

# Habitats Regulations Assessment
# Cumbria Wind Energy
# Supplementary Planning
# Document

## Revised June 2007

## The need for an assessment

Cumbria Wind Energy Supplementary Planning Document (SPD) is being developed to provide guidance on local planning policy across Cumbria. The local planning authorities for Allerdale, Carlisle, Copeland, Eden, South Lakeland and the Lake District National Park are producing this guidance jointly with Cumbria County Council to provide a county wide approach to wind energy development. Barrow Borough Council is committed to adopting the SPD at a future date.

The SPD was subject to public consultation during October - December 2006. At this time it was identified that an assessment was required in accordance with the Habitats Directive 92/43/EEC and Habitats Regulations 1994.

These require a Habitats Regulations Assessment to be carried out for the SPD in order to determine any likely significant effects that it might have on the integrity of European nature conservation sites. These are designated as either Special Areas of Conservation (SACs) or Special Protection Areas (SPAs). Collectively the sites form part of a European network of protected areas known as Natura 2000, and Ramsar sites. The government requires that Ramsar sites are afforded the same level of protection as European sites. The sites in Cumbria are set out in Appendix 1 and Maps 1, 2 and 3.

Advice from Natural England, following a scoping meeting and comments on an initial draft, and guidance from David Tyldesley Associates (March 2007), as commissioned by Natural England, have been used to develop and revise this assessment.

It is currently programmed to adopt the SPD in September 2007.

## Baseline data gathering

Information on the sites and features of the SACs and SPAs was taken from the Screening Report of the Habitats Regulation Assessment of the NWRA Regional Spatial Strategy (January 2007) and the JNCC website.

A variety of plans and programmes have been reviewed for the 'in combination' part of the assessment. These relate to regional, sub regional and local plans and guidance. Plans and programmes that relate to Cumbria and its local planning authorities and neighboring authorities were included, where available. Several of the plans are old and predate the need for a Habitats Regulation Assessment, or are in the early stages of preparation and have not yet had an assessment carried out. A list of the plans and programmes considered can be found in Appendix 2.

## Predicting and assessing effects on a European Site

When carrying out the assessment the following issues were considered:

- Scope of the draft guidance
- Character of wind energy development
- Sensitivities associated with the European Sites
- Whether or not there are sufficient safeguards for European sites
- Findings of landscape capacity assessment in relation to European sites
- The likely effects of wind energy development on the integrity of European sites

- The likelihood that further HRA (and associated Appropriate Assessment) would be necessary at the planning application stage.

Scope of the draft guidance

The draft SPD aims to provide advice to support policies in the Local Development Frameworks, and replaces previous supplementary planning guidance for wind energy issued in 1997. It provides guidance only and reflects current and emerging national, regional and local planning policy. It does not include any policies or site allocations. It provides guidance and advice on the full range of environmental, social and economic planning issues related to wind energy development and aims to assist in determining planning applications and to help interpret planning policy. It focuses on wind turbines that are 25m tall to hub height, or over. The SPD includes detailed advice on landscape and visual impact issues and a landscape capacity assessment. This indicates the potential for accommodating wind energy development in landscape terms only. The capacity findings are mapped by landscape character type and included in the SPD.

The guidance is divided into three parts.
Part 1 – guidance on addressing landscape, visual and other environmental and social effects when preparing wind energy proposals.

Part 2 – contains the landscape capacity assessment.

Part 3 – guidance on landscape and visual impact assessments.

Character of wind energy development

Wind energy development is characterised by one or more wind turbines. These are commonly between 70 – 125m tall when measured from the ground to the top of an upright blade. The blades are fixed to a gear box on top of a tower. The moving blades pass through the air when wind speeds are high enough. On average they will often turn for 33% of the time. The turbines are mounted on a concrete base and foundations. Where there is more than one turbine, and particularly in a rural setting, they are linked together by access tracks. Ancillary infrastructure usually include crane hard standings during construction, a small single storey switch gear building, an anemometer to measure wind speed, and overground or underground cables to transport the electricity to the electricity network.

Sensitivities associated with the European Sites

It is generally accepted that wind energy development could potentially affect European sites and features in a range of ways.

- Direct habitat loss or damage (on and off site)
- Interference with geological processes (eg slope profile)
- Interference with hydrological processes (eg increased runoff, erosion, silting)
- Disturbance to, displacement of and collision with mobile species such as bats and birds (eg for migration, feeding, nesting and over wintering)

Sensitivities associated with birds can relate to both loss of habitat as a result of the construction of the turbines and ancillary infrastructure, displacement of birds due to the construction and operation causing disturbance to feeding, breeding and over wintering grounds, and the potential for mortality due to collision with turbine blades.

Such risks need to be determined for any wind energy development. The draft SPD highlights these issues and requires developers to consider such issues when developing schemes in Cumbria.

When reviewing the characteristics associated with the European sites in and adjacent to Cumbria it is considered that these issues above are relevant, particularly with regard to habitat loss and effects on birds.

Whether or not there are sufficient safeguards for European sites

The draft SPD recognises that effects to biodiversity could take place during the construction, operation or decommissioning phases of wind energy development and could arise from any element of the development including the foundations, access roads, moving turbines and ancillary buildings and infrastructure. Cumulative effects may also impact on biodiversity across a wide area arising from both wind energy and other development/activities.

With regard to internationally designated sites and features, the draft SPD states that:

*"New schemes should avoid these sites and should not cause any detriment to the characteristics of protected habitats or protected species. Scheme should not cause harm to habitats and species outside a designated site that may adversely affect the integrity of a site, or cause a significant decline in the size, distribution, structure or function of a population of a species for which a site was designated."*

It also states specifically for birds that:

*"an assessment will need to be carried out to establish any protected, priority or rare species in or within the vicinity of a site and any migratory routes and any habitats related to such species. Careful consideration needs to be given to SPA, SAC, and RAMSAR sites which are often associated with coastal and moorland/upland areas. These areas have had the greatest pressure from wind energy development in the past and steps need to be taken to ensure there is no harm to these interests. In coastal locations attention also needs to be paid to issues of collision with migratory birds, as many fly along the coastal areas to reach feeding/breeding grounds in protected habitats around the Duddon Estuary, Walney and Morecambe Bay areas. An assessment of potential impacts will need to be carried out and any mitigation measures determined to remove the potential for harm. These may relate to micro siting and design or the creation of supporting habitat within the locality. This information should be part of the EIA.*

*The cumulative impacts on bats and birds must also be assessed in relation to other proposed, approved or operational wind energy schemes."*

The draft SPD includes a landscape capacity assessment that identifies potential capacity in landscape terms only to accommodate wind energy development. Natural England has expressed concerns that this could potentially steer interest from developers to areas where there are European sites and associated features.

The draft SPD does not currently identify the need for a Habitats Regulation Assessment to be carried out for proposals that could affect a European site or its associated species.

Findings of the landscape capacity assessment in relation to European sites

Consideration has been given to the findings of the landscape capacity assessment in relation to the European sites and known areas where associated features can be found off site. The landscape capacity assessment indicates the capacity of broad landscape character types to accommodate wind energy development. Some of these landscape character types contain European sites and features. Within these character types there could be the potential, in landscape terms only, to accommodate between 3 – 25 turbines. However, the actual number and size of any new development would be dependant on its location and site characteristics, and the need to satisfactorily address all other planning issues. However, until developers come forward with specific proposals for development and the location of the site and the details of the proposal are known it would be difficult to demonstrate that there would be no likely significant effect on a European site. The proximity of a proposal to such a site and its key features would need to be considered in order to determine if any likely significant effect could arise from the sensitivities identified above.

The likely effect of wind energy development on the integrity of European sites

A matrix has been used to help with considering this part of the assessment. This is included at Appendix 3. To reflect the methodology applied to the NW RSS the following impact criteria were used:

- N = significant effects unlikely
- P? = significant effects possible
- P = significant effects probable

It was concluded that significant effects could be possible for any European site in Cumbria for the following reasons:

- Although the SPD is not site specific it seeks to support wind energy development that by its nature could cause likely significant effect to habitats and associated species for the reasons set out above.
- In order to demonstrate no likely significant effect, alone and in combination, an assessment would need to be carried out on a site by site basis as wind energy proposals come forward. It is only at this stage that the necessary details of the location and characteristics of a scheme will be known and information on the proximity of a wind energy site to a European site would be established along with any potential effects on habitats and species associated with the European site.
- Although there is some text in the draft SPD referring to the need for developers to carry out an assessment on nature conservation interests it does not refer to the need for a Habitats Regulations Assessment to be carried out in accordance with the Habitats Regulations 1994.

The likelihood that further HRA would be necessary at the planning application stage.

As concluded above, in order to ascertain that wind energy schemes, alone and in combination, will not have an adverse effect on the integrity of a European site or feature a Habitats Regulations Assessment would need to be carried out on a site by site basis as wind energy proposals come forward.

**Findings of assessment and avoidance measures**

The assessment has indicated that the draft SPD, in its current form, could result in likely significant effects on the integrity of European sites. Although the draft SPD is not site specific, it's wide ranging scope and landscape capacity findings could potentially result in wind energy development being proposed close to European sites or features which could create an adverse effect.

In order to remove the likely significant effect consideration has been given to potential avoidance measures. It was identified that additional text could be added to the draft SPD to ensure sufficient safeguards are in place to eliminate likely significant effects. These would accord with the findings of the NW RSS Habitats Regulations Assessment. This concluded than an overarching reference should be made to the need for development to be assessed in relation to the Habitats Regulations Assessment, and specifically sought for additional text to be added to paragraph 13 of RSS policy EM17 Renewable Energy "…habitats and species, **and which avoid significant adverse effect on European sites."**

It is proposed to make the following changes to the draft SPD before it is adopted to ensure it accords with the Habitats Regulations.

The structure of the SPD should be revised to include two parts, not three. Part One will provide context and guidance on all planning related issues set out in the Cumbria Joint Structure Plan policy R44. This will include a revised section dedicated to biodiversity. Part Two will provide specific guidance on landscape and visual effects and their assessment, along with a landscape capacity assessment. This part will include a caveat to ensure it is read in conjunction with Part One and to emphasise the fact that all planning related issues will be considered equally.

Appendix 4 to this report includes the revised text that will focus on biodiversity. This will set out the considerations that are needed with regard to European sites and features and advise on the need for a Habitats Regulations Assessment to be carried out. The specific text arising from the findings of this Habitats Regulations Assessment, and advice from Natural England is highlighted in blue. In particular Natural England advised that any revisions to the draft SPD should:

a. make it clear that any wind energy development coming forward will need to carry out an assessment in accordance with the Habitat Regulations to determine likely significant effect on sites or features associated with a European site;

b. include a statement to the effect that wind energy development must demonstrate that it will not have an adverse effect on the integrity of any European/ international sites and their features and that any such development unable to demonstrate no adverse effect is not supported by the Local Development Framework:

   *Any development that could have an adverse effect on the conservation objectives of a European or Ramsar wildlife site is not provided for in Policies 44 & 45 of the Joint Structure Plan 2001-2016 and would not be in accordance with the development plan so it would not, therefore, have the benefit of S.38 of the 2004 Act at application stage.*

# Appendices

## Appendix 1

**Table 1 European Sites and Features – SACS**

| SITE | PRIMARY FEATURES | QUALIFYING FEATURES |
|---|---|---|
| Asby Complex | Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*)<br>*Molinia* meadows on calcareous, peaty or clayey silt-laden soils (*Molinion caeruleae*)<br>Petrifying springs with tufa formation (*Cratoneurion*) *Priority feature<br>Alkaline fens<br>Limestone pavements<br>Geyer's whorl snail<br>Slender green feather-moss | Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.<br>European dry heaths<br>Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* * |
| Border Mires, Kielder – Butterburn | Blanket bogs *<br>Transition mires and quaking bogs | Northern Atlantic wet heaths with *Erica tetralix*<br>European dry heaths<br>Petrifying springs with tufa formation (*Cratoneurion*) **** |
| Borrowdale Woodland Complex | Old sessile oak woods with Ilex and *Blechnum* in the British Isles | Not applicable |
| Clints Quarry | Great crested newt | Not applicable |
| Cumbrian Marsh Fritillary Site | Marsh fritillary butterfly | Not applicable |
| Drigg Coast | Estuaries<br>Atlantic decalcified fixed dunes (*Calluno-Ulicetea*)<br>Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*) | Mudflats and sandflats not covered by seawater at low tide<br>*Salicornia* and other annuals colonising mud and sand<br>Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)<br>Embryonic shifting dunes<br>Shifting dunes along the shoreline with *Ammophila arenaria* (`white dunes`)<br>Fixed dunes with herbaceous vegetation (`grey dunes`) *<br>Humid dune slacks |
| Duddon Mosses | Active raised bogs<br>Degraded raised bogs still capable of natural regeneration | Not applicable |
| Helbeck and Swindale Woods | Tilio-Acerion forests of slopes, screes and ravines | Not applicable |
| Lake District High Fells | Oligotrophic to mesotrophic standing water with vegetation of the *Littorelietea uniflorae* and/or of the *Isoëto-Nanojuncetea*<br>Northern Atlantic wet heaths with *Erica tetralix*<br>European dry heaths<br>Alpine and Boreal heaths<br>*Juniperus communis* formations on heaths or calcareous grasslands<br>Siliceous alpine and boreal grasslands<br>*Hydrophilous* tall herb fringe communities of plains and of the montane to alpine levels<br>Blanket bogs *<br>Siliceous scree of the montane to snow levels (*Androsaoetalia alpinae* and *Galeopsietalia ladani*)<br>Siliceous rocky slopes with chasmophytic vegetation<br>Old sessile oak woods with Ilex and *Blechnum* in the British Isles | Species-rich *Nardus* grassland, on siliceous substrates in mountain areas (and submountain areas in continental Europe) ****<br>Alkaline fens<br>Calcareous rocky slopes with chasmophytic vegetation<br>Slender green feather-moss *Drepanocladus* (*Hamatocaulis*) *vernicosus* |

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| Moor House – Upper Teesdale | Hardoligo-mesotrophic waters with benthic vegetation of Chara spp.<br>Alpine and Boreal heaths<br>*Juniperus communis* formations on heaths or calcareous grasslands<br>Calaminarian grasslands of the Violetalia calamine ariae<br>Siliceous alpine and boreal grasslands<br>Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*)<br>Molinia meadows on calcareous, peay or clavey silt-laden soils (*Molinion caeruleae*)<br>Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels<br>Mountain hay meadows<br>Blanket bogs<br>Petrifying springs with tufa formation (*Cratoneurion*)<br>Alkaline fens<br>Alpine pioneer form alions of the *Caricion bicoloris-atrofusoae*<br>Siliceous scree of the montane to snow levels (*Andros acetalia alpinae and Galeopsietalia ladani*)<br>Calcareous and caloshistsorees of the montane to alpine levels (*Thias piete a rofundifolii*)<br>Calcareous rocky slopes with chasmophytic vegetation<br>Siliceous to dry slopes with chasmophytic vegation<br>Round mouthed whorl snail<br>Marsh saxifrage | European dry heaths<br>Limestone pavements * |
| Morecambe Bay | Estuaries<br>Mudflats and sandflats not covered by seawater at low tide<br>Large shallow inlets and bays<br>Perennial vegetation of stony barks<br>Salicornia and other annuals colonising mud and sand<br>Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)<br>Shifting dunes along the shoreline with *Ammophila arenadia* ('white dunes')<br>Fixed dunes with herbaceous vegetation ('grey dunes'} *Priority feature<br>Humid dune stacks<br>Great crested newt | Sandbanks which are slightly covered by sea water all the time<br>Coastal lagoons *****<br>Reefs<br>Embryonic shifting dunes<br>Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) *****<br>Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*) |
| Morecambe Bay Pavements | Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.<br>Juniperus communis formations on heaths or calcareous grasslands<br>Semi-natural dry grasslands and scrubland facies; on calcareous substrates (*Festuco-Brometalia*)<br>Limestone pavements<br>Tilio-Acerion forests of slopes, screes and ravines<br>Taxus baccata woods of the British Isles<br>Narrow-mouthed whorl snail | European dry heaths<br>Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* *****<br>Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles |
| Naddle Forest | Old sessile oak woods with flex and Blechnum in the British Isles | Not applicable |
| North Pennine Dales Meadows | Mountain hay meadows | *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) |

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| North Pennine Moors | European dry heaths<br>Juniperus communis formations on heaths or calcareous grasslands<br>Blanket bogs<br>Petrifying springs with tufa formation (*Cratoneurion*)<br>Siliceous rocky slopes with chasmophytic vegetation<br>Old sessile oak woods with flex and Blechnum in the British Isles | Northern Atlantic wet heaths with *Erica tetralix*<br>Calaminarian grasslands of the *Violetalia calaminariae*<br>Siliceous alpine and boreal grasslands<br>Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*)<br>Alkaline fens<br>Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*)<br>Calcareous rocky slopes with chasmophytic vegetation<br>Marsh saxifrage |
| River Derwent & Bassenthwaite Lake | Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletalia uniflorae* and/or of the *Isoëto-Nanojuncetea*<br>Marsh fritillary butterfly *Euphydryas* (*Eurodryas*, *Hypodryas*) *aurinia*<br>Sea lamprey *Petromyzon marinus*<br>Brook lamprey *Lampetra planeri*<br>River lamprey *Lampetra fluviatilis*<br>Atlantic salmon *Salmo salar*<br>Otter *Lutra lutra*<br>Floating Water-plantain *Luronium natans* | Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation |
| River Eden | Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletalia uniflorae* and/or of the *Isoëto-Nanojuncetea*<br>Water courses of plain to Montana levels with the *Ranunculion fluitantis* and *Callttricho-Batrachion* vegetation<br>Alluvial forests with Alnus glutinosa and Fraxinus excelsior (*Alno-Pdion, Alnion incanae, Salicion albae*)<br>White clawed (or Atlantic stream) crayfish *Austropotamobius pallipes*<br>Sea lamprey *Petromyzon marinus*<br>Brook Lamprey *Lampetra planeri*<br>River lamprey *Lampetra fluviatilis*<br>Atlantic salmon *Salmo salar*<br>Bullhead *Cottus gobio*<br>Otter *Lutra lutra* | Not applicable |
| River Ehen | Freshwater mussel | Atlantic salmon *Salmo salar* |
| River Kent | White clawed (or Atlantic stream) crayfish *Austropotamobius pallipes* | Freshwater pearl mussel *Margaritifera margaritifera*<br>Bullhead *Cottus gobio* |
| Roudsea Wood and Mosses | Active raised bogs<br>Degraded raised bogs still capable of natural regeneration<br>Tilio-Acerion forests of slopes, screes and ravines<br>Taxus baccata woods of the British isles | Not applicable |
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| Solway Firth | Sandbanks which are slightly covered by seawater all the time<br>Estuaries<br>Mudflats and sandflats not covered by seawater at low tide<br>Salicornia and other annuals colonising mud and sand<br>Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)<br>Sea lamprey *Petromyzon marinus*<br>River lamprey *Lampetra fluviatilis* | Reefs<br>Perennial vegetation of stony banks<br>Fixed dunes with herbaceous vegetation (`grey dunes`) * |
| South Solway Mosses | Active raised bogs | Degraded raised bogs still capable of natural regeneration |
| Subberthwaite, Blawith & Torver Low Commons | Transition mires and quaking bogs | Depressions on peat substrates of the *Rhynchosporion* |
| Tarn Moss | Transition mires and quaking bogs | Not applicable |
| Tyne & Nent | Calaminarian grasslands of the Violetalia calaminariae | Not applicable |
| Ullswater Oakwoods | Old sessile oak woods with flex and Blechnum in the British Isles | Not applicable |
| Walton Moss | Active raised bogs<br>Degraded raised bogs still capable of natural regeneration | Not applicable |
| Wastwater | Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletalia uniflorae* and/or of the *Isoëto-Nanojuncetea* | Not applicable |
| Witherslack Mosses | Active raised bogs<br>Degraded raised bogs still capable of natural regeneration | Not applicable |
| Yewbarrow Woods | *Taxus baccata* woods of the British Isles | *Juniperus communis* formations on heaths or calcareous grasslands<br>Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles |

**Table 2 – European Sites and Features – SPAS**

| SITE | PRIMARY FEATURES |
|---|---|
| Duddon Estuary | Breeding season (Article 4.1) sandwich tern<br>On passage (Article 4.2) ringed plover, sanderling<br>Over winder (Article 4.2) knot, pintail, redshank<br>Assemblage qualification (Article 4.2) 78, 415 individual water fowl |
| Leighton Moss | Breeding season (Article 4.1) bittern, marsh harrier<br>Over winter (Article 4.1) bittern |
| Morecambe Bay | Breeding season (Article 4.1) LITTLE TERN, SANDWICH TERN<br>Over winter (Article 4.2) bar tailed godwit, golden plover<br>Breeding season (Article 4.2) herring gull, lesser black-backed gull<br>On passage (Article 4.2) ringed plover, sanderling<br>Over winter (Article 4.2) Curlew, Dunlin, Grey Plover, Knot, Pink-footed Goose, Pintail, Redshank, Shelduck, Turnstone<br>Assemblage qualification (Article 4.2) regularly supporting at least 20,000 seabirds<br>Assemblage qualification (Article 4.2) regularly support at least 20,000 waterfowl |
| North Pennine Moors | Breeding season (Article 4.1) golden plover, hen harrier, merlin peregrine<br>Breeding season (Article 4.2) dunlin |
| Upper Solway Flats & Marshes | Over winter (Article 4.1) bar-tailed godwit, barnacle goose, golden plover, whooper swan<br>On passage (Article 4.2) Ringed plover<br>Over winter (Article 4.2) curlew, dunlin, knot, oystercatcher, pink-footed goose, pintail, redshank<br>Assemblage qualification (Article 4.2) regularly support at least 20,000 waterfowl |
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**Table 3 – European Sites and Features – RAMSAR**

| SITE | PRIMARY FEATURES |
|---|---|
| Duddon Estuary | Criterion 2 Natterjack toad<br>Criterion 4 regularly support internationally important numbers of waterfowl<br>Criterion 5.26, 3.26 waterfowl, northern pintail, redknot, common redshank |
| Esthwaite Water | Criterion 1 meostrophic lake with hydrosere<br>Criterion 2 pondweed assemblage, slender naiad |
| Irthinghead Mires | Criterion 1 undamaged blanket bog<br>Criterion 2 variety of Sphagnum mosses, rare plants and rare spider *Eboria caliginosa* |
| Leighton Moss | Criterion 1 reedbed<br>Criterion 2 marsh harrier, bittern, bearded tit, shoveler, water rail |
| Morecambe Bay | Criterion 4 migratory wildfowl ringed plover<br>Criterion 5 Assemblages of international importance<br>Criterion 6 spedes/populations occurring at levels of international importance |
| Upper Solway Flats & Marshes | Criterion 2 natterjack toad<br>Criterion 5 Assemblages of international importance |

**Table 4 – European Sites and Features – adjoining authorities**

| SITE | PRIMARY FEATURES |
|---|---|
| Craven Limestones | |
| Ingleborough Complex | |
| Oxclose | |
| Roman Wall Lough | |
| Tyne and Allen | |

## Appendix 2 – Plans and programmes

| Relevant Plan or Programme Identified | Brief overview and outline of policy | Comments |
|---|---|---|
| **Regional PPPs – Cumbria and adjoining authorities** | | |
| North West Draft Regional Spatial Strategy 2006 (RSS) | The draft RSS contains policy and sets indicative targets for nature conservation and energy issues. | The SPD needs to reflect relevant policies contained in the RSS. The RSS policy EM17 will be changed as a result of the habitats Regulations Assessment and this should be reflected in the SPD. As such this should not cause any significant likely effects in combination with the SPD. |
| North West Regional Sustainable Energy Strategy | The Strategy focuses on reducing energy use, increasing use of renewable energy and combined heat and power technologies. | This strategy is reflected in the Draft RSS and as such it should not cause any significant likely effects in combination with the SPD. |
| Yorkshire and Humber Draft RSS 2006 | The draft RSS contains policy and sets indicative targets for nature conservation and energy issues. | Although this plan was not subject to a HAR, and the findings of the EIP have not yet been published it was considered in conjunction with the in combination assessment of the NW HRA. Therefore it is expected that it should not cause any significant likely effects in combination with the SPD. |
| North East Draft RSS | The draft RSS contains policy and sets indicative targets for nature conservation and energy issues. | Although this plan was not subject to a HAR, and the findings of the EIP have not yet been published it was considered in conjunction with the in combination assessment of the NW HRA. Therefore it is expected that it should not cause any significant likely effects in combination with the SPD. |
| **Local PPPs – Cumbria and adjoining authorities** | | |
| Cumbria and Lake District Joint Structure Plan 2001-2016 (JSP) | The JSP guides land use in Cumbria and provides a framework for local plan making at District level outside the Lake District National Park. This includes policies acknowledging that renewable energy development should only be supported if there are no significant adverse effects on biodiversity, either individually or cumulatively. This will be replaced by the NW RSS in time. | The SPD interprets this policy and as such it should not cause any significant likely effects in combination with the SPD. |
| Durham Structure Plan 1999 | This includes policies for the protection of nature conservation interests and to support renewable energy generation. This will be replaced by the NE RSS in time. | It should not cause any significant likely effects in combination with the SPD. |
| Northumberland Joint Structure Plan 2005 | This includes policies for the protection of nature conservation interests and to support renewable energy generation. This will be replaced by the NE RSS in time. | It should not cause any significant likely effects in combination with the SPD. |
| North Yorkshire Structure Plan 1996 | This includes policies for the protection of nature conservation interests. This will be replaced by the Y&H RSS in time. | It should not cause any significant likely effects in combination with the SPD. |
| Scottish Borders Plan | This includes policies for the protection of nature conservation interests and to support renewable energy generation. | It should not cause any significant likely effects in combination with the SPD. |

| Relevant Plan or Programme Identified | Brief overview and outline of policy | Comments |
|---|---|---|
| Dumfries and Galloway Plan | This includes policies for the protection of nature conservation interests and to support renewable energy generation. | It should not cause any significant likely effects in combination with the SPD. |
| Allerdale Local Plan 1996-2006 | The Local Plan provides aims to ensure that 'new development is broadly sustainable in terms of global impact, natural resources and local environmental quality'. Development which is likely to cause unacceptable harm will be resisted. More detailed policies resist development which would adversely affect sites designated for either landscape quality or biodiversity and protecting open spaces from development.<br>This will be replaced by the LDF in time, however no core strategy available to assess. | The SPD supports this plan and as such it should not cause any significant likely effects in combination with the SPD. |
| Barrow in Furness Local Plan review 1996-2006 | The Plan sets out policies guiding the development and use of land. The Plan has a strong environmental protection core designed to enhance the Plan area's essential character and main environmental assets. Biodiversity is given policy protection.<br>This will be replaced by the LDF in time, however no core strategy available to assess. | The SPD supports this plan and as such it should not cause any significant likely effects in combination with the SPD. |
| Eden Local Plan 1996-2006 | The Local plan is based on 7 principles: promoting sustainable development in the management and use of resources; protecting against inappropriate development particularly in areas of historic, cultural, landscape, nature conservation value; balancing development against the amenity of settlements and the countryside;<br>Ensuing sufficient land is made available to meet the needs of communities; to promote viability of local communities; to promote access to jobs, homes and services; and to promote energy efficiency. | The SPD supports this plan and as such it should not cause any significant likely effects in combination with the SPD. |
| Copeland Local Plan 2001-2016 2nd Deposit version April 2005 | The Plan aims to protect and enhance landscapes, habitats and the built and natural environments.<br>This will be replaced by the LDF in time, however no core strategy available to assess. | The SPD supports this plan and as such it should not cause any significant likely effects in combination with the SPD. |
| Carlisle Local Plan 2001-2016 Redeposit Draft August 2005. | Policies seek to conserve scenic beauty, natural resources and the quality of the built environment from inappropriate development. Designated sites (wildlife and archaeology) and landscapes are given protection from development. It also aims to promote environmental protection and enhancement, (public open space, wildlife, historic environment, groundwater and surface waters).<br>This will be replaced by the LDF in | The SPD supports this plan and as such it should not cause any significant likely effects in combination with the SPD. |

| Relevant Plan or Programme Identified | Brief overview and outline of policy | Comments |
|---|---|---|
| | time, however no core strategy available to assess. | |
| South Lakeland Local Plan 2006 amended by Composite Plan 2004. | Plan policies seek to protect designated wildlife sites and habitats. This will be replaced by the LDF in time, however no core strategy available to assess. | The SPD supports this plan and as such it should not cause any significant likely effects in combination with the SPD. |
| Tynedale Local Development Framework (LDF) | This contains core policies for the protection of European site and seeks to ensure renewable energy development do not cause adverse effects to such sites. | It should not cause any significant likely effects in combination with the SPD. |
| Wear Valley Local Plan 1999 | Plan policies seek to protect designated wildlife sites and habitats against development . This will be replaced by the LDF in time, however no core strategy available to assess. | It should not cause any significant likely effects in combination with the SPD. |
| Teesdale Local Plan 2000 | Plan policies seek to protect designated wildlife sites and habitats against development . This will be replaced by the LDF in time, however no core strategy available to assess. | It should not cause any significant likely effects in combination with the SPD. |
| Richmondshire Local Plan 1999-2006 | Plan policies seek to protect designated wildlife sites and habitats against development . This will be replaced by the LDF in time, however no core strategy available to assess. | It should not cause any significant likely effects in combination with the SPD. |
| Craven District Local Plan | Plan policies seek to protect designated wildlife sites and habitats against development . This will be replaced by the LDF in time, however no core strategy available to assess. | It should not cause any significant likely effects in combination with the SPD. |
| Yorkshire Dales National Park Plan | Plan policies seek to protect designated wildlife sites and habitats against development . This will be replaced by the LDF in time, however no core strategy available to assess. | It should not cause any significant likely effects in combination with the SPD. |
| Lancaster District Local Plan | Plan policies seek to protect designated wildlife sites and habitats against development . This will be replaced by the LDF in time, however no core strategy available to assess. | It should not cause any significant likely effects in combination with the SPD. |
| Cumbria Wind Energy Supplementary Planning Guidance (SPG) 1997 | This SPG is i being replaced by the Cumbria Wind Energy Supplementary Planning Document (WE SPD) 2006. | As the SPD replaces this guidance it will not cause any significant likely effects in combination with the SPD. |

## Appendix 3

| Findings matrix – 1st iteration | SPD |
|---|---|
| **SACs** | |
| Asby Complex | P? |
| Border Mires, Kielder – Butterburn | P? |
| Borrowdale Woodland Complex | P? |
| Clints Quarry | P? |
| Cumbrian Marsh Fritillary Site | P? |
| Drigg Coast | P? |
| Duddon Mosses | P? |
| Hellbeck and Swindale | P? |
| Lake District High Fells | P? |
| Moor House – Upper Teesdale | P? |
| Morecambe Bay | P? |
| Morecambe Bay Pavements | P? |
| Naddle Forest | P? |
| North Pennine Dales Meadows | P? |
| North Pennine Moors | P? |
| River Derwent & Bassenthwaite Lake | P? |
| River Eden | P? |
| River Ehen | P? |
| River Kent | P? |
| Roudsea Wood and Mosses | P? |
| Solway Firth | P? |
| South Solway Mosses | P? |
| Subberthwaite, Blawith & Torver Low Commons | P? |
| Tarn Moss | P? |
| Tyne & Nent | P? |
| Ullswater Oakwoods | P? |
| Walton Moss | P? |
| Wastwater | P? |
| Witherslack Mosses | P? |
| Yewbarrow Woods | P? |
| **SPAs** | |
| Duddon Estuary | P? |
| Leighton Moss | P? |
| Morecambe Bay | P? |
| North Pennine Moors | P? |
| Upper Solway Flats & Marshes | P? |
| **Ramsar** | |
| Duddon Estuary | P? |
| Esthwaite Water | P? |
| Irthinghead Mires | P? |
| Leighton Moss | P? |
| Morecambe Bay | P? |
| Upper Solway Flats & Marshes | P? |
| **Adjoining SACs** | |
| Craven Limestones | N |
| Ingleborough Complex | N |
| Oxclose | N |
| Roman Wall Lough | N |
| Tyne and Allen | N |

**Appendix 4**
Extract of section on Biodiversity from Cumbria Wind Energy SPD revised in accordance with Habitats Regulations Assessment and other comments received as part of public consultation on the SPD

*Biodiversity*

1.1 Wind energy schemes are supporting the goal to reduce climate change and reduce potential changes to biodiversity. They also have the potential to both enhance or adversely affect biodiversity and nature conservation interests. Cumbria is noted for a wealth of nature conservation interests. Some of these may be particularly rare or form part of wider biodiversity networks important on more than a local scale. It is crucial for any development to take these interests into account, reducing adverse effects and considering opportunities for enhancement.

1.2 Cumbria has many international and national statutory designations, and regional and local designations both for habitats and species. National guidance and circulars, along with local planning policies, provide protection from development for areas and features of international and national importance. Additional policies provide protection for other areas and features of nature conservation interest and for enhancement.

1.3 The key international and national statutory site designations in Cumbria are shown on maps 3-6 and comprise:

**International**

- **Special Areas of Conservation (SACs)**
- **Special Protection Areas (SPAs)**
- **Ramsar (wetlands) sites**

**National**

- **Sites of Special Scientific Interest (SSSIs)**
- **National Nature Reserves**

For international sites and features that they support, new schemes need to demonstrate that they will not adversely affect their conservation value. Schemes should not cause harm to habitats and species outside a designated site that may adversely affect the integrity of a site, or cause a significant decline in the size, distribution, structure or function of a population of a species for which a site was designated. In accordance with the Habitats Regulations an assessment needs to be carried out for each new development to determine if it would have a likely significant effect, alone or in combination with other plans or projects, on sites or features associated with an international designation. If likely significant effect is determined developers are expected to provide relevant information to the Local Planning Authority to enable it to carry out an Appropriate Assessment.

1.4 Any development that could have an adverse effect on the conservation objectives of a European or Ramsar wildlife site is not provided for in RSS Policy EM17, Policies 44 & 45, E34 and ST4 of the Joint Structure Plan 2001-2016 and policies in the emerging Local Development Frameworks and would not be in accordance with the development plan. It would not,

therefore, have the benefit of S.38 of the 2004 Act at application stage. More guidance is contained in ODPM Circular 06/2005[1], PPS9 and PPS22.

1.5 For national sites, wind energy schemes will need to demonstrate that they will not have an adverse effect on a SSSI. Strict measures would be taken to ensure that harmful effects on SSSIs are avoided or mitigated against. Exceptions will only be made where the benefits clearly outweigh the impacts on the interests of the SSSI and its contribution to the national network of SSSIs. More guidance is contained in ODPM Circular 06/2005[2], PPS9 and PPS22.

1.6 This guidance does not seek to set buffer zones around international or national designations; however development proposed close to the boundaries of these designations will need to assess their effects on them.

1.7 In addition to international and national site designations there are a number of plant and animal species within England that are subject to special protection under the Habitats Regulations, the Wildlife and Countryside Act or their own legislation. Wind energy schemes will need to demonstrate that these are protected from adverse effects through the adoption of appropriate avoidance and mitigation measures.

1.8 In addition there are Regionally Important Geological/Geomorphological sites, County Wildlife Sites, and Local Nature Reserves. Development sited on or off such sites should not cause significant harm to these nature conservation interests.

1.9 It is also important for developers to consider the effects of development on non designated sites and species. Government policy seeks to protect priority habitats and species identified in the UK Biodiversity Action Plan and any additionally identified in the local Cumbria Biodiversity Action Plan. Many of these habitats and species extend outside protected sites, and consideration must be given to potential impacts when developing any scheme. If an assessment demonstrates harm a scheme could only be supported if the need for and benefits of the scheme clearly outweigh the harm and appropriate avoidance, mitigation and compensation measures are incorporated to protect and enhance biodiversity networks.

1.10 Habitats most likely to be affected are coastal habitats, upland habitats (acid grassland, heather moorland, blanket bog, flushes and mires), purple moor-grass and rush pastures, general open farmland, and connecting habitats such as hedgerows and small woods. A Key Species list is being developed for the county which will include protected, priority and Cumbria BAP species. It will be available from, and maintained by, the Cumbria Wildlife Records Centre.

1.11 Information on these interests should inform the early stages when selecting the location and designing a scheme. The maps at the back of Part 1 provide a broad indication of the international and national sites. There is a

[1] Circular 06/05 Biodiversity and Geographical Conservation - Statutory Obligations and their impact within the Planning System.

[2] Circular 06/05 Biodiversity and Geographical Conservation - Statutory Obligations and their impact within the Planning System.

need to collaborate and use information from Natural England, the Cumbria Biological Data Network through Tullie House Museum, Cumbria Wildlife Trust, RSPB, and local nature conservation groups.

1.12 Effects on biodiversity can take place during the construction, operation or decommissioning phases of a wind energy scheme. They can arise from any element of the development including the foundations, access roads, moving turbines and ancillary buildings. Cumulative effects may also impact on biodiversity across a wide area arising from both wind energy and other development/activities; see more on this in section 3, Part 1. Such effects could cause negative impacts to habitats and species found within or outside a development site. Mitigation of such effects would be required but in some circumstances a scheme might be so damaging that it may not be possible to mitigate or provide compensation against the effects.

1.13 New wind energy schemes may also provide the opportunity to protect, restore or enhance existing habitats and habitat networks and the species they support. These opportunities should be pursued where possible.

1.14 The experience of past wind energy development both in the UK and Europe has shown the main adverse effects on nature conservation to be:

- Direct habitat loss (eg for feeding, roosting, breeding etc)
- Habitat damage (eg on site and off site due to hydrology impacts)
- Interference with geological processes (eg slope profile)
- Interference with hydrological processes (eg increased runoff, erosion)
- Disturbance to, displacement of and collision with mobile species such as birds (eg for migration, feeding, nesting)

1.15 Once the habitats and species have been identified, developers need to consider the effect of the proposal on these, both alone and in combination with other developments. If adverse effects are identified appropriate mitigation needs to be considered. This could include moving the position of turbines, changing the height or number of turbines or, in some cases, seeking an alternative site. Consideration should be given to the opportunities for enhancing nature conservation with a site and its surrounds. In some cases compensatory habitat may be considered necessary to mitigate any potential habitat loss arising from a scheme. Developers will need to work closely with Natural England and others to ascertain the most appropriate approach to this. Further guidance on biodiversity issues can be found in 'Wind farm development and Nature Conservation, English Nature, RSPB, WWF and BWEA, 2001'.

**Developers should assess the effects of potential schemes, alone or cumulatively, on biodiversity sites, habitats and species and identify measures to avoid or mitigate harm to them and secure their conservation and enhancement.**

**Where a scheme, alone and in combination with other plans and projects, could have an impact on an internationally designated site, developers must carry out an assessment of the likely significant effect of the scheme in accordance with the Habitats Regulations.**

*Bats and Birds*

1.16 The impact on bats and birds is of particular interest for wind energy development. All bats and some birds are protected species that need to be considered when developing a wind energy scheme. They are potentially at risk from wind turbines in the ways identified in paragraph 1.14 above.

1.17 For bats, in areas where bat activity is likely, work will need to be carried out to establish roosts, flight lines, feeding areas, hibernation or swarming sites in the vicinity of a proposal as part of an EIA or planning statement. The results of such surveys should assist in identifying the appropriateness of the scheme, its design and layout. If a foraging habitat is likely to be affected by a scheme, then mitigation measures would be expected to ensure additional habitat is provided for within the locality and to reduce the potential for harm, however it take time to establish new habitat. Assessments should be carried out in accordance with Bat Mitigation Guidelines, English Nature, 2005 and Bat Survey Guidelines, Bat Conservation Trust, April 2007.

1.18 The issue of birds and windfarms has been debated for more than a decade. Scottish Natural Heritage produced detailed guidance in 2005 on survey methods for assessing the potential impacts on birds from onshore wind farms. This provides guidance on how to determine the potential loss of habitat as a result of infrastructure, displacement of birds due to disturbance to feeding and breeding grounds, and the potential mortality due to collision with turbine blades. Such risks need to be determined for any wind energy development. Developers are expected to consider this guidance when drawing up schemes in Cumbria.

1.19 For birds an assessment will need to be carried out to establish any protected, priority or rare species in or within the vicinity of a site and any migratory routes and any habitats related to such species. Careful consideration needs to be given to SPA, SAC, and RAMSAR sites and species which are often associated with coastal and moorland/upland areas. Birds such as whooper swans, pink footed geese and greylag geese could be affected by wind energy schemes. Species are often associated with areas off the site for feeding, roosting and overwintering. This is particularly the case for Hen Harriers from the Bewcastle Hills SPA that overwinter on moorland in the west of Cumbria. Areas close to international sites have had the greatest interest from wind energy development in the past and care needs to be taken to ensure there is no harm to these international sites.

1.20 Assessments need to recognise that the species associated with such sites are often found elsewhere throughout Cumbria, particularly for over wintering. The RSPB is developing detailed information on areas such as these and developers should contact them early in the site selection process to determine if such species are likely to be associated with a site. For example information is available for moorland areas in the west of the Cumbria that provide an overwintering habitat for Hen Harriers. In coastal locations attention also needs to be paid to issues of collision with migratory birds, as many fly along the coastal areas to reach feeding/breeding grounds in protected habitats around the Solway Firth, Duddon Estuary, Walney and Morecambe Bay areas. An assessment of potential impacts will need to be carried out and any mitigation measures determined to remove the potential for harm. These may relate to micro siting and design or the creation of

supporting habitat within the locality. This information should be part of the EIA or planning statement.

1.21 The cumulative impacts on bats and birds must also be assessed in relation to other proposed, approved or operational wind energy schemes. More information is provided on this in section 3, Part 1.

**Developers should pay particular attention to assessing the effects of wind energy schemes, alone and cumulatively with other developments, on bats, birds and other mobile species, both within and outside a site. Measure should be identified to avoid or mitigate harm to these species and secure their conservation and enhancement.**

*The role of the EIA*

1.22 For schemes where an Environmental Impact Assessment is required it is the main tool used to look in detail at nature conservation interests both on and off site. The methodology used; analysis of data and assessment of impacts should be clearly expressed in the Environmental Statement. If a scheme does not require an EIA, but is in an area affected by such issues an assessment of impacts must still be carried out and included in the planning statement. Areas to address include:

- A habitat survey that describes in detail the plant communities present on the site highlighting areas of habitats with potentially high nature conservation value[3].
- Identification of habitats and species on site and within locality.
- Identification of protected and priority habitats and species and those of local importance.
- Migratory routes of any protected or priority bird/bat species.

1.23 When carrying out assessment and evaluation information from local nature conservation bodies and Cumbria Wildlife Records Centre will help with data collection and interpretation. However this will not replace the need for detailed site surveys to be carried out at the appropriate time of year.

1.24 Developers should follow good practice advice when developing proposals in Cumbria, including:

- Survey methods for use in assessing the impacts of onshore windfarms on bird communities, Scottish National Heritage Guidance November 2005.
- Wind farm development and Nature Conservation, English Nature, RSPB, WWF and BWEA, 2001
- Scoping the environmental impacts of windfarms (onshore and offshore), Environment Agency, 2002.
- Bat Survey Guidelines, Bat Conservation Trust, 2007
- Bat Mitigation Guidelines, English Nature, 2005

[3] Use of a Phase 2 Habitat Survey methodology and National Vegetation Classification survey

MAPS