backwaters; general absence of comparable man-made structures; visual context against higher uplands in which turbines may appear illogical if placed below the main skyline and clutter the foreground of wider and uplifting landscape compositions.

Higher parts offer some aspects favourable to turbine development. The larger scale outlying low fells, moorlands, fell bottoms and high plateau farmland suggest scope for small group development and possibly a large group on broader topographic sweeps. This could create a focal point in clear visual contrast to a simple moorland canvas of rough pasture and heathland or relate to the regular large scale pattern of fields and plantations and associate with large scale engineered aspects such as main roads and large quarries.

The restricted views and intimacy of the lower foothills are likely to be intimidated by turbine development. A dispersed pattern of small settlements would make it difficult to avoid over dominance and a complex skyline of interwoven hills and diverse farmland exhibiting a variety of natural and historic features suggests potential for visual confusion.

Particular sensitivities in relation to the setting of national and international designations include:

- *sequential views towards the AONB from Hadrian's Wall Trail and Cycle Route (part of NCR 72) and from viewpoints at the forts, milecastles and camps between Lanercost and Birdoswald*
- *sequential views towards Frontiers of the Roman Empire: Hadrian's Wall from the Tindale Fells in the AONB (NCR 72), Pennine Way as it descends into the Irthing Valley and A69*
- *panoramic views from the upland edges of the AONB over the Vale of Eden towards the Lakeland fells most notably from the Pennine Bridleway around Croglin Fell and Knock Gill, the A686 pass, Hartside Cross viewpoint, the Maiden Way and the C2C Cycle Route (NCR 7), the Pennine Way around High Cup and from the Stainmore Gap A66, Coast to Coast footpath and W2W Cycle Route 'gateway'*
- *views from below where the scarp forms an imposing wall above the Vale of Eden most notably from the A66, A686, Settle Carlisle Railway, Pennine Bridleway and C2C and EV Cycle Routes (NCR 7/ 68)*
- *views from the Shap Fells and Potter Fell on the south-eastern fringe of the Lake District NP and sequential views in from the W2W Cycle Route (NCR 68), Dales Way and A6*
- *contribution to tranquil and picturesque compositions with fells in the Lake District NP around the Duddon and Leven estuaries and views from the trunk road skirting edge of Park and 'gateways' off it, National Cycle Route 72, Furness Fells and Black Combe*
- *in West Cumbria views from the C2C Cycle Route (NCR 71) and views out from the Ennerdale and Loweswater Fells and 'gateways' off the A5086 to the Lake District NP*
- *views from the western Howgill Fells in the Yorkshire Dales NP over the low fells and back towards them from the A684 and M6*

* For those areas that fall within the North Pennines Area of Outstanding Natural Beauty Policy R45 in the Cumbria and Lake District Joint Structure Plan 2001 – 2016 applies

LANDSCAPE TYPE 12: HIGHER LIMESTONE

Landscape Sub-Types	12a Limestone Farmland 12b Rolling Fringe	12c Limestone Foothills 12d Moorland & Commons
Key Characteristics	Sensitivity	
Landscape Character:		
<p>Scale and Enclosure Mostly large scale rolling or undulating hills and fells with occasional steep slopes and scars. Generally open and bare with wide views sometimes exposed (12d) or more enclosed in valleys. Medium/small scale fields in settled farmland (12a) and foothills (12c south). Otherwise broad scale land cover fabric of open commons (12d), large allotments of rough pasture and remnant heath or conifer plantations sometimes extensive (12b, 12c north). Scale indicators scarce increasing in settled farmland (12a) include: walls, hedges, occasional tree clumps, relict broadleaved woods, and rock outcrops.</p>	<p>Low/Moderate (2) Scale and wide horizons generally suggest scope for a small to large scale group development. Lower improved farmland and valleys highly sensitive due to intimate scale, potential for over dominance in restricted zone of visibility and context of more frequent natural and built scale indicators.</p>	
<p>Complexity and Order Generally balanced. Core areas include simple moorland forms covered by rough grassland/heather mosaics with extensive limestone pavements/scars and isolated trees (12d) and rolling farmland with improved pasture divided by stone walls into a strong pattern of small fields around ancient villages softened by trees (12a). Transitional fringe areas of mixed pasture are sometimes fairly simple divided into large rectangular fields with isolated plantations and occasional tree clumps with signs of neglect (12b) or more distinctive estate land with extensive plantations, parkland and some ancient woodland (12c).</p>	<p>Moderate/High (4) Turbines likely to disrupt scenic harmony of core limestone areas of rolling farmland with distinctive historic patterns and simple craggy moorland with mosaics of natural grassland and heather. Simpler fringe areas less sensitive with potential for ordered turbine groupings to mirror large regular fields or plantation blocks.</p>	
<p>Manmade Influence Strong sense of history in core areas (12a,d) with evidence of settlement as early as Neolithic. Rich legacy of visible archaeological remains including medieval field patterns. Trend towards reduced variety due to agricultural intensification and afforestation in 20th century. Symptoms include neglect or removal of walls, woods, boundary trees loss of species rich grassland/heather moorland and large farm sheds. Localised presence of large quarries, masts, pylons and roads with concentration by M6.</p>	<p>Moderate/High (4) Turbines likely to appear incongruous in context of historic field patterns and visible remains. Limited potential for positive association with afforestation and large scale engineered aspects such as quarries or roads. However may be perceived as exacerbating deterioration of rough untamed qualities and compromising unspoilt character.</p>	
<p>Skyline Simple flowing horizons sometimes stepped in profile with (12a,d) or more rounded (12b,c). Generally bare and smooth occasionally textured by trees. Can form landmark skylines eg Hilltop/Sandale escarpment (12b) or eye catching scars (12d). Skyline complicated by trees scrub and interweaving ridges in lower areas. Pylons and masts conspicuous in parts.</p>	<p>Moderate (3) Some scope for isolated turbine grouping to form a predictable and clear visual contrast with barer fell and moorland skylines but visual clutter is an issue. Distinctive landmark skylines likely to be compromised. Potential for unpredictable relationship with complex skyline of lower farmland and visual confusion with pylons and masts.</p>	
<p>Connections and Adjacent Landscapes Strongly connected by inter-visibility with nearby fells (13) some of which nationally valued including Lakeland Fells, North Pennines and Howgills. In Allerdale (12b north) defines the edge of the Solway Basin. Can contribute to setting of important valleys, settlements and viewpoints eg upper Lune valley and Kirkby Stephen, Caldbeck valley and Faulds Brow.</p>	<p>Moderate/High (4) Whilst large scale backdrops of uplands may sometimes assist in absorption of turbines they may clutter and jar against distinctive sometimes dramatic views of adjacent fells. Also potential for intrusion on sensitive valley rims, settlement settings and prospects from adjacent fells.</p>	
<p>Remoteness and Tranquillity Only major disturbance is the M6 motorway and to lesser extent other through routes such as A66, A685, A595 and A5086. Population tends to be concentrated in historic villages with surrounding agricultural areas generally perceived as quiet and calm. Higher unsettled parts remote and tranquil.</p>	<p>Moderate/High (4) Noise and movement of turbines maybe appropriate adjacent to through routes but elsewhere likely to compromise sense of remoteness found in higher parts and quietness elsewhere.</p>	
Visual:		
<p>Visual Interruption Generally open ranging from bare grazing land and limestone pavements to settled farmland with trees concentrated around villages and farms or in valleys. Low incidence of interruption although localised containment by relief and plantations.</p>	<p>Moderate/High (4) Turbine development likely to stand out and be widely visible.</p>	
<p>Settlement and Key Views Largely absent across 12d and other higher parts. On lower farmland population concentrated in historic villages or isolated farmsteads. Villages often linear located in minor valleys or more nucleated next to springs on edge of moors, with strong limestone built character, greens and farm buildings within them. Views from national recreation routes: Pennine Bridleway; Coast to Coast footpath; W2W and C2C Cycle Routes.</p>	<p>Moderate/High (4) Higher parts offer some scope to site development well away from settlements but can be constrained tourism facilities. Lower settled farmland presents greater limitations on siting and size of development constrained by small scale nature of historic villages with potential for over dominance.</p>	
Overall Sensitivity	Moderate/High	

LANDSCAPE TYPE 12: HIGHER LIMESTONE

Value	
Landscape Designations and Planning Policies	Scale it Matters and Why
Landscape of County Importance 12a, c, d and parts of 12b.	County: Protection of distinctive character attributable to landform (except 12b,c Eden) natural/built features (except 12b Allerdale), absence of detractors, views, and sometimes cultural features (a, d) or land cover (b, c, d) creating a strong positive response.
Registered Historic Parks and Gardens N tip of Lowther Castle and Image Garden Reagill (12b)	National: Protection of special historic interest of parks and gardens and their settings
Ancient Woodland A few notably Crosby Gill and Scandal Beck (12a), gill woods on edge of Solway Basin (12b), Hoff Lunn Eden (12a/b) and around Greystoke Park (12c)	National/Regional: Conservation of ancient semi-natural woodlands as irreplaceable nature conservation assets with associated interests including characteristic landscapes
Rarity	Area of County
12a Limestone Farmland 12b Rolling Fringe 12c Limestone Foothills 12d Moorland & Commons	2.7%: ordinary 2.3%: unusual 1.3%: unusual 2.0%: unusual
Conservation Interests and Associations	Description
Historic Environment Rich concentration of visible remains particularly in 12a and 12d. Conservation Areas: Settle/Carlisle railway (12a/d) and several villages across 12a	In Eden nucleated villages often with greens and traditional farm buildings within them surrounded by mix of late and early enclosures with fossilised strips (12a, b Eden c) sometimes linked to commons by droveways or outgangs. In 12d little settlement, commons unenclosed and what enclosure exists is late. Features include earthworks eg prehistoric boundary walls, stone circles and cairns (12a,d), Viking remains (12b Allerdale), Roman roads (12d,c), early medieval settlement remains and evidence of medieval deer parks (12a, c), ridge and furrow and lynchets (12a,b), abandoned quarries and limekilns (12a,b,d), and isolated barns(12a).
Ecology Rich interest especially in 12d and 12a. Limited interest in 12b. Core areas of 12d covered by SACs/SSSIs/ large Limestone Pavement Orders and a NNR. Some of these spill over into fringes of 12a which also has patchy designation of SSSIs along rivers and grassland plus RIGGS near Nateby. Designations virtually absent across 12b except a few SSSIs along main rivers, a few RIGGS. Also very limited across 12c except small Limestone Pavement Orders near Greystoke, RIGGS and SSSI	Internationally important limestone pavements, upland heathland and acid grassland predominate in 12d. Limestone grassland present where limestone outcrops (12a,c,d, 12b occasional) species rich springs and flushes(12a,c,d). Parts notable for species rich hay meadows and broad roadside verges (12a,c). Stands of upland ash woodland often along gills and river valleys (12a, 12b occasional, 12c) many small rivers and becks support otter and crayfish. Some interest in disused quarries eg great crested newts (12b). Wood pasture and veteran trees in Greystoke Park (12c).
Geology and Geomorphology Important exposures of carboniferous limestone. LPOs and RIGGS as described above	Till and fluvio-glacial deposits exposed along Scandal Beck provide key evidence in Quaternary stratigraphy. Glacial erratic boulders of pink Shap Granite east of Shap (12d).

LANDSCAPE TYPE 12: HIGHER LIMESTONE

Capacity Statement

Overall the Higher Limestone landscape is judged to have **low/moderate** capacity to accommodate turbine development. This reflects moderate/high sensitivity overall, moderate/high landscape value recognised by LoCI designation in most areas and strong geological, ecological and historical interests. Acceptability is affected by localised geographical variations in the degree to which limestone characteristics are exhibited and wealth of historic features.

A key limiting factor is the open character of this type whereby any development is likely to be widely visible with only localised containment by relief or trees. This is liable to exacerbate potential problems of over dominance and intrusion relative to historic villages, and prospects from tourist routes and viewpoints both within this type and from the nearby fells of national landscape importance. Whilst there is some localised intrusion from modern developments, especially around the M6 corridor, this landscape type is largely unspoilt. Therefore protection of uncluttered and distinctive landmark skylines and a sense of remoteness or quietness are also major issues. Most parts are also rich in visible historic remains which are vulnerable in terms of both their scale and character.

Core areas that exhibit distinctive limestone features such as limestone pavements, scars and historic field patterns and others with parkland and ancient woodland are vulnerable because of their scenic richness and harmony. However there are some blander fringes, with fewer limestone features, that would not be intimidated by a small or possibly large sized group development especially if visually linked to large scale field patterns or forestry blocks. There is also some potential for positive association with large scale engineered components such as quarries and roads.

Particular sensitivities in relation to the setting of national designations include:

- *contribution of the rolling fringe around Ullock to coastal panoramas from the Loweswater Fells and C2C Cycle Route in the Lake District NP*
- *contribution of the rolling fringe on the edge of the Solway Basin to coastal panoramas from the northern fells of the Lake District NP including outliers such as Binsey, Green How and Faulds Brow, the Uldale and Caldbeck Fells and the Skiddaw massif, framed views out of valley 'gateways' off the A595 and sequential views from the Allerdale Ramble, Cumbria Way and Regional Cycle Route 10*
- *contribution of the lightly settled limestone foothills, which extend into the LDNP, to the quieter north-eastern fells*
- *panoramic views across the limestone foothills around Greystoke towards the Vale of Eden from the Carrock/ Bowscale fells and Blencathra massif in the Lake District NP and views back to the imposing steep eastern faces of these fells most notably from the C2C Cycle Route*
- *views from the Pooley Bridge 'gateway' to the Lake District NP and M6, A592, A66 approaches*
- *close affinity between limestone commons and farmland around Shap and the Haweswater Lake District NP 'gateway' landscape, with geological, historic and cultural connections*
- *key views out from the popular High Street range and back towards the Park from the M6, A6, Coast to Coast footpath and W2W Cycle Route (NCR 68)*
- *contribution to Vale of Eden panoramas from the Stainmore Gap North Pennines AONB 'gateway' most notably from the A66 and W2W Cycle Route (NCR 71) and towards the AONB from the same cycle route (NCR 68), the Settle Carlisle Railway, Pennine Bridleway and A685*

Appendix 2

**Wind Turbine Applications in Allerdale between 1st April
2011 and 31st March 2016**

Reference	Description	Address	No. of turbines	Height to tip (m)	Power	Use	Decision	Notes
2/2010/0704	Erection of 3 turbines	Langrigg Hall, Langrigg, Wigton, CA7 3LH	3	30	15kW	Private	Approved	Superceded by 2/2011/0589
2/2011/0184	Erection of small scale turbine	East Curthwaite Farm, East Curthwaite, Wigton, CA7 8BJ	1	24.8	11kW	Private	Approved	
2/2011/0198	Erection of a single turbine	Moss Side House Farm, Newton Arlosh, Wigton, CA7 5HE	1	21	15kW	Private	Withdrawn	
2/2011/0210	Erection of a single turbine	Micklethwaite West, Micklethwaite, Wigton, CA7 0EY	1	21	15kW	Private	Refused	
2/2011/0242	Erection of a single turbine	Land adjacent to Chalkside Farm, Carwath, Rosley, CA7 8BZ	1	27	20kW	Private	Approved	
2/2011/0259	Erection of a single turbine	Land at Wythegill Syke, Seaton, CA15 8RX	1	92.5	2MW	Utility	Allowed at appeal	
2/2011/0265	Erection of a single turbine	Park House, Aikton, Wigton, CA7 0JW	1	27.1	20kW	Private	Approved	
2/2011/0293	Erection of a single turbine	High Aketon, Waverton, Wigton, CA7 0BP	1	27.1	20kW	Private	Approved	
2/2011/0363	Erection of a single turbine	Croftlands, Bothel, Wigton, CA7 2JL	1	27.1	20kW	Private	Approved	
2/2011/0444	Erection of a single turbine	Moor House Farm, Winscales, Workington, CA14 4JZ	1	47.2	100kW	Private	Approved	
2/2011/0463	Erection of a single turbine	Town Head Farm, Brocklebank, Wigton, CA7 8DH	1	27.1	20kW	Private	Approved	
2/2011/0477	Erection of a single	Micklethwaite West, Micklethwaite, Wigton, CA7 0EY	1	21	15kW	Private	Approved	

	turbine							
2/2011/0543	Erection of a single turbine	Land at Shaw House Farm, Kirkbride, Wigton, CA7 5HW	1	47.1	100kW	Utility	Refused	
2/2011/0574	Erection of a single turbine	Low Tarns, Silloth, Wigton, CA7 4NQ	1	24.8	11kW	Private	Withdrawn	
2/2011/0589	Erection of 4 turbines	Langrigg Hall, Langrigg, Wigton, CA7 3LH	4	27.2	80kW	Private	Approved	
2/2011/0646	Erection of 3 turbines	Brownrigg Hall Farm, Allonby, Maryport, CA15 6RB	3	19.25	36.3kW	Private	Refused	
2/2011/0660	Erection of a single turbine	Middlemoor, Oulton, Wigton, CA7 0NP	1	34.6	165kW	Private	Withdrawn	
2/2011/0665	Erection of a single turbine	Moss Side House Farm, Newton Arlosh, Wigton, CA7 5HE	1	20.4	15kW	Private	Withdrawn	
2/2011/0722	Erection of a single turbine	How End Farm, How End, Thursby, CA5 6PX	1	66.8	330kW	Private	Withdrawn	
2/2011/0860	Erection of a single turbine	Low Tarns, Silloth, Wigton, CA7 4NQ	1	24.8	11kW	Private	Approved	
2/2011/0862	Erection of a single turbine	Greyrigg House, Thornby, Wigton, CA7 0HG	1	27.1	15kW	Private	Approved	
2/2011/0864	Erection of a single turbine	Lane Head Farm, Boltongate, Wigton, CA7 1DH	1	79	500kW	Utility	Refused	
2/2011/0895	Erection of a single turbine	Moss Side House Farm, Newton Arlosh, Wigton, CA7 5HE	1	20.1	15kW	Private	Approved	
2/2011/0917	Erection of a single turbine	Homerigg Farm, Bulgill, Maryport, CA15 6TP	1	27.1	20kW	Private	Approved	
2/2011/0938	Erection of a single turbine	Shaw House, Kirkbride, Wigton, CA7 5HW	1	34.8	Unknown	Unknown	Approved	

2/2011/0962	Erection of two turbines	Brownrigg Hall Farm, Allonby, Maryport, CA15 6RB	2	19	24kW	Private	Withdrawn	
2/2011/0973	Erection of a single turbine	Brayton Park, Brayton, Aspatria, CA7 3SX	1	62	500kW	Private	Allowed at appeal	Supercedes 2/2010/0370
2/2012/0026	Erection of a single turbine	Land at High Aketon, Wigton, CA7 0BP	1	27.1	20kW	Private	Approved	
2/2012/0040	Erection of 2 turbines	Thornby Villa, Thornby, Wigton, CA7 0HN	2	46	100kW	Private	Approved	
2/2012/0051	Erection of a single turbine	Harrington Parks Farm, Copperas Hill, Harrington, CA14 5RX	1	61	330kW	Utility	Allowed at appeal	
2/2012/0101	Erection of a single turbine	Land off Charity Lane, High Harrington, Workington	1	79.6	500kW	Private	Withdrawn	
2/2012/0140	Erection of a single turbine	Moordyke, Aikton, Wigton, CA7 0JF	1	34.5	80kW	Private	Approved	
2/2012/0146	Erection of a single turbine	Land at Moorhouse Hall, Aikton, Wigton, CA7 0NT	1	24.9	11kW	Private	Approved	
2/2012/0195	Erection of a single turbine	Middlemoor, Oulton, Wigton, CA7 0NP	1	34.2	50kW	Private	Withdrawn	
2/2012/0218	Erection of a single turbine	Green Croft, Oughterby, Carlisle, CA5 6JH	1	34.6	50kW	Private	Withdrawn	
2/2012/0226	Erection of a single turbine	Sycamore House, Kirkbride, Wigton, CA7 5JZ	1	34.2	50kW	Private	Refused	
2/2012/0240	Erection of a single turbine	Land at Ling Farm, Welton, Carlisle, CA5 7EW	1	47	100kW	Private	Withdrawn	
2/2012/0241	Erection of a single turbine	Land at The Ling, Welton, Carlisle, CA5 7EW	1	47	100kW	Private	Refused	
2/2012/0293	Erection of	Land to the east of Pennygill Road, Ewanrigg Hall	1	67	900kW	Utility	Dismissed	

	a single turbine	Farm, Flimby					at appeal	
2/2012/0315	Erection of a single turbine	Land to the west of Goose Green Farm, Crookdake, Aspatria, CA7 3SH	1	67	900kW	Utility	Appeal allowed	
2/2012/0345	Erection of a single turbine	Tarns Farm, Silloth, CA7 4NQ	1	46	50kW	Private	Appeal allowed	
2/2012/0354	Erection of a single turbine	Green Croft, Oughterby, Carlisle, CA5 6JH	1	34.2	50kW	Private	Appeal allowed	
2/2012/0421	Erection of a single turbine	Middlemoor, Oulton, Wigton, CA7 0NP	1	34.2	50kW	Private	Withdrawn	
2/2012/0424	Erection of a single turbine	Hall Bank, Aspatria, CA7 2JX	1	34.6	50kW	Private	Allowed at appeal	
2/2012/0425	Erection of a single turbine	Leesrigg Farm, Mealsgate, Aspatria, CA7 1BZ	1	34.6	50kW	Unknown	Withdrawn	
2/2012/0429	Erection of a single turbine	Homerigg Farm, Bullgill, Maryport, CA15 6TP	1	27.1	20kW	Private	Approved	
2/2012/0438	Erection of a single turbine	Laythes Farm, Kirkbride, Wigton, CA7 5LB	1	43.2	100kW	Private	Withdrawn	
2/2012/0479	Erection of 2 turbines	Brownrigg Hall Farm, Allonby, Maryport, CA15 6RB	2	19	24kW	Private	Approved	
2/2012/0488	Erection of a single turbine	Land off Charity Lane, High Harrington, Workington	1	79.6	400kW	Private	Dismissed at appeal	
2/2012/0498	Erection of a single turbine	Site Lane Head Farm, Boltongate, Wigton	1	61	500kW	Private	Dismissed at appeal	
2/2012/0524	Erection of a single turbine	The Flatt Farm, Great Orton, Carlisle, CA5 6NG	1	68.5	900kW	Utility	Dismissed at appeal	
2/2012/0544	Erection of	Land at Wellington Farm, Lamplugh Road,	1	79.6	400kW	Utility	Dismissed	

	a single turbine	Cockermouth, CA13 0QU					at appeal	
2/2012/0586	Erection of a single turbine	Broom Hill, Hall Bank, Prospect, Aspatria, CA7 2JX	1	46	50kW	Private	Withdrawn	
2/2012/0593	Erection of a single turbine	The Flatt, Kirkbampton, CA5 6NG	1	79.6	500kW	Private	Withdrawn	
2/2012/0594	Erection of 3 turbines	Land at Potato Pot, Branthwaite, Workington	3	100	6MW	Utility	Allowed at appeal	
2/2012/0603	Erection of a single turbine	Prospect House, High Scales, Aspatria, CA7 3NG	1	67	900kW	Utility	Allowed at appeal	
2/2012/0622	Erection of a single turbine	Carrick Dean, Edderside, Maryport, CA15 6RA	1	41.7	100kW	Private	Withdrawn	
2/2012/0624	Erection of 2 turbines	Dundraw Farm, Dundraw, Wigton, CA7 0DP	2	17.8	12kW	Private	Approved	
2/2012/0635	Erection of a single turbine	Leesrigg Farm, Mealsgate, Wigton, CA7 1BZ	1	34.6	50KW	Unknown	Allowed at appeal	
2/2012/0682	Erection of a single turbine	Land adjoining airfield, Wiggonby, Wigton, CA7 0JR	1	62	330kW	Utility	Dismissed at appeal	
2/2012/0700	Erection of a single turbine	Land at How End Farm, Thursby, Carlisle, CA5 6PX	1	74	500kW	Private	Approved	
2/2012/0706	Erection of a single turbine	Land at Clea Mire, Westward, Wigton, CA7 8NQ	1	45	225kW	Utility	Dismissed at appeal	
2/2012/0725	Erection of a single turbine	Shaw House Farm, Kirkbride, Wigton, CA7 5HW	1	34.5	80kW	Unknown	Refused	
2/2012/0753	Erection of a single turbine	Firs Farm, Crookdake, Wigton, CA7 0BP	1	45	225kW	Private	Allowed at appeal	
2/2012/0754	Erection of a single	Down Hall Farm, Aikton, Wigton, CA7 0HW	1	20	20kW	Private	Withdrawn	

	turbine							
2/2012/0794	Erection of a single turbine	Land at Broom Hall, Hall Bank, Prospect, CA7 2JX	1	34.5	50kW	Private	Approved	
2/2012/0807	Erection of a single turbine	Bromfield Farm, Bromfield, Wigton, CA7 3NB	1	48.5	60kW	Private	Withdrawn	
2/2012/0914	Erection of a single turbine	Site at West House Farm, Dearham	1	77	500kW	Utility	Allowed at appeal	
2/2012/0916	Erection of a single turbine	Land at Fox House Farm, Great Broughton	1	77	500kW	Utility	Allowed at appeal	
2/2013/0021	Erection of a single turbine	Bothel Craggs Farm, Bothel, Wigton, CA7 2JN	1	33.8	80kW	Private	Withdrawn	
2/2013/0037	Erection of two turbines	Snowhill Farm, Caldbeck, Wigton, CA7 8HL	2	34.2	100kW	Private	Refused	
2/2013/0082	Erection of a single turbine	Hunday Farm, Winscales, Workington	1	77	500kW	Private	Allowed at appeal	
2/2013/0129	Erection of a single turbine	Shaw House, Kirkbride Airfield, Kirkbride, CA7 5HW	1	34.5	80kW	Unknown	Withdrawn	
2/2013/0144	Erection of a single turbine	Bromfield Farm, Bromfield	1	48.5	60kW	Private	Allowed at appeal	
2/2013/0166	Erection of a single turbine	Burton House Farm, Tallentire, Cockermouth, CA13 0PT	1	38.9	80kW	Private	Refused	
2/2013/0218	Erection of two turbines	The Close Farm, Silloth, CA7 4QB	2	45	450kW	Private	Withdrawn	
2/2013/0242	Erection of a single turbine	Site at Aiglegill farm, Aspatria, Wigton, CA7 2PL	1	71	275kW	Utility	Dismissed at appeal	
2/2013/0324	Erection of two turbines	Beech House Farm, Hayton, Aspatria, CA7 2PD	2	46	100kW	Private	Withdrawn	
2/2013/0336	Erection of	Brownrigg Hall Farm, Allonby, CA15 6RB	2	21.5	22kW	Private	Approved	

	2 turbines							
2/2013/0372	Erection of a single turbine	Croft House, Bromfield, Wigton, CA7 3NB	1	18	5kW	Private	Withdrawn	
2/2013/0456	Erection of a single turbine	Blencogo House, Blencogo, Wigton, CA7 0BZ	1	24.5	11kW	Private	Withdrawn	
2/2013/0494	Erection of a single turbine	Tarn Bank, Winscales, Workington, CA14 4JG	1	74	500kW	Utility	Approved	
2/2013/0495	Erection of a single turbine	East Town End, Winscales, Workington, CA14 4JG	1	74	500kW	Utility	Approved	
2/2013/0519	Erection of eight turbines	High Pow Wind Farm, Bolton New Houses	8	100	16MW	Utility	Withdrawn	
2/2013/0522	Erection of two turbines	Balladoyle Farm, Silloth, CA7 4QA	2	25	22kW	Private	Withdrawn	
2/2013/0579	Erection of a single turbine	Studholme Farm, Kirkbride, Wigton, CA7 5ER	1	46.3	50kW	Private	Withdrawn	
2/2013/0705	Erection of a single turbine	Kelsick House Farm, Kelsick, Abbeytown	1	86.5	500kW	Utility	Dismissed at appeal	
2/2013/0735	Erection of a single turbine	Hayborough Farm, Crosshow Road, Dearham, CA15 7RA	1	46.3	50kW	Private	Withdrawn	
2/2013/0745	Erection of two turbines	West House Farm, Pelutho, Silloth, CA7 4LT	2	24.5	22kW	Private	Withdrawn	
2/2013/0794	Erection of a single turbine	Dundraw Farm, Dundraw, Wigton, CA7 0DP	1	67	500kW	Utility	Withdrawn	
2/2013/0806	Erection of a single turbine	Moorhouse Hall, Aikton, Wigton, CA7 0NT	1	24.9	11kW	Private	Approved	
2/2013/0843	Erection of a single turbine	Schoose Farm, High Street, Workington, CA14 4JB	1	81	500kW	Utility	Withdrawn	

2/2013/0858	Erection of a single turbine	Croft House, Bromfield, Wigton, CA7 3NB	1	17.4	5kW	Private	Approved	
2/2014/0078	Erection of a single turbine	Waverbank Farm, Waverbank, Wigton, CA7 8PN	1	45	250kW	Private	Withdrawn	
2/2014/0419	Erection of a single turbine	Reathwaite Farm, Reathwaite, Wigton, CA7 8DN	1	45	520kW	Private	Dismissed at appeal	
2/2014/0449	Erection of a single turbine	West House Farm, Silloth, Wigton, CA7 4LT	1	24.5	11kW	Private	Dismissed at appeal	
2/2014/0483	Erection of two turbines	Clea Green, Westward, Wigton, CA7 8NQ	2	27.1	40kW	Private	Withdrawn	
2/2014/0484	Erection of a single turbine	New Grange, Dearham, Maryport, CA15 7LA	1	45	225kW	Private	Approved	Superseded by 2/2015/0389
2/2014/0490	Erection of a single turbine	Fell Hill, Welton, Carlisle, CA5 7HH	1	45.1	250kW	Unknown	Withdrawn	
2/2014/0525	Variation to change size of turbine	Leesrigg Farm, Mealsgate, Aspatria, CA7 1BZ	N/A	N/A	N/A	N/A	Approved	
2/2014/0582	Erection of a single turbine	Oughterside Mill, Oughterside, Aspatria, CA7 2PZ	1	34.5	50kW	Private	Approved	
2/2014/0710	Erection of a single turbine	The Flatt, Kirkbampton, CA5 6NG	1	19.9	15kW	Private	Approved	
2/2014/0842	Erection of a single turbine	Clea Green, Westward, Wigton, CA7 8NQ	1	21.97	20kW	Private	Approved	
2/2014/0894	Erection of two turbines	Moota Hill, Moota, CA13 0QA	2	54.7	450kW	Utility	Withdrawn	
2/2015/0026	Erection of a single turbine	Roundhill Farm, Welton, CA5 7HH	1	74	500kW	Utility	Withdrawn	
2/2014/0861	Erection of	Drumleaning Farm, Drumleaning, Wigton, CA7 0NU	1	67	1.3MW	Utility	Refused	

	a single turbine							
2/2014/0584	Erection of a single turbine	The Ling, Welton, CA5 7EW	1	25	20kW	Private	Withdrawn	
2/2015/0213	Erection of a single turbine	Aikton House, Aikton, Wigton, CA7 0JD	1	47	250kW	Private	Refused	
2/2015/0391	Erection of a single turbine	The Ling, Welton, CA5 7EW	1	25	20kW	Private	Withdrawn	
2/2015/0413	Erection of a single turbine	Springfield Farm, Greysouthen, CA13 0UW	1	67	500kW	Utility	Refused	
2/2015/0296	Erection of a single turbine	Moor House Farm, Winscales, Workington, CA14 4JZ	1	45	250kW	Private	Refused	
2/2015/0030	Erection of 3 turbines	Land at White Lees Farm, Aspatria, CA7 2PL	3	110	6MW	Utility	Withdrawn	
2/2014/0867	Erection of a single turbine	Land west of Wharrels Wind Farm, Bothel	1	74	500kW	Utility	Withdrawn	
2/2014/0737	Erection of 2 turbines	Iggesund Paperboard, Siddick, Workington, CA14 1JX	2	110	6MW	Utility	Refused	
2/2015/0549	Erection of a single turbine	The Ling, Ling Lane, Welton, CA5 7EW	1	25	20kW	Private	Refused	
2/2014/0596	Erection of a single turbine	Land south of Great Clifton, Off Moor Road	1	79.6	500kW	Utility	Refused	
2/2015/0389	Erection of a single turbine	New Grange, Bullgill, Maryport	1	48.01	225kW	Private	Approved	Supersedes 2/2014/0484
2/2015/0628	Erection of a single turbine	Roundhill Farm, Welton, CA5 7HH	1	77	500kW	Utility	Refused	
2/2014/0292	Erection of a single	Water Flosh, Aikton, Wigton	1	77	500kW	Utility	Dismissed at appeal	

	turbine							
2/2014/0520	Erection of a single turbine	Arkleby House Farm, Arkleby, Wigton	1	45	250kW	Private	Allowed at appeal	
2/2014/0269	Erection of a single turbine	Waverbank, Wigton, CA7 8PN	1	45	250kW	Private	Dismissed at appeal	
2/2014/0293	Erection of a single turbine	Dundraw Farm, Dundraw, Wigton, CA7 0DP	1	67	500kW	Utility	Dismissed at appeal	
2/2014/0504	Erection of a single turbine	Threapland Lees, Threapland, Aspatria, CA7 2JP	1	79.6	800kW	Private	Dismissed at appeal	
2/2014/0628	Erection of a single turbine	Land east of Carrick Dean, Edderside, Maryport	1	35	100kW	Private	Dismissed at appeal	
2/2012/9011	Erection of 4 turbines	Lillyhall Landfill Site, Joseph Noble Road, Lillyhall Industrial Estate, Workington	3	99	9.2MW	Utility	Appeal dismissed	County Council application

Appendix 3

**Areas identified as suitable for wind energy development
within Allerdale**

-  Area Suitable for Wind Energy Development (small scale)
-  Area Suitable for Wind Energy Development (all scales)
-  Lake District National Park

