



CUMBRIA WIND ENERGY SUPPLEMENTARY PLANNING DOCUMENT

SUSTAINABILITY APPRAISAL REPORT

CONSULTATION DRAFT

August 2006

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Executive Summary

This report represents the third stage (Stage C) of the sustainability appraisal of the Cumbria Wind Energy Supplementary Planning Document (WE SPD). It follows the publication of the Scoping Report, Stage A of the sustainability appraisal in January 2006 and the assessment of likely effects, Stage B which was carried out throughout May and June 2006.

Like the Scoping Report this stage will be subject to consultation in line with Government guidance on carrying out sustainability appraisal and in accordance with the SEA Directive.

Stage C presents the technical part of the appraisal process where the WE SPD options are considered, environmental, social and economic indicators are developed to provide a yardstick for measuring change and the WE SPD is tested to ascertain its likely contribution to sustainable development objectives.

The likely effects of implementing the WE SPD are predicted, interpreted and measured against pre-determined sustainability objectives. Mitigation measures are suggested in order to provide a method for reducing environmental, social and economic impacts and monitoring framework is suggested to maintain a future programme for measuring the effectiveness of the WE SPD.

A set of recommendations are produced as a result of the sustainability appraisal. The recommendations will provide advice on aligning the WE SPD with the sustainability framework.

Stage D will follow this report and will allow representation to this consultation stage to be taken into account. Stage D will also provide an opportunity to retest any significant changes made to the WE SPD as a result of consultation and the recommendations contained within this report.

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1.0 Summary and Outcomes

1.1 Non-Technical Summary

- 1.1.1 Government guidance issued¹ in November 2005 means that certain plans and guidance documents will require an assessment of their socio-economic and environmental impacts (the sustainability appraisal). Plans which require a sustainability appraisal are:
- Regional Spatial Strategies (RSS) and revisions.
 - Local Development Documents (LDD including Minerals and Waste LDDs) and revised Development Plan Documents (DPD).
 - Supplementary Planning Documents (SPDs).
- 1.1.3 The sustainability appraisal of the Cumbria Draft Wind Energy Supplementary Planning Document (WE SPD)² must meet the requirements of the Strategic Environmental Assessment Directive (2001/42/EC)³. This Directive, commonly referred to as the SEA Directive requires the assessment to be centred around and measured against a clear set of evidence or baseline data.
- 1.1.4 The purpose of sustainability appraisal (SA) is to promote more sustainable development by checking and testing a plan for the quality and robustness of its environmental, social and economic content. The SA informs the plan of how it can improve its 'sustainability score' by providing a series of recommendations based on the performance of the plan when measured against a series of predetermined sustainability objectives.
- 1.1.4 Sustainability appraisal must be closely linked with the plan making process, be iterative and help shape the plan to be more sustainable. The idea behind sustainability appraisal and strategic environmental assessment is that if a plan or guidance document can provide more sustainable policy direction or advice the development that the plan is guiding should inherently become more sustainable. Project level environmental assessment has existed for a long time but with sustainability appraisal much of the unsustainable development that previously 'slipped through the net' might be avoided altogether through more sustainable policy making.
- 1.1.5 This sustainability appraisal has been carried out using the Cumbria Sustainability Framework. The framework tests the WE SPD against 16 sustainable development objectives relating to potential effects of the guidance on environmental, social, economic and resource issues. The SA does this by comparing the WE SPD objectives with that of the SA, assessing the likely effects of the guidance against the 16 objectives, predicting the effects against the baseline and measuring performance against a series of indicators. The guidance will then be monitored against these indicators to keep a check on performance of the WE SPD and to assess any impacts.
- 1.1.6 The following report sets out the first two stages of sustainability appraisal, the scoping and assessment stages. Recommendations are provided to make the WE SPD more sustainable. There is then an opportunity to amend the WE SPD in the light of these recommendations. Following this report, further assessment will be made of any significant changes to the WE SPD as part of establishing the movement towards more sustainable wind energy guidance the alignment with the SA framework.

1.2 Summary of the likely significant effects of the WE SPD

- 1.2.1 One of the key roles of the sustainability appraisal is to establish what impacts the WE SPD might have on the environment, society and the economy in Cumbria. To do this the document is assessed and appraised against the Cumbria Sustainability Framework. This framework essentially consists of 16 sustainability led objectives. For an in depth explanation of this framework refer to **section 4.5** of this report.
- 1.2.2 The initial scope of the WE SPD was guided by the recommendations of the Cumbria Joint Structure Plan Examination in Public (EIP) and the scope of the original wind energy SPG (1997). The result was a focus on the landscape and visual impacts of wind energy development.
- 1.2.3 The clear but narrow focus of the WE SPD obviously affected how well the guidance performed against the 16 varied sustainability objectives. **Section 6.0 and 7.0** and **Appendix 7 and 8** of this report provide a detailed analysis of how well the WE SPD accords with the sustainability framework but in summary these are the key findings:
- The WE SPD performs most strongly against objectives relating to landscape and visual impact.
 - The WE SPD performed relatively well against objectives relating to air quality and climate change.
 - The WE SPD performed relatively well against objectives relating to public participation.
 - The WE SPD performed less well against objectives related to the water environment.
 - The WE SPD performed less well against objectives related to biodiversity.
 - The WE SPD performed less well against objectives related to soil quality and sustainable resources and waste management.
 - The WE SPD generally performed less well against the social objectives.
- 1.2.4 Due to the interrelationship and integrated nature of many of the factors being assessed under the 16 SA objectives a key recommendation of the sustainability appraisal is that the scope of WE SPD be broadened to include a wider range of topic areas. In particular it was recommended that the guidance should seek to provide a more robust direction on biodiversity, the water environment, the impact on the local economy, skills education and training, and natural resource management.

1.3 Statement on the difference the process has made to date

- 1.3.1 Stage A (Scoping) of the sustainability appraisal provided an early indication of how well the WE SPD aligned with the sustainability framework. This compatibility test gave a direction on how the WE SPD could be redrafted to offer developers wider and more detailed guidance to allow them to design and plan for more sustainable wind energy developments.
- 1.3.2 Following the early recommendations set out in the Scoping Report the WE SPD would be redrafted whilst the sustainability appraisal of the original document continued. Changes to the WE SPD will be reappraised during the next stage of the appraisal process. This re-testing of the guidance will give an indication of where the WE SPD has improved to better accord with the sustainability objectives.
- 1.3.3 The fact that the scope of WE SPD has already been reviewed in response to the Scoping Report demonstrates the function of the sustainability appraisal and shows

how it can influence the documents content. As more detailed recommendation flow out of the later stages of the appraisal, the WE SPD will continue to be refined to provide more sustainable guidance.

1.4 How to comment on the report

- 1.4.1 The WE SPD sustainability report is available for consultation with interested parties and the general public for a period of six weeks from 30 October 2006 to 8 December 2006. All comments must be received no later than 4pm on 8 December 2006.
- 1.4.2 All comments and feedback will be taken into account during the next stages of the sustainability process. A paper copy is available for inspection at County Offices, Kendal and in Cumbria County Council main libraries and information centres.
- 1.4.3 Copies have been issued to the 4 statutory consultees, the district councils and the national parks as well as the lists of specific and general consultees referred to above.

Comments on this Sustainability Report should be sent to:

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2.0 Appraisal Methodology

2.1 Approach/structure adopted for the SA

- 2.1.1 The Sustainability Appraisal is being carried out in accordance with guidelines issued by the Office of the Deputy Prime Minister, the SEA Directive and the requirements of the Strategic Environmental Assessment Regulations (2004)⁴ which gave the SEA Directive legislative effect in the UK.
- 2.1.2 The Sustainability Appraisal process can be broken down into five stages:

A: Stage A of the sustainability appraisal process involves 'setting the context and objectives, establishing the baseline and deciding on the scope'. In detail, this involves:

- Identifying other relevant plans and policies programmes and sustainability objectives.
- Collecting baseline information.
- Identifying sustainability issues and problems.
- Developing the sustainability appraisal framework.
- Consulting on the scope of the sustainability appraisal.

B: Developing and refining options and assessing effects. This stage involves testing the SPD objectives against the SA framework that was developed in Stage A. It also requires predictive analysis and evaluation of the likely

effects of the SPD, mitigation measures for any adverse effects predicted, proposals to maximise positive effects and proposals for monitoring the significant likely effects of the SPD.

C: Preparing the sustainability appraisal report.

D: Consultation on the preferred options of the SPD and the SA report. This stage involves the final SA report that was developed in Stage C. Any significant changes that need to be made as a result of consultations will be appraised before the Supplementary Planning Document and the Sustainability Appraisal are submitted to the Secretary of State.

E: Monitoring the significant effects of implementation of the SPD. This involves finalising the monitoring programme and responding to any significant adverse effects of the SPDs at an early stage.

2.2 When was the SA carried out?

- 2.2.1 The appraisal began at the end of 2005 with initial meetings between the appraiser and the WE SPD planners. Between January and February 2006 the Scoping Report⁵ was written, consulted on internally and published as a draft document for consultation. The wider, statutory consultation period on the draft Scoping Report was held between 13 February and 20 March 2006. Comments received were then collated and assessed during the final week of March before the draft Scoping Report was reviewed in light of the representations and updated with a short supplementary report. The two documents read in conjunction effectively became the final Scoping Report and this was completed by the middle of April 2006.
- 2.2.2 Stage B of the appraisal process, developing and refining the options and predicting effects⁶ was written during May and June.
- 2.2.3 Stage C, this report was written throughout July 2006.

2.3 Who carried out the SA?

- 2.3.1 The sustainability appraisal is being carried out internally by Cumbria County Council's Sustainability Team. The Sustainability Team does not form part of the County Council's Strategic Planning Team and therefore provides an impartial viewpoint and approach to the appraisal process.
- 2.3.2 The Sustainability Team is not directly involved with formulating planning policy or planning guidance for the county but is charged, as part of its remit to provide an internal consultancy service for carrying out sustainability appraisals on County Council plans, policies and programmes that require appraisal under the SEA Directive.
- 2.3.3 Within the Sustainability Team there is a depth of knowledge of the appraisal process having carried out sustainability appraisals of the Cumbria Joint Structure Plan, three Cumbria Community Strategies and managed the Strategic Environmental Assessment of the Local Transport Plan for Cumbria.
- 2.3.4 The Sustainability Team also devised the Sustainability Appraisal Framework and objectives for Cumbria that has been agreed by the four statutory consultees (Environment Agency, Countryside Agency, English Nature and English Heritage) as well as the District Authorities in the county and provides the basis for this appraisal.

2.4 Who was consulted, when and how?

- 2.4.1 The WE SPD currently sits against the County Structure Plan and informs the production of Local Development Frameworks (LDFs) across the county. Unlike LDFs the Structure Plan did not require a plan detailing how consultation would be carried out such as a Statement of Community Involvement (SCI) that would guide an LDF. The process by which consultation should be carried out on the SPD is guided by Regulation 16 of the Town and Country Planning (Local Development) (England) Regulations 2004⁷. Consultation in the case of the WE SPD sustainability appraisal is carried out in accordance with Regulation 16.
- 2.4.2 Regulation 16 makes it clear that the Sustainability Report that accompanies the SPD should also be subject to a formal consultation period. Also, through PPS12⁸ and the SEA Directive itself, there is a requirement to consult on the sustainability appraisal report at various stages of its production. Regulation 16 prescribes that the duration of a consultation period should be no shorter than 4 weeks and no longer than 6 weeks. In the case of the Scoping Report the consultation period lasted for 5 weeks. Consultation on the full sustainability report will last for six weeks. As mentioned above the consultation period on the draft Scoping Report was held between 13th February and 20th March 2006.
- 2.4.3 As well as consulting with the public, consultation on the SA has also involved a range of organisations including district councils, local strategic partnerships and neighbourhood forums.
- 2.4.4 In addition to the statutory consultation periods the County Council facilitated discussion with the 4 statutory consultees (English Nature, English Heritage, the Environment Agency and the Countryside Agency), the Lake District National Park and the 6 district councils on sustainability appraisal and the need for baseline data.
- 2.4.5 These discussions helped identify which organisations held relevant data sets and explored possible mechanisms for sharing data. The discussions also agreed the list of key sustainability issues and pressures affecting Cumbria and agreed a generic sustainability framework for use across Cumbria. The generic framework was then adapted for use in the WE SPD sustainability appraisal.
- 2.4.6 In addition to the 4 statutory consultees, the planning regulations also list a number of specific consultation bodies that must be consulted. These include regional planning bodies and regional development agencies along with the Strategic Rail Authority, the Highways Agency, telecoms, gas, electricity, water and sewage companies and the Strategic Health Authority.
- 2.4.7 Additional bodies are identified as possible consultees. This could include government departments, voluntary organisations, environmental groups, and a myriad of social and industry related groups. Consultation with these bodies at each stage of the sustainability appraisal process is at the discretion of the Council.
- 2.4.8 The following organisations were identified as specific consultation bodies:
- Carlisle City Council, Allerdale Borough Council, Copeland Borough Council, Eden District Council, South Lakeland District Council and Barrow Borough Council;
 - The Yorkshire Dales National Park Authority and The Lake District National Park Authority;
 - The North West Development Agency.
 - The North West Regional Assembly.

- 2.4.9 Cumbria County Council's Sustainability Team has compiled a list of environmental organisations to be consulted, along with wind energy professionals. Other companies and voluntary and social sector organisations which operate in Cumbria and may have an interest in the outcome were also identified for consultation.
- 2.4.10 It is intended that this document will also be posted on the county council's web site to enable public comment (<http://www.cumbriacc.gov.uk/planning>).

3.0 Background

3.1 Purpose of the SA and the SA Report

- 3.1.1 The purpose of sustainability appraisal (SA) is to promote sustainable development through the integration of environmental, social and economic considerations into the preparation of a plan or strategy.
- 3.1.2 There are a great many definitions of sustainable development. Here the term is used to describe a society in which social and economic progress are pursued in a way that does not damage the environment (both local and global) and positive action is taken to reduce and restore previous environmental damage caused by human activity. Underpinning this is a concern that future generations should inherit a healthier planet with sufficient resources available to support the world's populations.
- 3.1.3 Sustainability appraisal builds on earlier techniques of environmental appraisal which were developed to assess and mitigate the likely effects of a decision or a policy proposal on the environment. The important thing is to make the appraisal process part of the policy process so that the findings of the appraisal can shape the final version of the policy.
- 3.1.4 Sustainability appraisal broadens the appraisal process by adding social and economic assessment to the environmental assessment of a draft plan or developing programme. Again the aim is to use the assessment results to shape the final version of the plan or programme.
- 3.1.5 Appraisal involves identifying, quantifying, weighing up, and reporting on the pros and cons of each option. Since policies generally describe the state of things which will exist when the policy is put into effect, the appraisal process needs to contain a thorough analysis of the measures to be used to implement the policy.
- 3.1.6 A systematic appraisal ensures that the options are clearly laid out and assessed. This gives an assurance to the public that the policy and the way it is to be applied have been thoroughly thought out and leaves a clear record showing how the policy was formulated to be used by those responsible for monitoring and reviewing the policy at later date.
- 3.1.7 Sustainability appraisal needs to be part of the plan-making process and this is also the case when formulating guidance such as SPDs. It aims to promote sustainable development through better integration of sustainability considerations into the preparation and adoption of plans. There is no point in carrying out an appraisal after the plan has been finalised since the opportunity to shape the plan has been lost.
- 3.1.8 The Government takes the view that sustainability appraisals will help local planning authorities contribute to national policy objective of achieving sustainable development.

3.1.9 This SA report (Stage C in the overall SA process) draws together the findings of both Stage A and Stage B of the appraisal process, the scoping report and predictive assessment stages. By drawing this information together in one document it is possible to consult on the findings of the appraisal and provide background and context on the process as a whole.

3.2 Wind Energy SPD objectives

3.2.1 The Strategic Planning Team developed a number of draft WE SPD objectives to focus the purpose of the SPD. The draft WE SPD objectives are set out below:

- To provide clear, objective guidance to developers, professionals and the local community to facilitate the appropriate location of wind energy development (WED) in Cumbria.
- To maximise the potential of Cumbria to accommodate WED by guiding development to appropriate locations whilst ensuring that the key characteristics and quality of the county's landscapes are not adversely affected.
- To facilitate the appropriate location of WED in Cumbria to help reduce CO₂ emissions and mitigate climate change.
- To support Cumbria to benefit from the positive contributions of WED to the local economy.
- To enable Cumbria to make a positive contribution towards local, regional and national sustainability and renewable energy targets.

3.2.2 The draft WE SPD objectives have been tested against the draft sustainability objectives to determine whether or not the SPD objectives are likely to contribute to sustainable development in Cumbria or not. This compatibility analysis provides the 'plan-maker' with guidance on developing and amending strategic options for the WE SPD which follow sustainability principles.

3.2.3 This level of objective testing acts only as a broad indicator of whether or not the SPDs objectives are generally in line with the sustainability framework objectives. It is not intended to provide a detailed assessment of the sustainability of the SPD. The assessment of the content of the guidance is carried out later in the sustainability appraisal process.

3.2.4 In summary, the compatibility analysis demonstrated that whilst there is little conflict or incompatibility identified between the SPD and SA objectives there is potential to broaden the scope of the objectives and provide developers with clearer guidance on a wider range of sustainability issues. This raised the question about the overall scope of the SPD and whether it should be providing guidance that goes beyond the visual and landscape agenda.

3.2.5 For a full explanation of the compatibility analysis and the scoring matrix refer to the scoping report section 11.

3.3 Compliance with the SEA Directive/Regulations

3.3.1 The SA of the Wind Energy SPD has been carried out in accordance with the SEA Directive European Directive 2001/42/EC "on the assessment of the effects of certain plans and programmes on the environment".

- 3.3.2 The SEA Directive was given legislative effect in the UK through the Environmental Assessment of Plans and Programmes 2004 (the Strategic Environmental Assessment Regulations). Government guidance on meeting the requirements of the SEA was issued in September 2005.
- 3.3.3 The SEA Directive requires environmental considerations to be integrated into the plan-making process so that the environment enjoys a high level of protection and plans and programmes contribute to sustainable development. It introduces a broad consultation process as part of the environmental assessment. The final version of the plan must show how any environmental considerations identified as part of the assessment process have been dealt with and set out a monitoring programme to measure the effect of the plan's implementation on the environment. The monitoring process is included to trigger remedial action on unforeseen outcomes.
- 3.3.4 The Directive applies to a range of plans that includes land-use and spatial plans.
- 3.3.5 The Directive is quite specific and clearly sets out the how the environmental assessment should be carried out. Plans which fail to meet the requirements of the SEA Regulations may be challenged by third parties and their implementation delayed pending the outcome of an inquiry into the validity of the complaint.
- 3.3.6 The requirements to carry out a sustainability appraisal and an environmental assessment are distinct. However Government guidance on sustainability appraisal has been issued to enable sustainability appraisals to be carried out which meet the requirements of the SEA Regulations. Responsibility for ensuring that the sustainability appraisal meets the requirements of the SEA Regulations rests with the appraiser.
- 3.3.7 The key requirements of the SEA Directive are set out in **Appendix 2**.

4.0 Sustainability objectives, baseline and context

4.1 Links to other policies, plans and programmes and sustainability objectives

- 4.1.1 When preparing a Supplementary Planning Document it is necessary to identify other plans and policies which relate in some way to the SPD being prepared and to establish any policy influences being directed at the development document in question. In this way the 'plan-maker' can ensure the plan/guidance being prepared reflects policy direction emanating from Government, from the EU, from the wider international community or indeed from sources nearer home. A thorough review of relevant plans, policies and programmes can simplify the plan-makers task by ensuring policy harmony at the outset and help avoid potential conflicts with other programmes.
- 4.1.2 Equally the plan-maker would wish to ensure that the plan/guidance contributed to sustainable development and therefore it is necessary to establish sustainability issues or objectives that can be taken into account in the preparation of the plan.
- 4.1.3 The SEA Directive (Annex 1) is quite clear on the need to identify relevant plans and environmental protection objectives and ensure that these are fully considered during the plan-making process.
- 4.1.4 International conventions and protocols were not ignored but not reviewed directly. This was done to save time and avoid repetition. In the majority of cases the EU and indeed the UK government are signatories to most international agreements on environmental action and this is invariably reflected in European legislation or communications and in many cases UK government strategy.

- 4.1.5 The review of relevant plans is expanded at **Appendix 3** to provide a brief summary of the plan or programme or relevant piece of legislation. This makes clear the link with the WE SPD and identifies any external policy direction with which the WE SPD needs to respond. Following on from this, **Appendix 3** also identifies policy issues for both the WE SPD and helps identify appropriate objectives around which to build the sustainability appraisal framework.
- 4.1.6 Other influences on the objectives to be included in the sustainability framework include the Profile of Key Issues and Pressures Affecting Cumbria. This profile (shown at **Appendix 4**) gives some measure of social, economic and environmental concerns in Cumbria and helps identify sustainability objectives for inclusion in the sustainability framework.

4.2 Description of the social, environmental and economic baseline characteristics and the predicted future baseline

Characterising Cumbria

- 4.2.1 Cumbria is the second largest county in England. Its boundaries enclose 6,810km² which represents 48% of the land area of the North West region. The WE SPD guidance area includes the whole of Cumbria except that part covered by the Yorkshire Dales National Park. The WE SPD does include the Lake District National Park.
- 4.2.2 The total area covered by the WE SPD is approximately 6000km². The resident population of the plan area is 480,000 (mid year 2004 estimate).

Deprivation

- 4.2.3 The Index of Multiple Deprivation (2004) measures deprivation across a series of factors and combines these into a single weighted deprivation index. The areas measured are income deprivation (22.5% weighting), employment deprivation (22.5% w), health deprivation and disability (13.5% w), education skills and training (13.5% w) barriers to housing and services (9.3% w), living environment deprivation (9.3% w) and crime (9.3% w).
- 4.2.4 **Map 1** in **Appendix 9** illustrates the Index of Multiple Deprivation in Cumbria. This measures deprivation in small areas of about 500 households. The higher the score the greater the level of deprivation. This is shown by the use of darker shading.
- 4.2.5 Looking at the 354 district council areas in England, Barrow stands out as the 29th most deprived district. Copeland is the 84th most deprived while Allerdale and Carlisle rank 105 and 108 respectively. Eden and South Lakeland districts sit more comfortably at the other end of the deprivation spectrum with average scores of 200 and 258 respectively.
- 4.2.6 The type of deprivation can be identified within districts, for example deprivation in Allerdale relates to employment, health and disability and barriers to services. In Barrow there are significant issues of deprivation relating to employment, health and disability and living environment. In Eden and South Lakeland deprivation relates solely to barriers to services. This is a significant issue in Eden.

Health and Lifestyles

- 4.2.7 In 2003, the 3 Primary Care Trusts that cover Carlisle, Eden and west Cumbria carried out a health and lifestyle survey (71.2% response rate) of 25,504 people registered with a GP in North Cumbria. Again while not an exact match this area broadly equates to the plan area. Survey results show that: 8% report their health

as bad or very bad; 54% of people are overweight or obese; 40% consume less than 5 pieces of fruit or vegetables a day; 10% have a sedentary lifestyle; 27% of men and 17% of women drink in excess of recommended alcohol levels; 16% of men and 9% of women over 65 reported suffering a heart attack; 17% of the population reported shortness of breath with wheezing; around 18% may have mental health problems; and in rural area difficulty is experienced with access to services (A & E, GPs, and food stores selling fresh fruit and vegetables).

Housing

- 4.2.8 In Cumbria 34.9% of people own their homes outright while a further 36.9% are buying their homes with a mortgage or loan. 27.8% of people rent their homes either from local councils, registered social landlord or private landlords. An estimated 0.36% of the population is thought to be homeless while 4.3% are living in homes which fail to meet the decent homes standard.
- 4.2.9 There are a number of housing issues in Cumbria. Affordable housing is a particular problem in parts of Cumbria. Research has shown that South Lakes and Eden have a worse affordability gap than anywhere else in the North of England. They also have the second (South Lakes £179,000) and fourth highest (Eden £169,500) median house prices in North West England.
- 4.2.10 Second homes ownership is thought to contribute to affordability. There are 7,374 second homes of which 4,136 are in and around the Lake District National Park while the rest are located in the Eden Valley and the Solway Coast Area of Outstanding Natural Beauty.

Employment and Earnings

- 4.2.11 In the Plan area 125,000 people are employed full-time with a further 49,000 employed part time and 27,402 people self employed. In Cumbria 4.4% of the population claims incapacity benefit.
- 4.2.12 Unemployment in Cumbria during May 2006 is running at 2%. Male unemployment is 3.2% and female unemployment is 1.1%. Excluding the National Park areas, 5,587 people (2.2%) were registered as unemployed during May 2006.
- 4.2.13 Average earnings exist at ward level and range from £17,507 to £39,308. In recent years gross weekly earnings for men and women in full time employment have been lower in Cumbria when compared to both the North West Region and the UK. However in 2005 gross weekly pay for male full time workers in Cumbria exceeded the North West average by 3.0% and all full-time workers in Cumbria earned 97.3% of the national average gross weekly wage. Males in Cumbria also earned £128.30 per week more than full-time women.

Education and Skills

- 4.2.14 Analysing educational attainment within the population is difficult because of the range of qualifications and the data collection systems used. In addition levels of work based competence (vocational skills and knowledge) are equated to academic qualifications. Government data on this should therefore be regarded as illustrative. In Cumbria an estimated 32% of the population aged 16 – 74 is without qualifications of any kind while a further 38% has 5 GCSEs or equivalent vocational qualifications (levels 1 and 2). A further 6.5% of the population is educated to A level standard or vocational equivalent (level 3) while an estimated 16% is educated to degree level or vocational equivalent (levels 4 and 5). The qualification level of the remaining 7.5% of the population is unclear.

Employment by Sector

- 4.2.15 In Cumbria, excluding the National Parks, the retail sector is the largest employer with 37,643 employees. Manufacturing is the second largest employer with 35,043 employees while 'real estate' employs 19,135 (note: this sector includes property, rental of property, cars and machinery, computers, legal and accountancy, advertising and a number of sundry activities). Health and social work is the third largest employer with 24,567 employees.
- 4.2.16 Altogether Cumbria has more than 200,000 employees (2006 data). Construction employs 9,485; transport employs 9,347; hotels employ 13,742; public administration and defence employ 8,651 while schools and higher education employ 14,890. Some smaller sectors have not been listed nor do the figures shown take account of the self-employed.

The Local Economy

- 4.2.17 Overall the state of the economy is not buoyant. Cumbria contributes about 6% of the economic output of the North West region (cf. Lancashire generates around 20%, Merseyside 16% and Cheshire 18% respectively, while Greater Manchester contributes some 40%).
- 4.2.18 Cumbria's economic performance (gross value added per capita) has declined from 92% in 1995 to 77% in 2001. This makes it the worst performing economic sub region in the UK. In part this reflects some refinement of the statistics but in real terms is due to contraction in manufacturing and agriculture.
- 4.2.19 Another factor which contributes to the lack of growth in the Cumbrian economy is the comparatively large numbers of small companies: 83% employ less than 10 people. This is associated with competitive weakness arising from a combination of factors: limited capital and management skills; limited growth ambitions; restricted markets; low investment in training and limited promotion opportunities for staff.

The Environment

- 4.2.20 Cumbria's environment is diverse. Its unique topography has been shaped by the passage of time and climatic conditions acting on the underlying rock structures. These processes, including melting glaciers, have influenced soil, vegetation and wildlife distribution. Human activity has also been affected by topography. This can be seen in the pattern of settlements and road and rail links which in the main skirt the central High Fells of the Lake District.
- 4.2.21 Penrith weather data (169 metres above sea level) averaged for the period 1971 to 2000, gives a maximum daytime temperature of 12.1°C, around 58 days of air frost each year, with 1243 hours of sunshine each year, and 149 days of rainfall providing 929 mm of rain.
- 4.2.22 Cumbria is made up of distinct character areas (see **Map 10**). The Solway Basin has stretches of sandy and pebble beaches backed by dunes and raised beaches along the Irish Sea. These give way to the inter-tidal mud-flats of the Solway Firth. Other features include Victorian seaside resorts, raised peat bogs, and narrow country lanes winding through gently, undulating pastureland with little tree cover.
- 4.2.23 The West Cumbria Coastal Plain stretches south from Maryport to Barrow in Furness. The main towns abut areas of industrial activity or redundant industrial land. The coastline contains a mixture of mudflats, shingle and pebble beaches interspaced with smaller areas of dunes, sandy beaches and sandstone cliffs. Inland undulating

or flat pasture with hedgerows and some tree cover is the dominant feature. Wetlands and herb-rich meadows exist along with river valleys with some semi natural ancient woodland. Elsewhere there are extensive areas of estuary with a range of inter-tidal habitats.

- 4.2.24 The River Eden and its tributaries dissect the Eden Valley. These river valley landscapes sit amidst open, rolling mixed farmland, neatly delineated by hedgerows and drystone walls. Broadleaved woodland is common and settlements are generally constructed from red sandstone, although around the fringes, limestone construction is the norm. On either side of the valley foothills, unimproved grassland and moorland merge into the wilder Cumbrian High fells and the North Pennines.
- 4.2.25 The Orton Fells lie within a line drawn south east from Penrith to Kirkby Stephen, then west to Tebay, north to Shap and northwest to Askham.
- 4.2.26 The Orton Fells are distinguished by moorland with extensive areas of limestone pavements, rock outcrops, scree and calcareous grassland. There are few trees and few deep flowing rivers or streams. Sheep are reared on the higher, rough pastures while lower down grass is grown for hay, silage and winter grazing. Dwellings and field boundaries are built with limestone.
- 4.2.27 The Howgill Fells form a heart shape range of rounded hills bounded by Tebay, Sedbergh and Ravenstonedale. Only the northern half of the Howgills falls in the WE SPD area. The landscape comprises ridges and valleys, with steep scree slopes, occasional waterfalls and crags, open moorland with rough grass and bracken, few trees, few settlements all of which combines to give a sense of wilderness. Farming is dominated by sheep with cattle rearing confined to the lower slopes.
- 4.2.28 The Cumbrian Low Fells are noted for undulating pastureland, areas of woodland and managed estates which give a parkland appearance. Settlements are again built of limestone.

Biodiversity

- 4.2.29 Cumbria is rich in habitats and species. Within the Solway Basin, key habitats are saltmarsh and grazing marsh, sand dunes, vegetated shingle, lowland raised mire, valley woodlands, rivers and hay meadows. The Solway Estuary attracts wintering and passage waders and wildfowl many of which use the saltmarsh and nearby unimproved grassland to roost and feed. Internationally important species include pink footed goose, the barnacle goose, oystercatcher, knot, bar-tailed godwit, curlew and redshank. Species of principal importance include the Water Vole, European Otter, the Brown Hare, Pipistrelle Bat, Red Squirrel, Skylark, Nightjar, Linnet, Reed Bunting, Corn Bunting, Spotted Fly-catcher, Tree Sparrow, grey partridge, Bullfinch, Natterjack Toad, Great Crested Newt, Marsh Fritillary Butterfly and the Square-spotted Clay Moth. Many other species of birds and bats have been recorded in the Solway Basin. Other species of interest, many of which are considered to be nationally scarce include numerous water and ground beetles, weevils, dragonfly, a variety of flies, grasshoppers, moths, spiders, bugs, liverworts, mosses and vascular plants.
- 4.2.30 The West Cumbrian Coastal Plain also has saltmarshes around the Duddon Estuary, at Drigg and at Walney Island. Other important habitats include sand dunes, dune grassland, dune heath, vegetated shingle, coastal grasslands, St. Bees Head sea cliffs, rivers and floodplains, unimproved hay meadows, tarns and ponds, semi-natural woodland, hedgebanks, lowland and raised mires. Principal bird species and amphibians are the same as those listed for the Solway Basin. Again there are

numerous nationally scarce species of beetle, crustacean, moth, and assorted insects, mosses and vascular plants. Two distinctive species are present: *Cicendela hybrida* a ground beetle and *Margaritifera margaritifera* a freshwater mussel.

Eden Valley

- 4.2.31 The biodiversity interest centres on the aquatic environments of the River Eden, its tributaries and adjacent habitats. The geology of the area gives the Eden mid range nutrient status which results in a high diversity of aquatic plants. Riparian habitats include gorge woodland with varied tree and shrub cover dependant on soil type and moisture levels. South of Lazonby there is a broad floodplain but with few habitat features normally associated with floodplains with the exception of the Salkeld area where oxbow lakes, ponds, swampy woodland and old channels can be found. Near Ormside there is large area of floodplain comprising wet grassland, marsh and pools which attract wintering and breeding wildfowl.
- 4.2.32 Other principal habitats include basin and raised mires, many of which are designated as SSSIs, remnant lowland heathland which provides one of the few suitable habitats for the nightjar, lowland grassland (species rich, traditionally managed), wet or seasonally inundated meadows, hay meadows and hay meadow fragments, and away from the river banks areas of semi natural woodland, particularly those with rich shrub layers.
- 4.2.33 Principal vertebrate species are broadly similar to those found in Solway Basin and the West Cumbria Coastal Plain. Additional Principal species include the Bittern, the Wryneck, Marsh Clubmoss and a moss (*Fissidens exiguus*), Marsh fritillary and White Clawed Crayfish. Absent from the area is the Natterjack Toad. Again there are numerous vascular plants, mosses.

The High Fells, Orton Fells, The Howgills and parts of the South Cumbria Low Fells

- 4.2.34 The High Fells are largely found within the Lake District National Park Boundary. Differing geology across the fells gives rise to distinct shape and character across the National Park. The fells have a great many and varied habitats from acid grassland, tarns and other water bodies, dry and wet heath, alpine and boreal heath, blanket bog mixed and oak woodland. Remnant woodlands can be largely be found on lower slopes or in gills. Gills are important for mosses, liverworts and ferns.
- 4.2.35 The Orton Fells is a limestone ridge characterised by limestone pavements. Drift deposits allow heath and acidic grassland to become interspaced with the limestone outcrops. Lime rich springs and flushes support rare plant and invertebrate communities while Sunbiggin Tarn supports aquatic and fen communities. Other important habitats include unimproved lowland meadows and remnant woodlands around gills.
- 4.2.36 Vegetation cover on the Howgill Fells is largely acidic grassland with expanses of bracken on lower slopes and remnant areas of heather. Springs and flushes on lower slopes add diversity of habitat and support comparably more plants than nearby grassland. Again remnant woodlands can be found on lower slopes or in gills. Gills are important for mosses, liverworts and ferns.
- 4.2.37 South Lakes Low Fells are associated with extensive semi-natural and coniferous woodland, improved grassland and large areas containing a mixture of grassland, heath, mire and juniper scrub.
- 4.2.38 Other maps in **Appendix 9** give further context to Cumbria' environmental assets and landscape character such as lakes and reservoirs, ancient woodlands, geological

and geomorphological sites, AONBs, World Heritage Sites, special protection areas and RAMSAR sites.

Baseline Data

- 4.2.39 The introduction of the Strategic Environmental Assessment (SEA) Directive brought with it the need for assessment and appraisal to be made against a strong, accurate and robust evidence base. The establishment of an evidence base allows predictive analysis of potential impacts of the policies contained in the 'plan' being assessed, followed by an evaluation of policy impacts and the development of monitoring and mitigation measures. This is the 'hub' of SEA/SA.
- 4.2.40 Cumbria County Council has developed a sustainability appraisal framework based on best national practice and tested the fitness of purpose of the framework in carrying out appraisals on LDF's and community strategies. This framework has now been adopted by all district councils in Cumbria as the basis for sustainability appraisal and agreed following consultation by the 4 statutory consultees. The framework has been modified to ensure it fully reflects the requirements of the SEA Directive.
- 4.2.41 The framework contains 16 sustainability objectives. Baseline data has been gathered, where available for all 16 objectives.
- 4.2.42 Baseline data for the appraisal of the WE SPD has been gathered from a variety of sources including the County Council's Intelligence and information Team, various websites, the 4 statutory consultees (Environment Agency, Countryside Agency, English Nature and English Heritage) and a number of different organisations.
- 4.2.43 The data is used to provide a baseline of the environmental, social and economic characteristics of the area influenced by the WE SPD. The information provides the basis for predicting and monitoring effects and helps to identify sustainability problems/gaps and alternative ways of dealing with them later in the SA process. Sufficient information is required about the current and likely future state of the geographic area covered by the WE SPD to allow the documents effects to be adequately monitored.
- 4.2.44 Indicators have been identified to allow the performance of the plan to be monitored (**Appendix 5** sets out baseline data and indicators where available). Once a set of indicators has been agreed, data can be collected based on each indicator. Key indicators for the WE SPD are set out in **Table 1** below. Some of this information is available and some information will be gathered as the SA process continues. The following questions taken from Government guidance on SA, have helped gauge the level of detail required in each data set:
- How good or bad is the current situation? Do trends show that it is getting better or worse?
 - How far is the current situation from any established thresholds or targets?
 - Are particularly sensitive or important elements of the receiving environment affected (e.g. people, resources, species, habitats)?
 - Are the problems reversible or irreversible, permanent or temporary?
 - How difficult would it be to offset or remedy any damage?
 - Have there been significant cumulative, synergistic or indirect effects over time? Are there expected to be such effects in the future?

4.2.45 Baseline data trends are identified where available and some constraints and notes are added in the final column of **Appendix 5** explaining where data originates from and any potential limitations on the data.

4.3 Main social, environmental and economic issues and problems identified

4.3.1 In Cumbria, the County Council's Sustainability Team had already identified a profile of key issues and pressures affecting Cumbria in 2002 and had used this list as the basis for developing a set of sustainability objectives. These objectives were adopted by the County Council in 2004 and are used to guide County Council policy development. These sustainability objectives also provided a basis for an earlier version of a sustainability appraisal framework.

4.3.2 The original sustainability appraisal framework has been used to carry out sustainability appraisals of the Cumbria and Lake District Joint Structure Plan 2001-2016 and sustainability appraisals of the Barrow, South Lakes and West Cumbria community strategies. During these appraisals the sustainability framework has been refined in discussion with participants in the appraisal process and also modified in the light of practical experience.

4.3.3 The advent of the SEA Regulations 2004 and early draft Government guidance on conducting sustainability appraisals to ensure that they met the requirements of the SEA Directive led to the establishment of a sustainability group. Membership was drawn from the 4 statutory consultees, the 6 district councils, the Lake District National Park Authority and the County Council.

4.3.4 These discussions explored areas of mutual interest and possible joint working on sustainability appraisals and the availability of baseline data.

4.3.5 The existing set of key issues and pressures affecting Cumbria originally developed by the Sustainability Team was re-examined by the group and by other colleagues in the County Council's Planning and Economic Development units. As a result of this consultation process the Profile of Key Issues and Pressures was added to and refined by drawing on the detailed knowledge of the consultees. The list was further widened to specifically include a new section on resources.

4.3.6 The profile of key issues and pressures affecting Cumbria is shown at **Appendix 4**.

4.3.7 The profile of key issues helps demonstrate how interrelated the different sections of the scoping report are since the key pressures relate to sustainability, help shape the sustainability framework and add to the size of the evidence base for policy-making. This led to the emergence of a new draft set of sustainability objectives:

- To make more affordable housing available.
- To improve access to facilities.
- To create safer communities.
- To improve education opportunities.
- To retain young people in Cumbria.
- To widen employment opportunities.
- To diversify the economy.
- To develop growth sectors within the local economy.
- To protect and enhance species and habitats.

- To improve the quality of water resources.
- To adapt to climate change.
- To protect designated landscapes.
- To conserve the character of the built environment.
- To protect people from floods.
- To minimise waste and recycle more.
- To secure modern sustainable waste management facilities.
- To sustainably manage mineral resources.
- To increase the supply of recycled material used in lieu of mineral resources.

4.3.8 This new draft set of sustainability objectives was fed into the sustainability appraisal framework development process.

4.4 Limitations of the information and assumptions made

4.4.1 There have been a number of difficulties in accessing, collating, presenting relevant data sets: data sets available to the council do not always match the requirements of the SA; data can be completely unavailable, unavailable at the right scale, out of date, unreliable, partial or biased. Because of this, decisions have been taken on the quality of data gathered and questions have been asked such as: should the data set be rejected; used with a cautionary note; or new information sought to remove uncertainty and fill data gaps?

4.4.2 Whilst it has been possible within the appraisal timeframe to gather some baseline data, gaps remain. Government guidance on carrying out sustainability appraisals encourages a pragmatic approach saying that whilst data must be robust and fit for purpose, when gathering baseline data a realistic approach should be taken. The overall SA process should not be delayed because of difficulties in obtaining certain data sets. Data gaps are acknowledged but the SA process will continue. SA is an iterative process and the baseline database will evolve over time, be constantly updated and be in place for any future review or update of the SPD. Monitoring regimes that will be put in place through Stage E of the SA process will further identify data requirements and act as a mechanism for obtaining missing data sets.

4.5 The SA Framework, including objectives, targets and indicators

4.5.1 The County Council's Sustainability Team developed a sustainability appraisal framework which had been tried and tested in the sustainability appraisal of land use plans and community strategies. The sustainability group made up of the district councils, the LDNPA, English Nature, English Heritage, the Environment Agency, the Countryside Agency and the County Council took this appraisal framework as a starting point and compared it to the draft list of new sustainability objectives which came out of the key pressures exercise.

4.5.2 This led to a composite framework being developed which included new objectives thrown up by the key pressures exercise. Further discussion on the range and meaning of the list of sustainability objectives led to further refinement of the list of objectives and their precise wording.

4.5.3 Each objective was originally accompanied by a series of questions which were designed to guide the appraisal process and allow the appraiser to test whether or

not the plan was likely to contribute to a particular objective. These were modified in the light of the consultation process and the knowledge and experience of the members of the group.

- 4.5.4 In developing the revised framework, care was taken to ensure that the SEA Directive’s environmental objectives were also comprehensively included.
- 4.5.5 This consultation process has led to the adoption by the Cumbrian local authorities and the Lake District National Park of a robust sustainability appraisal framework which has the approval of the 4 statutory consultees and is based on a tried and tested methodology. This new sustainability appraisal framework is to be used as the basis for sustainability appraisals across Cumbria.
- 4.5.6 While this framework is generally regarded as a comprehensive framework that can be applied ‘off the shelf’ to carry out appraisals, clearly some plans are of a specialist nature and therefore further refinement may be necessary to tailor the framework to a specific plan. In the case of the WE SPD the general framework has been altered, not significantly, but sufficiently to increase its suitability for the task of appraising the WE SPD. The revised sustainability appraisal framework which will be used in the appraisal of the WE SPD is shown in **Appendix 1**.

WE SPD Key Indicators Set

- 4.5.7 **Appendix 5** sets out a comprehensive list of baseline data and indicators. Whilst it is important to have a broad range of baseline information some of the information listed provides only contextual data that helps to characterise Cumbria and provide an indication of the environmental, societal and economic conditions that the WE SPD is operating within.
- 4.5.8 **Table 1** below draws from the data in **Appendix 5** but shows only the indicators considered to be the key indicators for the WE SPD. These are indicators that should be monitored and used as a ‘yardstick’ and gauge of the WE SPD performance over time against the 16 SA objectives – the WE SPD Key Indicator Set.

Table 1: WE SPD Key Indicator Set	
SA Framework Objectives	Indicator
SP1: To increase the level of participation in democratic processes (SEA: Population)	Number of local liaison committees in operation.
	Number of Cumbrians who submitted a written response to the WE SPD Consultation.
SP2: To improve access to services, facilities, the countryside and open spaces (SEA: Population)	No Key Indicators at this time – indicators in development.
SP3: To provide everyone with a decent home (SEA: Material Assets)	No Key Indicators at this time – contextual indicators only. Objective largely outside the scope of the WE SPD.
SP4: To improve the level of skills, education and training (SEA: Population)	To increase the number of environmental education programmes in operation at wind energy sites.
	To increase the number of visits by wind energy developers to schools/business.
SP5: To improve the health and sense of well-being of people (SEA: Human Health)	To reduce the % of nuisance complaints received relating to wind energy sites.
SP6: To create vibrant, active, inclusive and open-minded communities with a	To increase the % of residents who are satisfied with their neighbourhood as a place to live.

strong sense local history (SEA: Population)	
EN1: To protect and enhance biodiversity (SEA: Biodiversity, flora and fauna)	Loss of UK and Cumbria BAP species and area of BAP habitat (and species and habitats named in the Birds and Habitats Directives).
	Area lost from non-statutory designations, such as County Wildlife Sites.
	Area of land lost from Sites of Special Scientific Interest.
	Area of land lost to wind energy development immediately adjacent to designated areas and sites with protected and priority species.
	Area of land created to support biodiversity as a result of wind energy development.
EN2: To preserve, enhance and manage landscape quality and character for future generations (SEA: Landscape)	Number of wind energy developments located within designated landscape areas (National Parks and Areas of Outstanding Natural Beauty).
	Number of wind energy developments located adjacent to designated landscape areas.
	Number of wind energy sites with significant visibility from designated landscapes.
	Loss of key landscape features as defined in the Cumbria Landscape Classification and Cumbria Landscape Strategy.
EN3: To improve the quality of the built environment (SEA: Cultural Heritage)	% of local materials supplied for construction phase of wind energy development.
	Number of historic sites in each category sited within or adjacent to a wind energy development.
	Grade I, II* and II listed buildings at risk sited within or adjacent to a wind energy development.
	Scheduled monuments at risk sited within or adjacent to a wind energy development.
	Registered parks and gardens at risk sited within or adjacent to a wind energy development.
	Number of conservation areas adjacent to a wind energy development.
	Number of traditional buildings renovated/reused as a result of wind energy development.
NR1: To improve local air quality and reduce greenhouse gas emissions (SEA: Air) (SEA: Climatic Factors)	Estimated emissions CO ₂ (tonnes) from wind energy development construction phases.
	Estimated emissions CO ₂ (tonnes) offset from wind energy development.
NR2: To improve water quality and water resources (SEA: Water)	Number of water pollution incidents caused by wind energy development.
	Number of wind energy development sites located within groundwater protection zones.
	Number of wind energy developments permitted in flood risk zones.
	Amount of high quality agricultural land lost through wind energy development.
NR3: To restore and protect land and soil (SEA: Soil)	Number of Wind energy developments located on brownfield land.
	Number of soil contamination incidents as a result of wind energy development.
NR4: To manage mineral resources sustainably and minimise waste (SEA: Air) (SEA: Climatic Factors) (SEA: Soil) (SEA: Water)	% of renewable energy generated from waste in Cumbria.
EC1: To retain existing jobs and create new employment opportunities (SEA Population) (SEA Material Assets)	Numbers of new or extended wind energy developments.
	% People aged 16-74 Unemployed.
	% People employed in industry.
	Number of new wind energy related business created (focused on those created in high areas of unemployment).
EC2: To improve access to jobs (SEA Population) (SEA Material Assets)	% of people who travel to work by public transport.
	Value to the Cumbrian economy of new wind energy development.
EC3: To diversify and strengthen the local economy (SEA Population) (SEA Material Assets)	No of jobs created in the wind energy sector in Cumbria.

5.0 Wind Energy SPD issues and options

5.1 Main strategic options considered and how they were identified

- 5.1.1 The WE SPD has been developed in response to recommendations from the Examination in Public to the Cumbria Joint Structure Plan. This sought to ensure that guidance was available on the landscape and visual impacts of wind energy development during the transition from the old planning system of a Structure Plan and Local Plans, to the new planning system of a Regional Spatial Strategy (RSS) and LDFs. The guidance will support the development of policies in the LDFs and provide guidance to developers when determining the location and design of future wind energy proposals. The WE SPD will replace the existing statement of Supplementary Planning Guidance - Wind Energy Development in Cumbria.
- 5.1.2 The initial scope of the WE SPD was guided by the recommendations of the EIP and the scope of the original SPG. This focussed on the landscape and visual impacts of wind energy development. The WE SPD continues to focus mainly on landscape and visual impacts as these continue to be important in all areas of the County, are often the most controversial aspects of any wind energy proposal, and can be difficult to mitigate.
- 5.1.3 The document is being co-ordinated by Cumbria County Council and developed in conjunction with officers from each of the partnering local authorities. A Wind Energy Officers Group, comprising officers from each authority, has been set up to steer the development of the document. A Project Briefing on the WE SPD was developed setting out its objectives, scope and timescale for preparation. Consultation on this was carried out in February - March 2006 with over 100 stakeholders. Wider public consultation will be held in October - December 2006 on the draft WE SPD in accordance with each local authorities Statement of Community Involvement.
- 5.1.4 The review of the 1997 wind energy SPG began in 2004. At this time it was unclear whether supplementary planning documents would require a full sustainability appraisal through the UK interpretation of the SEA Directive. Given this uncertainty the formulation of the WE SPD continued and a Sustainability Appraisal was commissioned in December 2005 following Government advice.
- 5.1.5 The Sustainability Appraisal of the WE SPD was commissioned at a time when the WE SPD was already significantly advanced. The 'development of options' stage was complete and the SPD had reached a working draft stage. The appraisal began early enough to shape certain aspects of the plan but the broad direction and remit of the SPD was in place. As a result there were no SPD options as such to assess. For this reason, the 'options appraisal' section of the WE SPD sustainability appraisal makes a direct comparison between a 'business as usual' approach (the 1997 WE SPG remains in place) and 'implementation of new guidance approach' (the new WE SPD is introduced). Both approaches are assessed against the 16 sustainability appraisal objectives.

5.2 Comparison of the social, environmental and economic effects of the options

- 5.2.1 The purpose of the options testing stage of the SA process is to provide a broad assessment of the different options against the SA objectives. Options testing is not intended to provide a detailed analysis of the likely performance of the options against the SA objectives, that is addressed later in the process. The options testing stage does not provide specific recommendations either, again that is provided later

in the process. **Appendix 6** sets out the full assessment of the two 'options'. The table is designed to give a direct comparison of the SPG and the WE SPD. The table notes the likely impacts, be they positive or negative, of the overall document against the 16 SA objectives. Performance over time is gauged by 'scoring' the likely impact of the guidance on the objectives over the short, medium and long term.

- 5.2.2 Information on the performance of the SPD is set out against each objective in **Appendix 7**. However, some interesting aspects of the assessment are also highlighted in the following paragraphs.
- 5.2.3 The headline from this analysis is that the revised WE SPD generally out-performs the 1997 SPG. The main reason for this is that the 1997 SPG is in place as adopted council planning guidance and cannot be changed in its current form. The SPG, therefore, has no scope to improve its sustainability performance beyond the short term. In contrast to this the revised WE SPD will provide updated and evolving guidance on planning for wind energy development and it has the potential to be re-shaped through the SA process to achieve more sustainable outcomes.
- 5.2.4 The WE SPD is likely to achieve a positive outcome when judged against SA objective SP1 (To increase the level of participation in democratic processes). This is possible as a result of direct consultation with the public and other stakeholders throughout the development of the WE SPD. By following Statements of Community Involvement (SCIs), more people have the option of commenting on the document and can do this through more varied media and different forums.
- 5.2.5 The revised WE SPD was initially formulated under a tight remit of landscape and visual impact. Its scope was never intended to go beyond these areas in any detail and therefore the document does not contain specific guidance relating to wider aspects of sustainability. This is acknowledged and has been taken into account during the assessment of options stage. Despite this 'caveat' it remains the job of the SA to identify areas in which the sustainability performance of the SPD can be improved. **Appendix 7** shows that the WE SPD performs less strongly against many of the SA objectives outside of those relating to landscape. This can be addressed by widening the scope of the WE SPD – this is discussed in more detail in **section 6.0**, the prediction of effects.
- 5.2.6 Whilst the WE SPD performed reasonably well against the SA objectives relating to the economy (EC1, EC2 and EC3), this could be further improved by expanding the guidance to cover the wider economic implications of wind energy development in Cumbria. At this time it is unclear whether this will be included within the scope of the WE SPD as these issues may be deemed to fall outside of a SPDs remit.
- 5.2.7 Refer to **Appendix 6** for the full assessment of options outcomes and results and **Appendix 7** for the full predictive analysis.

6.0 Predicting the effects of the draft WE SPD

6.1 Introduction

- 6.1.1 The SEA Directive requires the likely effects of the WE SPD section to be assessed. This is a key stage of the overall SA process. It sets out the likely impacts of the document being assessed and provides recommendations on how to bring the document more in line with the sustainability appraisal objectives.

6.2 Methodology

- 6.2.1 The purpose of this section of the SA is to predict the environmental, social and economic effects of the WE SPD. It takes the prediction of likely impacts of the WE SPD a stage further than the options testing assessment procedure discussed in part 5.2 of this report. The assessment of options stage simply compares the two options in question and makes a broad assessment against the 16 SA objectives.
- 6.2.2 The prediction stage (set out in **Appendix 7**) assesses only the chosen option (to implement the revised WE SPD) and introduces the baseline data and indicators to make a judgement about whether the WE SPD will affect the indicators over time. The potential effects are quantified where appropriate or a judgement made where this is not possible, with reference to the baseline situation.

6.3 Outcomes

- 6.3.1 The outcomes of the predictive analysis are presented in the end column of **Appendix 7**. Here a judgement is made about how the WE SPD will contribute to each indicator against each of the 16 SA objectives. Further analysis is provided in the following section on evaluating the predicted effects. Here, the predictions are reviewed and recommendations provided on how the WE SPD can evolve to better accord with the SA objectives. More detail on evaluation can be found in **section 7** and **Appendix 8** evaluation table.
- 6.3.2 In summary the WE SPD performs best against the objectives relating to landscape and visual amenity. This is not surprising as landscape is the focus area for the WE SPD and provides the greatest level of detail on this subject. Generally the WE SPD performs less well against the social, environmental and natural resource objectives but better against those objectives relating to the economy.
- 6.3.3 The WE SPD, because of its narrow remit does not currently contain detailed guidance on issues other than landscape and visual amenity. Because of this the WE SPD scores relatively poorly against many of the SA objectives. At the same time it is acknowledged that the WE SPD was formulated under a tight remit and was never intended to cover wider sustainability issues. However, due to the interrelationship and integrated nature of many of the factors being assessed under the 16 SA objectives it is recommended that the scope of WE SPD be broadened to include a wider range of topic areas.
- 6.3.4 In particular the guidance should seek to provide more robust direction on biodiversity, the water environment, the impact on the local economy, skills education and training, and natural resource management.
- 6.3.5 For detailed explanation and comment on the performance of the WE SPD against each of the 16 SA objectives refer to **Appendix 8** and **Table 2** in the following sections.
- 6.3.6 (It should be noted that at the time of writing, the organisation/agency responsible for gathering each particular data set and monitoring certain indicators has not yet been decided and a programme for monitoring has not yet been put in place. Stage E of the SA process which concentrates on monitoring will resolve this issue. For the purposes of this Stage B report in the, 'Can the effect be quantified column' of **Appendix 7** where an authority/organisation is named it does not necessarily mean that that authority/organisation will ultimately be responsible for data gathering or indicator monitoring around that particular objective).

7.0 Evaluating the Effects of the Draft WE SPD

7.1 Background

7.1.1 The purpose of this stage of the SA is to evaluate the effects identified during the previous predictive analysis stage. Having identified and described the likely effects of the WE SPD in part 6, the evaluation stage involves:

- providing some assessment of likely scale and magnitude of the predicted effects;
- identifying whether there are any cumulative effects;
- identifying whether there are any synergistic effects;
- outlining possible mitigation measure that might be taken;
- providing clear recommendations on how the WE SPD might be better aligned with the 16 Sustainability Appraisal objectives.

7.1.2 Further explanation of the above stages:

- Scale refers to the geographical scale that any likely impacts might affect.
- Magnitude relates to the likely severity of an effect and the likelihood of the effect occurring.
- Cumulative impacts arise, for instance, where several developments, individually each have insignificant effects but together have a significant effect; or where several individual effects of the WE SPD (e.g. noise, dust and visual) have a combined effect.
- Synergistic effects interact to produce a total effect greater than the sum of the individual effects. Significant synergistic effects can occur when habitats, resources or human communities get close to capacity thresholds. For example a wildlife habitat can become progressively fragmented with limited effects on a particular species until the last fragmentation makes the area too small to support the species at all.
- Mitigation is a key requirement of the SEA Directive – **Appendix 8** suggests ways in which mitigation of the predicted effects might be implemented. In most cases this is possible through simple alteration of the document being assessed to bring it more in-line with the SA objectives. Where this action is unlikely to fully mitigate the effects, technical mitigation measures might be required through the requirements of the planning and EIA processes. For example the EIA process might identify that a development is likely to have an adverse effect on a particular species. This effect could be mitigated by the provision of new habitat close to the development site.

7.2 Recommendations

7.2.1 Recommendations – the recommendations in **Appendix 8** set out the conclusions or results from the SA process. In effect these are the proposed directions for the redrafting of the document being assessed and provide the recommended ways in which the document can be revised to better accord with the SA objectives. This will create a more sustainable document in tune with the Sustainability Framework. For ease of reference a summary of the recommendations is set out below in **Table 2**:

Table 2: Summary Recommendations

SA Objective	Recommendation from the sustainability appraisal
SP1: To increase the level of participation in democratic processes (SEA: Population)	Include within the WE SPD a section on participation with links to District Authorities SCI's and include a section on how the SCI works and how members of the public and other interested stakeholders can participate in the WE SPD process. There should be some reference made to the history of consultation on the WE SPD to demonstrate how the document has been 'shaped'.
SP2: To improve access to services, facilities, the countryside and open spaces (SEA: Population)	Include a short section in the WE SPD guiding developers on access issues. The guidance should help developers understand the likely consequences of siting a wind energy development in the open countryside. Links should be made to the relationship to accessing the countryside and health and well-being and how this relates to achieving more sustainable wind energy developments.
SP3: To provide everyone with a decent home (SEA: Material Assets)	No direct recommendations relating to this objective. Housing falls outside the remit of the WE SPD.
SP4: To improve the level of skills, education and training (SEA: Population)	The WE SPD should include guidance on maximising the benefits to the local economy through improving education, skills and training both to schools, the wider community and the local workforce. Developers should be able to demonstrate some commitment to achieving this objective – there may be scope for this to be a requirement for granting planning permission in some instances though this may be difficult to implement – positive impacts on the local economy may be a planning consideration but not grounds enough for refusal. It should be made clear that whilst there will be a benefit to the Cumbrian economy through skills improvement and training programmes, developers will benefit by giving something back to the community. Links could also be made to economic and regeneration strategies and how developers might contribute to the aims of these.
SP5: To improve the health and sense of well-being of people (SEA: Human Health)	The WE SPD should include a section on the importance of well-being and how poorly planned, poorly sited and managed wind energy development might impact on this. Links should be made to health both physically in terms of possible construction impacts such as increased dust and pollution from vehicles but also mental health through maintaining people's well being and avoiding the impacts of noise pollution and visual disturbance/loss of amenity. The WE SPD already seeks to find the most appropriate sites for wind energy development but this is currently focussed on landscape issues.
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense local history (SEA: Population)	Communities close to wind farm developments will only remain open minded and inclusive places in which to live if the developers approach a wind energy project in the right manner. Excessive blight to an area from poorly planned, poorly sited and poorly managed wind energy developments will affect community spirit, cohesion leading to more divisive communities. Developers should be advised on how to avoid or minimise such impacts through careful and considerate liaison with town/village committees, interest groups and the wider public.
EN1: To protect and enhance biodiversity (SEA: Biodiversity, flora and fauna)	The WE SPD should contain a more specific section on biodiversity. This might take the form of a separate biodiversity chapter in which developers are encouraged to minimise their impact on biodiversity when designing, locating and constructing wind energy development. It may be appropriate to include maps which detail the most sensitive sites, habitats and species in the County. Objective EN1 also seeks some enhancement to biodiversity. Developers should be made aware that some mitigation measures may be required as a result of the EIA process.
EN2: To preserve, enhance and manage landscape quality and character for future generations (SEA: Landscape)	The WE SPD in its current form already provides robust guidance on landscape and visual impacts but more links could be made to the EIA process and landscape. Part 3 looks at the landscape and visual impacts and what's expected for the EIA but again this is centred around landscape/visual considerations of EIA.
EN3: To improve the quality of the built environment (SEA: Cultural Heritage)	Include a section on the built environment as part of the WE SPD, guiding developers on minimising the impact of their developments on archaeology and other built cultural assets in Cumbria. This might include maps detailing the areas most constrained by built heritage and advising developers on what will be required as part of the EIA process.
NR1: To improve local air quality and reduce greenhouse gas emissions (SEA: Air) (SEA: Climatic Factors)	Include a section on air quality and climate change. This section should make clear links to the requirements of the EIA process but there might also be scope to include a more contextual background section on wind energy and climate change and make links to regional targets for renewables and our responsibility to reduce greenhouse gases on the national and global scale. More specific guidance could be included on sustainable design and construction and sourcing

	local materials and minimising pollution from construction traffic and making links with local air quality and human health – sustainable construction/traffic planning.
NR2: To improve water quality and water resources (SEA: Water)	Broaden the scope of the WE SPD to take greater account of wind energy's relationship with the water environment. Links could be made with the requirements of the EIA process relating to water with a focus on the likely sources of pollution and demands on abstraction from the construction phases. Information and guidance could be in the form of illustrated maps (Environment Agency) detailing groundwater protection zones and areas of high pollution incidence and the most sensitive environments providing developers with knowledge of the most constrained areas.
NR3: To restore and protect land and soil (SEA: Soil)	Broaden the scope of the WE SPD to take account of soil pollution and resource issues. Developers should be guided and encouraged to take the necessary mitigation measures to avoid soil pollution incidents as a result of the manufacturing, construction and operational phases of wind farm development. Links can again be made to the requirements of the EIA process. It may be appropriate to provide developers with maps detailing where the most vulnerable environments are located in terms of soil degradation, PH levels and environments that include flora and fauna that are particularly sensitive to soil loss/pollution/damage.
NR4: To manage mineral resources sustainably and minimise waste (SEA: Air) (SEA: Climatic Factors) (SEA: Soil) (SEA: Water)	The WE SPD should take account of minerals and waste issues and guide developers on how to take a sustainable approach to the management of mineral resources and the minimisation of waste. Whilst energy from waste is outside the remit of the WE SPD, waste issues can still be addressed by guiding and encouraging developers to adopt practices that seek to minimise waste and use recycled material through the manufacturing, construction and operational phases of wind farm development. There are opportunities to make links to sustainable design and construction techniques, using local materials and reducing the demand for primary aggregates. The environmental, social and health benefits of this approach should be made clear and links made to the appropriate sections of the guidance. Links can also be made to the requirements of the EIA process.
EC1: To retain existing jobs and create new employment opportunities (SEA Population) (SEA Material Assets)	The WE SPD could make the links between the local economy and potential positive impacts of the wind energy sector much clearer. Links could be made to regeneration initiatives and strategies in place in Cumbria to help create a 'joined-up approach'. Developers should be encouraged to sustain the local economy through employing local contractors. Opportunities should be explored to link planning conditions/obligations for wind energy development consent and demonstrating a positive impact on the local economy through job creation.
EC2: To improve access to jobs (SEA Population) (SEA Material Assets)	Developers should be made aware of the need to diversify the Cumbrian economy and the role they can play in helping to achieve this. Renewable energy represents a new and growing industry that could increase the access to new employment opportunities in Cumbria. Developers should be encouraged through the WE SPD to improve the sustainability of their development by maximising their positive impacts on local economies. It should be made clear that this is part of 'committing to Cumbria' and creating good links and relationships with local communities.
EC3: To diversify and strengthen the local economy (SEA Population) (SEA Material Assets)	In order to influence this indicator a specific section could be included in the WE SPD guiding developers on maximising their influence on the local economy by employing local people both in designing and manufacturing and constructing/decommissioning wind energy development. There is an opportunity to guide developers to ensure that the variety and quality of employment in Cumbria's energy sector is improved. On top of this developers should be encouraged to support and help develop existing local businesses and companies.

8.0 Implementation

8.1 Proposed mitigation measures

8.1.1 The SEA Directive requires mitigation measures to be included in Stage B of the assessment process. Mitigation measures must prevent, reduce or offsets significant adverse effects of implementing the plan, policy or programme being implemented. Sound mitigation measures should include proactive avoidance of adverse effects as well as actions taken after the effects are noticed. Mitigation measures can also include recommendations for improving beneficial effects. Government guidance on carrying out sustainability appraisal states that mitigation can take a wide range of forms and approaches, including:

- changes to the plan, policy or programme as a whole, including bringing forward new options, or adding or deleting options;

- refining policies/guidance advice in order to improve the likelihood of beneficial effects and to minimise adverse effects, e.g. by strengthening policy criteria;
- technical measures to be applied during the implementation stage, e.g. buffer zones or application of design principles;
- proposals in EIA's accompanying planning applications; and
- proposals for changing other plans and programmes.

8.1.2 Clearly there is a wide range of possible mitigation techniques available. In the case of the WE SPD two main approaches are most appropriate and relevant. The proactive approach to mitigate adverse effects is through redrafting the WE SPD and broadening the remit of the document to cover wider sustainability issues other than landscape and visual effects. This provides an opportunity to guide developers on some of the areas that have been identified through the appraisal process as performing weakly against the SA objectives.

8.1.3 There are also a number of ways in which technical mitigation measures can be introduced to minimise adverse effects. The EIA process is a project level assessment that appraises the likely environmental effects of a development. The likely impacts across a range of areas and indicators are assessed and a report produced. Where impacts are identified mitigation measures will be required to be agreed before development can take place. The SPD could provide more links and information on the EIA process for developers which will inform the preparation of environmental statements.

8.1.4 **Appendix 8** includes mitigation measures set against each of the 16 SA objectives. Mitigation will link to the monitoring procedure to enable the success and effectiveness of the mitigation measures to be periodically checked and reviewed in accordance with the SEA Directive.

8.2 Monitoring the WE SPD

8.2.1 Monitoring is an integral part of the plan formulation and the SA process. Guidance suggests that decisions on what to monitor and how to do it should be made early in the process and not considered after the sustainability appraisal has been consulted on.

8.2.2 Monitoring allows the significant effects of plan implementation to be tested against those predicted in the sustainability appraisal. It helps to ensure that the problems which might arise during implementation can be identified and future predictions made more accurately. Monitoring can also help identify new indicators and develop new baseline data for future appraisals as plans are reviewed.

8.2.3 The SEA Directive (Article 10 (1)) specifically requires monitoring to identify unforeseen adverse effects and to enable appropriate remedial action to be taken. Monitoring systems are expected to be flexible. Most effects to be monitored will be taken from the list of predicted effects produced in this section of the overall SA. Other effects may not so easily be monitored through a rigid system such as effects that arise from an unforeseen event or from a change of circumstances. The need for flexibility is clear.

8.2.4 The Planning and Compulsory Purchase Act (2004) requires Local Planning Authorities to produce Annual Monitoring Reports (AMR) on progress in implementing

their Local Development Documents (LDD). These AMRs should include the findings of SA monitoring.

- 8.2.5 The following example monitoring framework is proposed in accordance with Government Guidance on sustainability appraisals and monitoring. Monitoring procedures will be developed further through Stage E of the SA process. The proposed monitoring framework set out below outlines a range of techniques and procedures for analysis. Stage E will refine the approach to be taken for monitoring the WE SPD and establish a working monitoring programme.
- 8.2.6 It should be noted that at the time of writing it is unclear where the responsibility for monitoring will lie. However, as the District Authorities will be adopting the SPD as part of their LDFs and are responsible for the majority of wind energy planning decisions, the County Council is working closely with the Districts to determine the best mechanism for long term monitoring. Any monitoring framework will need to be agreed by the Wind Energy Officers Group in conjunction with the SEA monitoring group and others. An example monitoring framework is set out below.

8.3 Example Monitoring Framework

Step 1: Identifying what needs to be monitored

The first step is to consider exactly what needs to be monitored. Monitoring measures will be clearly linked to the SA process, for example:

- The objectives, targets and indicators that were developed for the SA (Stage A);
- Features of the baseline that will indicate the effects of the plan (Stage A);
- The likely significant effects that were identified during the effects assessment (Stage B); and
- The mitigation measures that were proposed to offset or reduce significant adverse effects (Stage B).

Monitoring procedures that could serve the monitoring requirements of several plans will be investigated to ensure information sharing is maximised and duplication of effort minimised. Monitoring will consider both beneficial and adverse effects. Effects relate to the plan as a whole, and monitoring will include consideration of secondary, cumulative and synergistic effects over and above the effects of the individual measures in the WE SPD, and effects over the lifespan of the guidance. Monitoring will focus on significant sustainability effects, e.g. those:

- that indicate a likely breach of international, national or local legislation, recognized guidelines or standards;
- that may give rise to irreversible damage, with a view to identifying trends before such damage is caused; and
- where there was uncertainty in the SA, and where monitoring would enable preventative or mitigation measures to be taken.

Step 2: What sort of information is required?

The type (e.g. quantitative or qualitative) and the level of detail of SA monitoring information required will depend on the characteristics and level of detail of the plan and its forecasted effects. SA monitoring involves measuring indicators which may establish a causal link between implementation of the plan and the likely significant effect being monitored. The monitoring framework may be established in a way that seeks to take account of external factors and focus upon the links between the plan implementation and

the effect. Where it is difficult to establish these links it might be necessary to collect further information on plan output indicators.

It may be appropriate to undertake more contextual monitoring of social, environmental or economic change. This could involve measuring effects or aspects of sustainability that were not identified in the appraisal, or identifying changes in the broader social, environmental or economic context.

When selecting indicators to monitor, consideration will be given to the best techniques for analysis. Analysis could follow all or some of the techniques below:

- **Change in indicators:** The effects of plans can be gauged by examining patterns of change in the indicators and the extent to which related indicators have changed. This can be achieved through analysing groups of indicators together to create a profile of the issue being measured.
- **Baselines and predicted effects:** Changes in the direction of indicators can be measured against the baseline position and predicted effects documented.
- **Benchmarking:** Changes in the direction of indicators can also be measured against other comparable locations or receptors to establish whether similar effects are occurring. Benchmarking may help in the assessment of relative performance by taking into account external forces of change, which emphasises the value of qualitative data. This is best achieved by establishing a common set of core indicators.
- **Use of qualitative and quantitative information:** Monitoring of most indicators will be based on the collection of quantitative data, but there may also be a need to incorporate some qualitative information in the analysis to enrich understanding.
- **Interpretative commentaries:** One task of analysis is providing a considered interpretation of the results. This may be presented via appropriate explanations and commentaries within monitoring reports. The Planning and Compulsory Purchase Act requires AMRs to highlight areas where implementation is not occurring, state the reasons, and set out the actions needed to secure delivery. This could include mitigation of adverse effects.

Step 3: What are the existing sources of monitoring information?

Statutory monitoring under the Planning and Compulsory Purchase should focus on the implementation of a plan against predefined plan objectives, targets and indicators. This type of performance monitoring does not necessarily include sustainability effects, unless the RPB/LPA has developed sustainability performance indicators or sustainability best value indicators. But plan performance monitoring can be helpful when considered together with SA monitoring. Other existing monitoring is typically focused on what is required by regulations and legal requirements, but may provide information which is useful either directly or with some degree of analysis or manipulation.

Wherever possible, existing monitoring arrangements will be used to obtain the required information identified in Step 2. Consideration will be given to such issues as:

- What are the existing monitoring arrangements for the plan, and does this provide any of the required information?
- What are the existing monitoring arrangements for other plans, programmes or projects within the authority, and is there scope for aggregating or disaggregating data to obtain any of the required information?
- Is any of the required information available from other sources, e.g. higher or lower level authorities or data sources used for establishing the sustainability baseline?

- What organisational arrangements are needed to deliver the monitoring?

Step 4: Are there any gaps in the existing information, and how can these be filled?

Additional information may be required to monitor those aspects selected in Step 1. Some ways in which the required information can be obtained in a cost-effective and efficient way include:

- incorporate SA monitoring into existing performance monitoring for plans;
- expand other existing monitoring systems to include additional parameters; and
- where applicable, enter into agreements with other authorities to standardize monitoring methods and share information.

Step 5: What should be done if adverse effects are found?

The SEA Directive does not require a plan to be modified if monitoring reveals adverse effects on the environment. However, SA monitoring is intended to enable mitigating activities to be taken, and action may be required either by the Responsible Authority or other bodies. It may be necessary to establish a mechanism or framework to identify if and when remedial action is needed in response to adverse effects, including:

- criteria or thresholds for remedial action (e.g. what are the social, environmental or economic conditions that would be regarded as undesirable or unacceptable).
- potential remedial actions that could be taken if a significant effect was identified (e.g. review aspects of the plan that are causing the effects and make amendments, develop mitigation measures).
- those responsible for taking the remedial action (e.g. another authority or agency may be responsible for taking the remedial action and may need to be consulted). Documentation of monitoring programmes in tabular form may be used, and might include the following information:
 - What needs to be monitored (effects, other trends)?
 - What sort of information is required (indicator)?
 - Where can the information be obtained (sources of information)?
 - Are there any gaps in existing information and how can these be resolved?
 - When should remedial action be considered?
 - What remedial action could be taken?

Step 6: Who is responsible for the various monitoring activities, when should these be carried out, and what is the appropriate format for presenting the monitoring results?

When documenting the monitoring strategy consider:

- the time, frequency and geographical extent of monitoring (e.g. link to timeframes for targets; and monitoring whether the effect is predicted to be short, medium or long-term);
- who is responsible for the different monitoring tasks, including the collection, processing and evaluation of social, environmental and economic information; and
- how to present the monitoring information with regard to its purpose and the expertise of those who will have to act upon the information (e.g. information may have to be presented in a form accessible to non-environmental specialists).
- A table might be a useful format for documenting how the monitoring process could be managed, and might include information on:
 - monitoring activity to be undertaken;
 - responsibility for undertaking the monitoring;

- when the monitoring needs to be carried out (dates and frequency);
- how results should be presented and in what format; and
- status of monitoring and any problems encountered.

Reference	Sustainability Objectives	Sustainability framework: Guidance on making progress towards each objective
Social progress that recognises the needs of everyone		
SP1	To increase the level of participation in democratic processes	Does the guidance encourage and empower local people to become involved? Are all members of society able to participate fully in decision making processes? Does the guidance identify and set out how hard to reach groups will be involved? Will the guidance encourage local liaison committees to be set up with elected local representation? Does the guidance respect the needs of all communities and future generations?
SP2	To improve access to services, facilities, the countryside and open spaces	Does the guidance improve access and affordability for all to services, essential goods, facilities, including recycling facilities, education and employment opportunities (where possible within local communities using sustainable transport choices)? Does it help retain essential local facilities and ensure that physical access is suitable for those with a disability? Does the guidance promote and facilitate access to, and opportunities to enjoy, the countryside and natural green space?
SP3	To provide everyone with a decent home	Will the guidance help meet local housing need by ensuring that good quality, resource efficient, affordable housing with reduced environmental impact is available to all?
SP4	To improve the level of skills, education and training	Will the guidance deliver education and training which helps everyone develop the values, knowledge and skills necessary to enable them to live, act and work in society? Does the guidance recognise the need for people to adapt to economic change and retrain where necessary? Does the guidance enable people to live sustainable lifestyles?
SP5	To improve the health and sense of well-being of people	Does the guidance ensure all members of society have access to the health care that they require? Does it reduce health inequalities within society associated with income, lifestyle and diet? Does the guidance help create a healthy and safe working and living environment with low rates of crime and disorder and minimum disruption from wind energy development during construction phases and operation? Does the guidance help improve quality of life for all?
SP6	To create vibrant, active, inclusive and open-minded communities with a strong sense local history	Does the guidance promote a sense of community identity? Does it encourage social cohesion and help continue valued local traditions? Is recreational and cultural activity embracing the arts, heritage, the environment, dialect and sport promoted along with multicultural understanding, respect for all and equality of opportunity?

Effective protection of the environment		
EN1	To protect and enhance biodiversity	Does the guidance protect and conserve designated habitats and protected species? Will the plan ensure biodiversity sustainability by enhancing conditions whenever necessary to retain viability of the resource? Does the guidance minimise adverse impacts on species and habitats through human activities and development? Does the guidance ensure continuity of ecological frameworks such as river corridors, coastal habitats, uplands, woodlands and scrub to enable free passage of specific habitat dependent species? Will the guidance give effect to actions in the Cumbria BAP?
EN2	To preserve, enhance and manage landscape quality and character for future generations	Are local landscape quality, distinctiveness and character protected from unsympathetic development and changes in land management? Will the guidance protect areas of designated landscape value? Is the remoteness and tranquillity of landscapes maintained? Is the character and appearance of world heritage sites, designated archaeological sites, historic parks and gardens, battlefields and their settings protected? Are areas of high archaeological and historic landscape sensitivity protected? Will policies extend and sustain tree cover and hedgerows?
EN3	To improve the quality of the built environment	Does the guidance conserve features of historic and archaeological importance? Will guidance ensure that new development is of high quality, sympathetic to the character of the built environment, strengthen local distinctiveness, enhance the public realm and help create a sense of place? Will the guidance promote adaptive re-use of buildings, sustainable design, sustainable construction, the use of locally sourced materials and low impact operation? Will policies guide inappropriate development away from flood risk areas? Does the guidance ensure that where development in flood risk areas is permitted, the risks to people and property are mitigated? Will the plan reduce noise levels, light pollution, dust, and fly tipping?
Sustainable use and management of natural resources		
NR1	To improve local air quality and reduce greenhouse gas emissions	Will the guidance ensure that local air quality is not adversely affected by pollution from onsite activity and seek to improve it where necessary? Will the guidance limit or reduce the emission of greenhouse gases (including methane) and other air pollutants? Will the use of clean, low carbon energy efficient technologies be encouraged? Will the guidance maximise the use of energy from renewable resources? Will they reduce the need to travel especially by car, and switch goods from roads onto the rail network? Will the guidance introduce strategies to adapt to and mitigate other climate change impacts?
NR2	To improve water quality and water resources	Will the guidance help maintain and, where possible, improve the quality and quantity of all water resources? Will it minimise the risk of water pollution from minerals and waste sources? Will the guidance ensure sustainable drainage systems are widely used? Will the guidance lead to the effective management of demand for water, prevent stress on the natural environment and help water users adapt to the impacts of climate change?

NR3	To restore and protect land and soil.	Will the guidance protect areas of designated geological value? Will the guidance encourage development on brownfield sites, using sustainable remediation technology to treat contaminated soils on site? Will it minimise the loss of greenfield sites or areas of open space? Will the guidance prevent soil degradation, pollution of soil and the use of peat? Will the guidance ensure that sites are fully restored and blend sympathetically with the surrounding landscape?
NR4	To manage mineral resources sustainably and minimise waste.	Will the guidance ensure a steady, sustainable flow of minerals and the efficient use of materials? Will the guidance protect mineral resources from sterilisation? Will the guidance minimise the extraction, transport and use of primary minerals and encourage the use of recycled material? Will the guidance minimise the amounts of industrial, commercial and household waste generated and sent to landfill and encourage increased re-use, recovery and recycling? Will it promote the use of energy recovered from waste? Will the guidance encourage the use of secondary and recycled materials? Will the guidance help raise awareness of the need for waste minimisation amongst consumers and industry? Will the guidance deliver sufficient waste management facilities?
Building a sustainable economy in which all can prosper		
EC1	To retain existing jobs and create new employment opportunities.	Will the guidance increase the number, variety and quality of employment opportunities including those offered by tourism and social enterprise? Will the guidance support local wind energy companies and help local businesses develop export markets? Will the guidance help develop and retain a skilled workforce and graduates in Cumbria?
EC2	To improve access to jobs.	Will the guidance increase access for all to a range of jobs through improved training, sustainable transport and communication links? Will the guidance lead to the location of new employment opportunities in areas of greatest need?
EC3	To diversify and strengthen the local economy.	Will the guidance help create the right climate and infrastructure provision to encourage private sector investment? Will it encourage growth across all sectors? Will it stimulate the use of local companies, local materials, products and services and provide other forms of community benefit? Will it help increase the environmental performance of local companies and their products/services? Are innovation, entrepreneurship and diversification encouraged, particularly in rural areas? Does the guidance provide financial assistance? Will it help improve the competitiveness and productivity of the local economy? Does the guidance support research and development into environmental and other new key sector technologies including opportunities to recycle and re-use waste products?

Requirements of the SEA Directive

Preparation of an environmental report in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and geographical scope of the plan or programme, are identified, described and evaluated. The information to be given is (Art. 5 and Annex I):
a) An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and programmes;
b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;
c) The environmental characteristics of areas likely to be significantly affected;
d) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC;
e) The environmental protection objectives, established at international, Community or national level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation;
f) The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors. (These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects);
g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;
h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;
i) a description of measures envisaged concerning monitoring in accordance with Article 10;
j) a non-technical summary of the information provided under the above headings.
The report shall include the information that may reasonably be required taking into account current knowledge and methods of assessment, the contents and level of detail in the plan or programme, its stage in the decision-making process and the extent to which certain matters are more appropriately assessed at different levels in that process to avoid duplication of the assessment (Art. 5.2).
Consultation: <ul style="list-style-type: none"> • authorities with environmental responsibility, when deciding on the scope and level of detail of the information to be included in the environmental report (Art. 5.4). • authorities with environmental responsibility and the public shall be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan or programme and the accompanying environmental report before the adoption of the plan or programme (Art. 6.1, 6.2). • other EU Member States, where the implementation of the plan or programme is likely to have significant effects on the environment of that country (Art. 7).
Taking the environmental report and the results of the consultations into account in decision-making (Art. 8)

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
European PPPs		
EU Directive on the Conservation of Birds (79/409/EC)	The Directive and its amending acts are designed to protect 182 bird species living naturally in the wild, including their nests, eggs and habitats.	<p>The WE SPD will have to respect the Special Protection Areas designated as part of the Natura 2000 network and ensure minerals and waste operations do not take place there or in the immediate vicinity.</p> <p>The SA will need to include biodiversity as an essential part of the appraisal process.</p>
EU Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna (92/43/EEC)	This Directive is designed to protect some 253 habitat types, some 200 animal and 434 plant species.	<p>The WE SPD will need to ensure that development does not take place in or around Special Areas of Conservation set up as part of the Natura 2000 network.</p> <p>There are no additional implications for the SA.</p>
EU Noise Directive (2000/14/EC)	This Directive aims to control perceived noise levels in urban settings and in the open countryside arising from certain activities.	<p>The WE SPD will need to address noise arising from wind energy development management operations including transport and construction.</p> <p>The SA will need to deal with the prevention of noise pollution within its framework.</p>
Directive on Integrated Pollution Prevention and Control	The Directive deals with operating permits for polluting industrial and agricultural installations including those involving minerals and waste operations. It also sets out the minimum compliance requirements for inclusion in permits to enable compliance monitoring e.g. emission limit values for	<p>The WE SPD will need to ensure that wind energy development which employs best available techniques to minimise pollution.</p> <p>The SA framework will need to include objectives designed to protect air quality, soil and groundwater from pollution.</p>

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	certain pollutants.	
European Spatial Development Perspective (97/150/EC)	This Directive is tied to the EU aim of achieving Sustainable Development, particularly by economic and social cohesion.	<p>The WE SPD can manage wind energy development and help in the conservation and management of natural resources.</p> <p>The SA will need to take account of the effects on communities and the creation of local employment.</p>
Kyoto Climate Change Programme	This programme establishes a limit to greenhouse gas emissions. Member states are required to reduce emissions of 6 greenhouse gases by 8% by 2012.	<p>The WE SPD will need to address the issues of climate change and seek to maximise the reduction of greenhouse gases through its guidance to developers.</p> <p>The SA includes objectives for improving air quality and reducing greenhouse gases.</p>
Promotion of Electricity from Renewable Resources Directive (2001/77/EC)	This Directive establishes a framework to increase the share of green electricity, double renewable energy generation and reduce greenhouse gas emissions.	The WE SPD should seek to support this Directive by setting clear guidance to developers. By support this Directive a careful balance will need to be made between promoting wind energy and protecting the environment and communities.
EU Air Quality Framework Directives (1966/62/EC)	These establish limit values for various pollutants (sulphur dioxide, nitrogen dioxide, nitrogen oxides, particulates and lead) and alert thresholds for concentrations in ambient air and that this information should be made available to the public.	<p>The WE SPD will need to include guidance which ensures that local air quality is not adversely affected by the construction phases of wind energy projects.</p> <p>The SA will need to include objectives on local air quality.</p>
EU Water Framework Directive (2000/60/EC).	This Directive seeks to protect inland coastal waters, transitional waters, coastal waters and groundwater. It also requires a more	The WE SPD will need to recognise that wind energy development and construction can impact on water quality and affect the management of catchment areas.

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	integrated approach to the management of river catchments.	The SA will need to include objectives safeguarding water from pollution related to the construction of WE development.
European Biodiversity Strategy and action plan for the conservation of natural resources COM (98) 42 and Com (2001) 162 final	The Strategy aims to anticipate and prevent the causes of significant biodiversity loss as a means of reversing reduction trends and achieving satisfactory conservation status of endangered species. The action plan seeks to conserve species and habitats, reverse biodiversity losses and prevent biodiversity loss related to the management of water, soil, forests and wetlands.	The WE SPD will need to include guidance which effectively protects biodiversity (both species and habitats) and which seek to exploit opportunities to enhance biodiversity. The SA will need to include robust objectives on biodiversity.
Directive 1999/31/EC on the landfill of waste	The Directive seeks to prevent or reduce the adverse effects of landfill on the environment and in particular, on surface and groundwaters, soils, air and human health. This applies to landfilling of hazardous wastes, non hazardous and inert wastes. Clear waste treatment procedures and site licensing criteria are set out.	The WE SPD will need to include guidance which gives a high degree of protection to the environment from landfill. This will apply in this case to the landfill of waste as a result of the construction process. The SA will need objectives which reflect this where landfill remains in operation.
Framework Directive on waste disposal 75/442/EEC (amended 91/156/EEC, 91/692/EEC, 96/350/EC, and 96/59/EC)	The Framework Directive on Waste establishes community rules designed to protect human health and the environment from the harmful effects of waste collection, transport, treatment, storage and disposal. It encouraged resource recovery to conserve natural resources and introduced a licensing system for operators. Amending legislation	The Framework Directive on Waste and subsequent amending legislation gives a clear policy steer to ensure a high level of protection for people and the environment from waste management activity in Cumbria. European policy also points to conserving natural resources through resource recovery, recycling and re-use and waste minimisation. Guidance in the WE SPD will need to give effect to these objectives.

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	strengthen policy on waste recovery; waste minimisation; use of clean technologies; recycling and re-use; reduced movement of waste; the need for waste management plans and tighter regulation of waste management companies.	The SA will need to test the WE SPD for environmental protection; protection of people’s health; waste minimisation and resource recovery.
Directive on hazardous waste 91/689/EEC (amended Directive 94/31/EC)	This Directive seeks to facilitate the recovery and safe disposal of hazardous waste through the introduction of a licensing and recording regime for the segregation, control and management of hazardous waste.	The WE SPD guidance will need to distinguish between hazardous waste and other wastes and ensure that appropriate minimisation and recovery techniques are employed. This will apply in this case to waste management activities as a part of the construction process. The SA should reflect the need for protection of the environment and people.
EU Sustainable Development Strategy COM (2001) 264 final	The Strategy focuses European policy on tackling climate change and increasing the use of clean energy; addressing threats to public health; managing natural resources more responsibly; and improving the transport system and land-use management.	The policy direction being taken by the EU has implications for the WE SPD in terms of reducing greenhouse gases, using natural resources sustainably, and protecting people from pollution. The SA objectives will need to balance, environmental concerns and economic activity in an integrated way.
EU’s 6 th Environmental Action Programme (2001-2010)	This defines the EU’s environmental priorities and objectives. It supports the Sustainable Development Strategy. It focuses on climate change, biodiversity, environment and health and sustainable management of resources and wastes.	Implications for the WE SPD are: integration of environmental concerns into land use management policies; encouraging companies/developers to introduce EMAS and undertake environmental reporting. The WE SPD will need to reflect a higher level of concern about natural resource use, waste minimisation and soil quality and the extent of the soil resource. This will apply in this case to waste activities as a part of the construction process and well as

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
		<p>some operational activities.</p> <p>The SA will need objectives which test for climate change, biodiversity, environmental protection, soil protection, waste minimisation, human health and the sustainable management of resources.</p>
National PPPs		
<p>Securing the Future: UK National Sustainable Development Strategy 2005</p>	<p>This is a large complex strategy underpinned by concern for global issues and future generations. It consolidates the guiding principles of the previous strategy and expands these into a new integrated strategy. Five guiding principles form the basis for policy:</p> <ul style="list-style-type: none"> • Living within environmental limits • Ensuring a strong, healthy society • Achieving a sustainable economy • Promoting good governance • Using science soundly <p>Priority areas for immediate action are;</p> <ul style="list-style-type: none"> • Sustainable consumption and production • Climate change and energy • Natural resource protection and environmental enhancement • Sustainable communities 	<p>The Strategy’s principles of living within environmental limits and achieving a strong economy have implications for the WE SPD as does good governance which promotes public involvement in decisions affecting their quality of life.</p> <p>All 4 priority areas need to be reflected in the SA objectives.</p>
<p>UK Climate Change programme</p>	<p>Following Kyoto, the Government agreed to cut greenhouse gas emissions by 12.5% no later than 2012. The UK CCP takes this</p>	<p>This has implications for the WE SPD which will need to encourage energy efficiency in development proposals and reduced heavy goods transport from day to day activity to</p>

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	further by introducing domestic target of 20% reduction in carbon dioxide emissions by 2010. This will involve all sectors of the economy contributing to energy efficiency and developing and using environmental technologies. Grant aid has been made available to stimulate and supplement private sector involvement.	<p>help improve local air quality and reduce greenhouse gas emissions.</p> <p>This is also an opportunity for the WE SPD to help promote a more sustainable low carbon economy.</p> <p>The SA will need to fully reflect the importance of reducing greenhouse gas emissions from the construction phase, site operations and transport.</p>
Draft vision for the natural environment	This draft vision being produced by Defra signals policy direction on the natural environment. It is clear about the need for clean air and water, productive soils, a stable climate, natural breakdown of waste, a high quality local environment, the value of biodiversity and designated landscapes.	<p>This strongly suggests that the WE SPD will need to build in a high degree of environmental protection with the emphasis on material recovery and re-use with the extractive industries more closely regulated to align with changing environmental values.</p> <p>The SA will need to anticipate and reflect all of these aspects of Defra's vision for the natural environment.</p>
Working with the Grain of Nature: a biodiversity strategy for England 2002	This aims to embed biodiversity considerations into all the main sectors of public policy working (as the title suggests) with the grain of nature rather than against it.	<p>The WE SPD will need to seek to protect biodiversity and minimise any impacts on biodiversity from wind energy development.</p> <p>The SA will need to include an objective on the protection and enhancement of biodiversity.</p>
Ramsar sites in England: a policy statement	This sets out the Government's policies for the protection and management of Ramsar sites in England. It provides a level of protection which permits development within Ramsar sites in only the rarest of circumstances and makes it clear that if consent is given, lost wetland interests will	The WE SPD will need to respond by directing development away from Ramsar sites. Wetlands are fragile ecosystems and susceptible to hydrological change on and off site. For this reason potential wind energy developers will need to avoid wetland areas. All terrestrial areas within Ramsar sites are SSSI's and there is a duty to further the conservation and enhancement of these sites – this should be reflected in

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	have to be replaced by restoring and recreating habitats.	the SPD. The SA framework will need to incorporate objectives which support the protection of wetland habitats and species.
A new focus for England's Woodlands: a forestry strategy for England 1998	This sets out policies responding to climate change, reduced domestic oil gas and coal production, and aging energy distribution networks. Policy direction points to a low carbon economy.	Whilst this strategy focuses on biomass as a renewable fuel source there are still implications for the WE SPD. This includes the impact of wind energy development on woodland areas as a result of construction works. The SA framework will need to take account of the potential impacts on woodlands.
The first soil action plan for England 2004-2006.	This is aimed at policy-makers, planners and industry whose influence touches on construction, minerals extraction, agriculture, forestry, and nature conservation, cultural heritage and landscape conservation. It aims to protect and improve the management of England's soils.	The key points for the WE SPD are: protecting soils through the planning system from contamination; recognising that soils house biodiversity; and promoting recycled material for site restoration. This will have significant implications for the construction, management and decommissioning of wind energy developments. The SA framework will need to take account of the potential impacts on woodlands.
The Energy White Paper 2003	This sets out policies responding to climate change, reduced domestic oil gas and coal production, and aging energy distribution networks. Policy direction points to a low carbon economy with renewable energy technologies helping the UK to produce 10% of its electricity from renewable sources by 2010 – wind is expected to play a significant role in this.	Implications for the WE SPD include encouraging renewable energy from wind. Supporting policies relate to reducing carbon emissions, and this will have implications for the construction phases. The SA Framework will need to measure the SPDs contribution to reducing the impact of climate change.

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
Air Quality Strategy	This sets standards, objectives and targets for the 8 main air pollutants, amended to include polycyclic aromatic hydrocarbons and tougher targets for particles, benzene and carbon monoxide. Overall the strategy aims to improve air quality and reduce death and ill health amongst people in urban areas and those who live near industrial sites.	<p>The WE SPD should look to manage air quality and reduce emissions during the construction phases.</p> <p>The SA will need to include an objective on improving air quality.</p>
The Future of Transport 2004	The strategy extends the existing 10 year plan on transport to 2014 and scans ahead to 2030. It aims to facilitate personal mobility while minimising the impacts on the environment and other people, including future generations. It also aims to provide transport networks to support the economy. Sustainable freight transport, a robust approach to protecting the environment generally and reducing environmental impacts of transport all feature strongly.	<p>The WE SPD will need to take account of transport impacts of wind energy development. Local communities should be protected from potential negative effects of road noise, dust, vibration, poor air quality and risk of accidents. This will apply to the construction phases as well as normal operations of sites</p> <p>The SA will need to include sustainable transport objectives which support reduced lorry movement and reduced emissions and better quality of life for residents living near sites.</p>
The Waste Strategy 2004 (plus recent amendments)	Policy direction can be summarised as: reducing the growth in household, industrial and commercial waste; recovering more value from waste through higher levels of recycling, composting and energy recovery; developing markets for recycled and secondary materials; and reduced use of landfill. Overall the aim is to utilise waste in a way that improves national productivity and contributes to sustainable development and a	<p>The WE SPD will need to accord with national policy on waste minimisation, recovery and recycling of both industrial and commercial wastes. Of most relevance will be the need to address the use of recycled aggregates and building materials during the construction phases as well as links to manufacturers' practices when designing and building turbines.</p> <p>The SA will need to include specific objectives on sustainable waste management.</p>

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	cleaner environment.	
The Historic Environment: A Force for the Future 2001.	The historic environment is fragile and not renewable. Government policy is developing along the lines of utilising the historic environment as a learning resource, making it accessible to everyone, maximising its economic potential while minimising damage and preserving it for future generations.	<p>The main issues arising for the WE SPD is one of protection, ensuring that wind energy development planning permissions do not allow the historic environment or its immediate setting in the landscape to be damaged or compromised.</p> <p>The SA needs to make provision for the protection of the historic environment in its sustainability objectives.</p>
Wildlife and Countryside Act 1981 (as amended)	This sets out the law on the protection of birds, wild animals, wild plants, and gives effect to many international conventions and European Directives. The Act provides for the notification and protection and management of SSSI's (by reason of their flora, fauna, geological or physiographical features). The Act also requires authorities to maintain definitive maps of footpaths.	<p>The WE SPD should make provision for site environmental impact assessment before granting planning permission in order to help protect biodiversity and designated sites and footpaths from minerals and waste development.</p> <p>The SA will need to contain objectives on biodiversity and access to the countryside.</p>
Countryside and Rights of Way Act 2000		<p>The WE SPD will need to provide for the protection of biodiversity, SSSI's and AONB's and help deliver Government aims.</p> <p>No additional requirements placed on the SA.</p>
PPS 1 Delivering Sustainable Development	This sets out the key principles of national planning policy whereby sustainable development has been integrated with other principles to facilitate and promote	The WE SPD should be underpinned by sustainable development objectives. The WE SPD should help to deliver prudent use of natural resources, protection and enhancement of the environment, social progress and

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	sustainable and inclusive patterns of urban and rural development.	<p>economic regeneration. The WE SPD will need clear aims and objectives to deliver a sustainable approach to planning for wind energy develop.</p> <p>The SA will need to include objectives which pursue sustainable development in an integrated way.</p>
PPS 7 Sustainable Development in Rural Areas	Policies apply to rural areas, including settlements as well as the undeveloped countryside. The policies aim to improve quality of life and the quality of the environment by promoting inter alia a more sustainable pattern of development and a diverse agricultural sector.	<p>The WE SPD will need to help deliver sustainable development by supporting economic activity and employment creation at suitable sites, and protect the quality and character of the wider countryside (designated areas, landscapes, geological and historic features and biodiversity).</p> <p>The SA will need to include objectives reflecting the quality and character of the countryside and the need for economic regeneration in rural areas.</p>
PPS 9 Biodiversity and Geological Conservation	The guidance sets out national planning policies on the protection and enhancement of biodiversity and geological diversity as part of the Government’s wider objective of delivering a more sustainable society.	<p>The WE SPD should encourage developers to consider and protect biodiversity and geological diversity. This should integrate with other land use development policies in a way which is consistent with international, national, regional and local priorities and objectives on biodiversity and geological diversity. The WE SPD will need to identify important sites.</p> <p>The SA will need to include objectives which protect and enhance biodiversity and geological diversity.</p>
PPS 11 Regional Spatial Strategies	This gives guidance on creating a spatial framework to inform the preparation of local development documents which will in time	The WE SPD guidance should broadly reflect the objectives of the Regional Spatial Strategy.

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Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	<p>reflect aspects of local development documents as they evolve. The RSS will contribute to sustainable development and deal with a range of policy themes including, housing, environment, biodiversity, infrastructure, minerals extraction and waste treatment and disposal. Energy will be dealt with in a separate strategy though there will be interrelated elements of the RSS relevant to the WE SPD. Regional and Local development documents have to broadly conform to each other.</p>	<p>The SA objectives should tie in with regional sustainability objectives.</p>
<p>PPS 12 Local Development Frameworks (LDF)</p>	<p>LDFs have been introduced to enable the planning system to allow plans to be revised more quickly; encourage wider public involvement in the planning process; allow key decisions to be taken earlier in the plan-making process; ensure that local plans contribute to sustainable development by undergoing a sustainability appraisal; and ensure that all plans are soundly based and that policies are backed by credible evidence.</p>	<p>SPDs form part of the LDF. The WE SPD will be drawn up in accordance with PPS 12 and will undergo a sustainability appraisal which as well as assessing the SPDs contribution to sustainable development will identify a range of baseline information and appropriate indicators to allow on-going monitoring of the evidence base.</p>
<p>PPG 13 Transport</p>	<p>This sets out the planning policies necessary to deliver an integrated transport policy which aims to promote more sustainable transport choices for people and for moving freight; promote access to jobs, services and facilities by public transport, walking and cycling; and reduce the need to travel by car.</p>	<p>The WE SPD will need to reflect Government policy on sustainable transport. Whilst there is no direct relationship between transport and the operation of wind energy site there will be transport implications as a result of the construction phases that will need to be considered.</p> <p>The SA will need to contain objectives that relate to</p>

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
PPG 15 Planning and the Historic Environment	PPG 15 recognises the value and the need to protect the physical remains of our past which contributes to our culture and sense of identity. The policies recognise the contribution the historic environment can make to the local economy and urge authorities to incorporate a commitment to stewardship of the historic environment.	<p>potential impacts of transport.</p> <p>The WE SPD will need to incorporate guidance to protect the best of the historic environment from the impacts of development (noise, dust, visual intrusion, vibration, transport emissions etc).</p> <p>The SA needs to include stewardship of the historic environment in its objectives.</p>
PPG 16 Archaeology	National policy regards archaeological remains a finite, often fragile, non-renewable resource to be managed for the benefit of society and not needlessly or thoughtlessly destroyed.	<p>The WE SPD will need to provide guidance on protecting nationally important archaeological remains and their settings from development and include policies requiring an assessment of the merits of all archaeological evidence and take this into account when determining applications relating to minerals and waste.</p> <p>The SA framework already incorporates protection of the historic environment.</p>
PPG 21 Tourism	PPG 21 outlines the economic significance of tourism, its environmental impact, and its importance in land-use planning. It explains how the needs of tourism should be dealt with in development plans and in development control. It considers the scale and character of tourist activity, its economic significance, and future trends in tourism. PPG 21 acknowledges the need for supplementary planning guidance on certain aspects but makes it clear that policy	<p>The WE SPD will need to consider the potential impacts of the wind energy development on the tourist industry in Cumbria.</p> <p>The SA framework should consider the impact of wind energy development on the economic objectives EC 1, 2 and 3 of which tourism relates.</p>

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	direction for tourism should be set out in the statutory development plan.	
PPS 22 Renewable Energy	National policy is to reduce carbon emissions by 60% by 2050 and generate 10% of UK's electricity from renewables by 2010. Wind energy is regarded as a key element of how this will be achieved.	<p>The WE SPD needs to include policies promoting renewable energy, particularly harnessing energy from waste, irrespective of the scale and output of the development. Policies should also encourage greater public awareness and acceptance of the possibilities afforded by waste.</p> <p>The SA will need to include objectives on reducing carbon emissions and promoting renewable energy from waste streams.</p>
PPS 23 Planning and Pollution Control	This seeks to control and minimise pollution as part of a wider strategy to promote sustainable development. The precautionary principle underpins policy and its use is intended to protect people, livestock, biodiversity and the environment, including the built environment, from pollution, particularly where the risk cannot be assessed with confidence.	<p>The WE SPD will need to build its guidance around the precautionary principle.</p> <p>The SA will need to incorporate objectives on protecting local air quality and other environmental components as well as nearby residents, open countryside, flora and fauna by minimising pollution from wind energy development proposals.</p>
PPG 24 Planning and Noise	This seeks to separate noise sensitive development from roads, rail and some types of industrial development all of which generate noise and where this is not possible to reduce and mitigate noise levels through planning conditions.	The WE SPD will need to include guidance that is designed to encourage noise emitting development to be located away from residential areas and also remote tranquil areas of designated countryside. Additional policies will also be required on reducing and mitigating noise pollution from wind energy activity.

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
		The SA will need to incorporate noise avoidance in its objectives on local environmental quality.
Landscape Character Assessment Guidance for England and Scotland' (2002)	<p>"Landscape Character Assessment - Guidance for England and Scotland" was published in April 2002 by the Countryside Agency and Scottish Natural Heritage.</p> <p>The guidance provides advice on Landscape Character Assessment. Landscape Character Assessment is an important tool for all those involved in influencing the landscape. The guidance reflects how methods and techniques for Landscape Character Assessment have developed in recent years and builds upon interim guidance which was the subject of consultation in 1999. The guidance has been prepared for England and Scotland, although aspects might have relevance to other parts of the British Isles.</p>	<p>The WE SPD is centred on landscape and visual impacts. There are no additional matters raised by this document to concern the formulation of the WE SPD outside those raised by the Cumbria Landscape Strategy and Character Assessments.</p> <p>The SA will need to take account of landscape impacts.</p>
Regional PPPs		
Regional Economic Strategy (RES) 2003	The RES focuses on business development, regeneration, skills and employment, infrastructure and image of the NW Region. Underpinning the Strategy is the need for sustainable development, improved quality of life, equality and diversity and partnership	The WE SPD guidance needs to respond by helping to create a framework within which investment and economic growth can take place, creating jobs particularly in rural areas, in a way which protects and enhances the natural environment and ensures that natural resources are used prudently.

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	working with delivery at the appropriate level.	The SA framework needs to include objectives on regeneration, jobs creation, skills and training, sustainable management of natural resources, protection of the environment and biodiversity and social inclusion and equality.
Regional Economic Strategy Consultation Draft 2005	New emerging, evidence based regional economic strategy seeks to integrate social, environmental and urban rural issues into each component part of the Strategy (business, skills, regeneration, infrastructure and quality of life). The draft Strategy aims to transform the region through sustainable economic development into a competitive, high added value, knowledge based inclusive economy by raising business output and productivity, creating more and better jobs, ensuring people have good skills and access to work, helping disadvantaged communities and reducing household income variations.	This Strategy poses no new or additional implications for the WE SPD or indeed the SA since the policy implications are similar to those identified above and therefore the implications for the SA are also the same.
Regional Planning Guidance (RPG 13) 2003	RPG provides a regional spatial strategy within which development and local transport plans can be prepared. It also informs other strategies. RPG’s objectives are: greater economic competitiveness and growth coupled with social progress; urban renaissance; the revival of coastal resorts; expanding rural economies; active management of environmental and cultural assets; a better regional image; and an	RPG is being superseded by Regional Spatial Strategy but key indicators remain relating to the sustainable management of environmental resources (the historic environment, landscape character, biodiversity, water resources and air quality). Implications for the SA are a range of objectives covering sustainable transport, sustainable production and waste minimisation with environmental protection and enhancement as well as economic regeneration.

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	accessible region with an efficient, integrated transport system.	
Regional Spatial Strategy Draft Revisions 2005 (RSS)	<p>The draft RSS incorporates the Regional Transport Strategy and identifies the scale and distribution of housing development and priorities for environment, transport, infrastructure, economic development, agriculture, minerals and waste treatment and disposal.</p> <p>It informs and is influenced by other plans and strategies including national and regional sustainable development strategies.</p>	<p>LDF's are required to be in conformity with RSS and therefore the WE SPD guidance will need to reflect relevant policies contained in the RSS. More detailed regional policies relating to energy are covered in the Regional Sustainable Energy Strategy. To ensure conformity sustainable development will need to inform the WE SPD guidance and produce high standards of environmental protection and enhancement.</p> <p>The SA will need to reflect the Region's sustainable development priorities on sustainable transport and sustainable production and consumption, biodiversity and landscapes, climate change, healthy communities and enterprise and innovation outlined above.</p>
Action for Sustainability 2004	<p>The regional sustainability framework seeks to influence other strategies to produce sustainable outcomes. It aims to bring about sustainable transport and access; sustainable production and consumption; social equity; high quality biodiversity and landscape; active citizenship; and lifelong learning. It also supports cultural distinctiveness, healthy communities and enterprise and innovation while taking care that all policy objectives include action to mitigate and adapt to climate change.</p>	<p>The WE SDP will need to contribute to sustainable transport, sustainable production and consumption, biodiversity and landscape, enterprise and innovation while bringing about policy outcomes which do not accelerate climate change.</p> <p>The SA framework will need to contain a range of objectives which broadly conform to those contained in Action for Sustainability.</p>
Regional Waste Strategy 2004	Aims to contribute to sustainable	The WE SPD guidance will need to be aware of waste

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	development in the Region by encouraging waste management systems that will reduce waste generation, lessen the environmental impacts of waste production and improve resource efficiency. It also aims to stimulate investment and maximise associated economic opportunities.	<p>minimisation especially with regards to the construction phases of wind energy development.</p> <p>The SA will need to include objectives on waste minimisation.</p>
Regional Sustainable Energy Strategy consultation draft 2005	The Strategy focuses on reducing energy use, increasing use of renewable energy and combined heat and power technologies. It aims to establish a policy framework which integrates sustainable energy into planning and development control, new construction, refurbishment work and energy use in the home and by organisations and companies. It also sets targets for renewable energy and energy efficiency based CO ₂ reductions.	<p>The WE SPD policies will need to facilitate energy from renewables by providing a clear framework of guidance for potential wind energy developers.</p> <p>The SA will need objectives on climate change and renewable energy.</p>
Local PPPs		
Cumbria and Lake District Joint Structure Plan 2001-2016 (JSP) (Modification 2005)	The JSP guides land use in Cumbria and provides a framework for local plan making at District level outside the Lake District National Park. A major policy theme is sustainable development that seeks to protect the environment, ensure prudent use of natural resources and maintain social progress and economic growth.	<p>The WE SPD will need to contain guidance which promotes sustainable development with particular emphasis on environmental protection, sustainable use of natural resources without stifling social progress and economic growth.</p> <p>The SPD will need to be consistent with other JSP policies protecting local communities, the local environment and local transport infrastructure with policies requiring high standards of aftercare and restoration.</p>

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
		<p>The SA will need to include objectives on the sustainable use of natural resources and site remediation. Other objectives on biodiversity and landscape and quality of life will need to be included too.</p>
<p>Cumbria’s Sub Regional Spatial Strategy 2004 to 2024</p>	<p>This strategy differs markedly from the JSP. It complements Sustainable Cumbria the strategy for securing economic growth, social progress and environmental protection. It provides a spatial planning framework to enable actions to achieve these broad aims in specific locations. It sets out an agreed list of priority measures to reduce dependency on towns outside Cumbria for jobs and services; to increase the complementary nature of key towns; and to develop and maintain high quality transport networks.</p>	<p>It is not clear how the WE SPD should respond to what is in effect more of an aspirational document more suited to lobbying than land-use planning. The key messages that come out of the strategy are aimed at quality of life and economic growth in particular areas. Nonetheless it does seek to protect areas of nature conservation and landscape importance, historic sites and parks and gardens along with air quality and water quality. The WE SPD will need to be aware of these policies and incorporate them.</p> <p>The SA can best respond by having a comprehensive set of objectives which cover social and economic progress within a framework of environmental protection and sustainable use of resources. It also proposes a cost benefit approach to planning decisions and calls for a range of impact assessments to facilitate decision-making. The SA framework needs to include a full range of objectives covering social progress, sustainable use of natural materials, environmental protection and regeneration.</p>
<p>Sustainable Cumbria 2004 to 2024</p>	<p>This is a strategy for growth and progress in Cumbria with 9 priority areas and 7 cross cutting themes against which partner</p>	<p>Key policy signals for the WE SPD include sustainable development coupled with a number of locational foci aimed at creating wealth and regenerating local economies through</p>

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	<p>organisations are expected to assess their policies and programmes. The overarching priority is to create sustainable communities and promote social, economic and environmental well-being in Barrow and West Cumbria, Carlisle, the Lake District National Park; other priorities include improving the tourism experience in Cumbria, improving strategic communications, creating wealth and a diversified economy, rural regeneration and resolving housing market failures.</p>	<p>various measures.</p> <p>The WE SPD can best respond by having aiming to meet Cumbria's sustainability objectives where possible. This will ensure that the WE SPD contributes as fully as practicable to a more sustainable society.</p> <p>There are no additional implications for the SA framework which comprehensively covers these issues.</p>
<p>Provisional (2005) Local Transport Plan 2006 -2011</p>	<p>The LTP covers all of Cumbria and provides a framework for the delivery of transport by all transport organisations operating in Cumbria. The LTP aims to: provide an integrated transport network that supports the economy; enable access to jobs and services; reduce road casualties; contribute to the quality of the built and natural environments; improve public health; make appropriate use of existing infrastructure; and enable sustainable access to culture, heritage and the countryside.</p>	<p>The WE SPD will need to respond by seeking to prevent any significant increases in road transport of bulk materials during construction phases of wind energy development. In this way the WE SPD can help contribute to a number of LTP core objectives.</p> <p>The SA framework already embraces all the LTP objectives on access to services and jobs, on public health, the economy, the environment, on access to the countryside and on reducing road freight shipments.</p>
<p>Allerdale Local Plan 1996-2006</p>	<p>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</p>	<p>The WE SPD will need to respond by adopting an equally positive approach to sustainability and tailoring its policies to respect the Local Plan's approach to protecting designated sites; controlling inappropriately located wind energy planning applications; protecting open space from</p>

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	<p>will be resisted. Key principles guiding the plan are that the local economy will be promoted in a sustainable way and that the natural environment will be protected and enhanced. More detailed policies relate to the control of environmental pollution; avoiding increased movement of heavy lorries to and from sites; avoiding greenfield development; protecting quality agricultural land from development; reclamation of derelict sites; resisting development which would adversely affect sites designated for either landscape quality or biodiversity and protecting open spaces from development.</p>	<p>development and reducing lorry movements.</p> <p>The SA will need to include a comprehensive range of objectives which support environmental aims and encourage economic and social progress.</p>
<p>Barrow in Furness Local Plan review 1996-2006</p>	<p>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. Within this strategic context 4 guiding principles operate: regeneration through sustainable development; protecting and improving the local environment; providing a balanced supply of housing and developing as a sub regional centre for leisure and shopping. Proposals which are likely to damage environmental interests through pollution will not be permitted. The Proposals</p>	<p>Broadly the implications for the WE SPD have already been identified from the previous local plan. The key policy influences to be taken on board are protection of the natural environment and its various components.</p> <p>There are no additional implications for the SA.</p>

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	<p>Map sets out areas of risk and protection relating to groundwater and county landscapes. Policies also set high standards of landscaping for new development and seek to avoid loss of tree cover and sites of historical or archaeological importance. Biodiversity is also given policy protection.</p>	
<p>Eden Local Plan 1996-2006</p>	<p>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; 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.</p>	<p>The broad policy influences identified in other district plans apply here too. There are therefore no additional implications for the WE SPD or indeed the SA.</p>
<p>Copeland Local Plan 2001-2016 2nd Deposit version April 2005</p>	<p>The Local Plan, when adopted, will set out the council's policies and proposals for the future development and use of land, improvements to the physical environment and the management of traffic. The Plan aims to: secure a stable and balanced population; improve public health, safety and quality of life; protect and</p>	<p>Additional influences on economic regeneration and community participation add to a comprehensive suite of policies pursuing environmental protection and sustainable development. There are no additional implications for the SA.</p>

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	<p>enhance landscapes, habitats and the built and natural environments; make the most effective use of existing buildings and infrastructure, previously developed land and natural resources; and promote economic regeneration.</p> <p>A number of more detailed objectives exist on: increasing community participation; protecting and enhancing landscapes, biodiversity and the historic environment; protecting and improving ground and surface waters and ensuring air quality is not adversely affected by development.</p>	
<p>Carlisle Local Plan 2001-2016 Redeposit Draft August 2005.</p>	<p>This is a Local Plan prepared under the transitional regulations. It sets out the spatial strategy and detailed policies for the control of development in the area. A number of supplementary planning documents are being developed to provide more detail on policies. It is likely to be adopted in June 2006. Economic prosperity and environmental sustainability form the key principles at the heart of the Local Plan. 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 seeks to protect the open countryside, including</p>	<p>No additional implications for either the WE SPD or the SA.</p>

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	<p>high quality agricultural land, from development that need not be there. It also aims to promote environmental protection and enhancement, (public open space, wildlife, historic environment, groundwater and surface waters). Other policies exist on preventing pollution and to encourage rail freight.</p>	
<p>South Lakeland Local Plan 2006 amended by Composite Plan 2004.</p>	<p>The Plan contains policies and proposals to guide development within the local authority area. The plan will be replaced during 2006/07 by a Local Development Framework. Work has begun on this. The most relevant policy area is environment and conservation. The District has quality natural and built environments, important nature conservation interests, high quality landscapes and a historic legacy. Plan policies seek to protect designated landscapes and less distinguished open countryside with important landscape qualities. Other policies seek to protect a high quality agricultural land, prevent light pollution from external lights, protect designated wildlife sites and habitats, the historic environment, the freshwater resource, control pollution and reduce derelict land.</p>	<p>No additional implications for either the WE SPD or indeed the SA.</p>

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
Cumbria Biodiversity Action Plan (CBAP) 2001	<p>The objectives of the CBAP are:</p> <ul style="list-style-type: none"> To implement national biodiversity targets at the local level. To address local priorities not identified in the UK Biodiversity Action Plan. To engender greater awareness and understanding of Cumbria's biodiversity and wider participation in its conservation. <p>The CBAP introduces and number of specific species and habitat actions plans to focus the protection and conservation efforts in the county on the most sensitive flora and fauna and environments.</p>	<p>The WE SPD will need to seek to protect biodiversity and minimise any impacts on biodiversity from wind energy development.</p> <p>The SA will need to include an objective on the protection and enhancement of biodiversity.</p>
Cumbria Wind Energy Supplementary Planning Guidance (SPG) 1997	<p>This SPG is in the process of being replaced by the Cumbria Wind Energy Supplementary Planning Document (WE SPD) 2006.</p> <p>This SPG was prepared to provide local planning authorities and developers with additional guidance on wind energy development in Cumbria. The guidance is focussed on landscape and visual impacts leaving the development itself to guide developers on matters such as biodiversity and noise.</p>	<p>The WE SPD has been informed by this preceding guidance document and seeks to reinforce and develop the guidance to provide more robust guidance on landscape and visual matters.</p> <p>No additional implications for the SA.</p>
Cumbria Landscape Classification Study (1995)	This study has been superseded by the Cumbria Joint Structure Plan Technical Paper 5 – Landscape Character.	The WE SPD has been informed by this study during its formulation.

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	<p>The Landscape Classification study provides a classification of landscape types across Cumbria using a methodology provided by the Countryside Commission. A number of factors go towards deciding what areas fall under which classification such as amount of built development, vegetation type, topography and how heavily managed each area is. 13 discrete areas are identified each with a consistent character.</p>	<p>The SA will need to take account of landscape impacts.</p>
<p>Cumbria Landscape Strategy</p>	<p>The main objective of this strategy is to manage changes in the landscape to satisfy economic and other aspirations in a manner which leaves distinctive and high quality landscapes for the benefit of future generations. The strategy sets out key characteristics of the Cumbrian landscape, recent impacts of changes on the landscape, a management strategy and more detailed guidance on particular features and landscapes. The strategy covers all of Cumbria except the National Park but does include the small part of the Yorkshire Dales National Park that falls within the County boundary.</p>	<p>The WE SPD has been informed by this study during its formulation.</p> <p>The SA will need to take account of landscape impacts.</p>
<p>Cumbria Joint Structure Plan Technical Paper 5 – Landscape</p>	<p>This technical paper aims to provide a clear understanding of Landscape Character and</p>	<p>The WE SPD has been informed by this study during its formulation.</p>

Review of Relevant Policies, Plans and Programmes (PPPs)

Relevant Plan or Programme Identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
Character	<p>how it has been defined in Cumbria. It updates and rationalises two previous publications, the Assessment of County Landscapes Technical Paper No 4 (published in July 1992) and the Cumbria Landscape Classification (published in October 1995).</p> <p>This technical paper notes that the character of upland and coastal areas of the county are particularly vulnerable to change resulting from the introduction of wind energy developments.</p>	<p>The SA will need to take account of landscape impacts.</p>
Cumbria Joint Structure Plan Technical Paper 6 – Renewable Energy	<p>Technical Paper 6 identifies a number of areas within Cumbria where onshore wind energy developments could be located in order to meet the County's contribution towards the Government's national renewable energy targets. Such areas have been identified by using a sieving process which, from a map showing all suitable areas in terms of wind resource, then excludes areas protected by statutory and non-statutory designations (such as National Park, Area of Outstanding Natural Beauty, World Heritage Site etc). It then refines the information to look at factors such as the potential for 'cumulative' impact i.e. the landscape becoming to a greater or lesser degree a 'wind energy' landscape and on the likely</p>	<p>The WE SPD has been informed by this study during its formulation.</p> <p>The SA will need to take account of energy/climate change.</p>

Review of Relevant Policies, Plans and Programmes (PPPs)

identified	Brief overview and outline of policy	Issues arising for the Wind Energy Supplementary Planning Document (WE SPD) and Sustainability Appraisal (SA)
	environmental impacts of developing particular sites.	

Social
Pressure for housing pushing prices up – implications for housing to meet local needs and affordability of housing (S. Lakeland, Eden & LDNP).
Second homes/holiday lets and inward migration by retired people adds to this pressure (S. Lakeland, Eden & LDNP).
Run-down and vacant properties not utilised fully (Barrow & West Coast).
Access to services and facilities problematic in rural communities.
Public transport network inadequate in rural areas.
Comparatively safe communities overall but fear of crime disproportionately high in isolated rural areas.
Some alcohol-fuelled anti social behaviour linked to the night-time economy (Carlisle and Barrow) and a comparatively high number of race related incidents.
'Tourist' shops, for example in LDNP, may reduce the number of shops and services providing for local needs.
Established out of town shopping affecting the viability of smaller town centres.
Traffic congestion at peak times (Carlisle, Kendal) and also seasonal congestion (LDNP).
Lack of cycle networks within towns and cities.
Lack of Cumbrian university.
Loss of young people, particularly graduates and a reluctance of young people to continue family farming traditions.
Economic
Unemployment with higher levels of economic inactivity in West Cumbria and Furness partly linked to large number of incapacity benefit claimants.
Low unemployment and skills shortage in Eden and South Lakes.
Economic vulnerability due to decline of manufacturing & uncertain future of nuclear industry (West Coast & Barrow).
Increasingly frequent relocation of jobs outside the county (and the country).
Low wage economy particularly tourism related jobs.
Below average share of growth sectors in local economy.
Limited research and development facilities.
Gross Value Added growing more slowly than the rest of the UK causing the economy to under perform and a widening of regional disparities of wealth.
Recent farming crises causing problems for agriculture coupled with unique problems of farming in upland areas (falling incomes and the labour intensive nature of the work).
Poor access to West Cumbria and Barrow.
Redundant port and harbour areas in need of rejuvenation.
Pressure from mobile phone and internet companies/users to improve telecommunications in Cumbria.
Lots of derelict/contaminated (brown field) land in some areas due to decline in industry.
Environmental
Loss of tranquillity and impact of lights on dark skies.
Vulnerability of the landscape to recreational, leisure and sporting activities.
High proportion of species identified for national conservation priority.
Large tracts of upland and coastal habitat remain but elsewhere there are declines in extent (fragmentation) and quality of wildlife habitats and populations for some species

High proportion of nutrient rich lakes supporting a wide range of aquatic plants, invertebrates and breeding and wintering wildfowl.
Vulnerability of nutrient rich lakes and nutrient poor lakes (and their resident species) to additional enrichment from farming fertilizer run off and sewage.
Significant pressure on rivers, lakes and tarns from diffuse sources of pollution (agricultural wastes, fertilizers and run off from drains and road surfaces, coupled with some air pollution) .
Unknown impact of climate change possibly leading to outward migration of some species and inward migration of other as average temperatures rise.
Unsympathetic alterations to old buildings and bland new developments altering historic character and damaging archaeology in some areas.
National renewable energy targets likely to lead to pressures for more development of wind farms which could affect landscape character and quality.
Air quality problems in urban areas.
Need to reduce the risk to people and property from flooding (Carlisle, Kendal and Keswick).
Resources
Pressure responding to regulations preventing biodegradable waste going to landfill.
The need to develop alternative waste management methods and secure the necessary level of investment in additional facilities.
Problems of disposal and storage of radioactive wastes.
Pressure to continue to supply scarce mineral resources to meet national demand (gypsum and skid resistant road stone).
The need to meet mineral demand by substituting secondary and recycled material for primary aggregates.

SA Objectives	Indicator	Quantified Information for Cumbria	Comparators and Targets (e.g. Regional UK/English/Welsh average)	Trend	Notes/Issues/Constraints	
Social progress that recognises the needs of everyone						
SP1: To increase the level of participation in democratic processes (SEA: Population)	Number of local liaison committees in operation.	Currently unavailable for Cumbria.	None currently available.			
	Number of Cumbrians who submitted a written response to the WE SPD Consultation.	Currently unavailable for Cumbria.	None currently available.			
SP2: To improve access to services, facilities, the countryside and open spaces (SEA: Population)	Car ownership.	75.6%	73.2% England and Wales average.	Increased in Cumbria from 63.1% in 1981 and 69.2% in 1991 to 75.6% in 2001	Census 2001 data.	
	The following indicators under SP2 show the % of rural households at set distances from key services					
	% of Cumbrian households more than 4km from a bus service.	Currently unavailable for Cumbria.	None currently available.			
	% of Cumbrian households more than 4km from a train service.	Currently unavailable for Cumbria.	None currently available.			
	% of Cumbrian households more than 4km from a hospital.		North West 26.2% England 29%			
% of Cumbrian households more than 4km from a	51%	North West 91.8% England 86.8%				

SA Objectives	Indicator	Quantified Information for Cumbria	Comparators and Targets (e.g. Regional UK/English/Welsh average)	Trend	Notes/Issues/Constraints
	doctor's surgery.				
	% of Cumbrian households more than 4km from a dental surgery.	48%	North West 90% England 81.3%		
	% of Cumbrian households more than 2km from a post office.	81.3%	North West 93.9% England 90.5%		
	% of Cumbrian households more than 4km from a supermarket.	53%	North West 87.8% England 79.2%		
	% of Cumbrian households more than 2km from a Primary School.	82.7%	North West 95.3% England 92%		
	% of Cumbrian households more than 4km from a Secondary School.	61%	North West 87% England 75.8%		
	% of Cumbrian homes within 1km of a public footpath or Bridleway.	Currently unavailable for Cumbria	None currently available.		
SP3: To provide everyone with a decent home (SEA: Material Assets)	Home ownership in Cumbria.	72.3%	68.9% England and Wales average.		Census 2001 data.
	% of Cumbrians living in rented accommodation.	9.2%	9.9% England and Wales average.		Census 2001 data.
	% of Cumbrians	16%	19.2% England and		Census 2001 data

SA Objectives	Indicator	Quantified Information for Cumbria	Comparators and Targets (e.g. Regional UK/English/Welsh average)	Trend	Notes/Issues/Constraints
	living in sheltered/social housing.		Wales average.		
	% of homeless people in Cumbria.	0.36%	0.67% in England.		Neighbourhood Statistics, Households accepted at homeless.
	% of Cumbrians living in home deemed unsuitable for habitation/lacking amenities.	4.3%%	4.8% England and Wales average.		Unfit dwellings from Housing Investment Programme (HIP) Strategy Statistical Appendix (HSSA).
SP4: To improve the level of skills, education and training (SEA: Population)	Number of environmental education programmes in operation at wind energy sites.	Currently unavailable for Cumbria.	None currently available.		
	Number of visits by wind energy developers to schools/business.	Currently unavailable for Cumbria.	None currently available.		
SP5: To improve the health and sense of well-being of people (SEA: Human Health)	% of nuisance complaints received relating to wind energy sites.	Currently unavailable for Cumbria.	None currently available.		

SA Objectives	Indicator	Quantified Information for Cumbria	Comparators and Targets (e.g. Regional UK/English/Welsh average)	Trend	Notes/Issues/Constraints
	Population in 'not good' health.	10% (2003)	North West: 11% England: 9% (2003).		These percentages were calculated from the following raw data: Cumbria 48,587 of 487,607 North West 737,114 of 6,729,764 England 4,435,876 of 49,138,831 (2003).
	Population with limiting long-term illness.	20% (2003)	North West: 20.7% England: 17.9% (2003).		These percentages were calculated from the following raw data: Cumbria 97,706 of 487,607 North West 1,394,609 of 6,729,764 England 8,809,194 of 49,138,831 (2003).
	Population sedentary/taking no exercise.	10% (for Allerdale, Carlisle, Copeland and Eden combined).	Unavailable.	Unavailable.	From North Cumbria Public Health Survey, 2003.
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense local history (SEA: Population)	% of residents who are satisfied with their neighbourhood as a place to live.	94% very satisfied or fairly satisfied in Cumbria.	No national comparison.		From Cumbria Economic Intelligence Partnership household survey 2004.
Effective Protection of the Environment					
EN1: To protect and enhance	Loss of UK and Cumbria BAP species	Currently unavailable for Cumbria.	None currently available.		

SA Objectives	Indicator	Quantified Information for Cumbria	Comparators and Targets (e.g. Regional UK/English/Welsh average)	Trend	Notes/Issues/Constraints
biodiversity (SEA: Biodiversity, flora and fauna)	and area of BAP habitat (and species and habitats named in the Birds and Habitats Directives).				
	Area lost from non-statutory designations, such as County Wildlife Sites.	Currently unavailable for Cumbria.	None currently available.		
	Area lost from Sites of Special Scientific Interest.	Currently unavailable for Cumbria.	None currently available.		
	Area lost to wind energy development immediately adjacent to designated areas and sites with protected and priority species.	Currently unavailable for Cumbria.	None currently available.		There are 1,800 sites but no condition surveys have been undertaken. The sites are currently under review and this process is likely to continue until 2008.
	Area of land created to support biodiversity as a result of wind energy development.	Currently unavailable for Cumbria.	N/A	Recent surveys suggest that the condition of Cumbria's roadside verges is worsening.	There are 7,000 miles of roadside verges in Cumbria at most altitudes up to 600m above sea level. 400 miles of verges have been designated as 'Special' due to their ecology and conservation value.
EN2: To preserve, enhance and	Number of wind energy developments	Currently unavailable for Cumbria.	None currently available.		

SA Objectives	Indicator	Quantified Information for Cumbria	Comparators and Targets (e.g. Regional UK/English/Welsh average)	Trend	Notes/Issues/Constraints
manage landscape quality and character for future generations (SEA: Landscape)	located within designated landscape areas (National Parks and Areas of Outstanding Natural Beauty).				
	Number of wind energy developments located adjacent to designated landscape areas.	Currently unavailable for Cumbria.	None currently available.		
	Number of wind energy sites with significant visibility from designated landscapes.	Currently unavailable for Cumbria.	None currently available.		
	Loss of key landscape features as defined in the Cumbria Landscape Classification and Cumbria Landscape Strategy	Currently unavailable for Cumbria.	None currently available.		
EN3: To improve the quality of the built environment	% of local materials supplied for construction phase of wind energy development.	Currently unavailable for Cumbria.	None currently available.		

SA Objectives	Indicator	Quantified Information for Cumbria	Comparators and Targets (e.g. Regional UK/English/Welsh average)	Trend	Notes/Issues/Constraints
(SEA: Cultural Heritage)	Number of historic sites in each category sited within or adjacent to a wind energy development.	7,681 listed buildings 847 scheduled monuments 19 parks and gardens 115 conservation areas (2004).	There is generally a small increase in numbers each year.	Of the region's counties/local authority areas Cumbria has the greatest number of scheduled monuments and listed buildings. Cumbria has less parks and gardens and conservation areas than the more urban areas.	No data available in relation to numbers affected by wind energy development.
	Grade I, II* and II listed buildings at risk sited within or adjacent to a wind energy development.	Grade I 185 buildings with 4 (2%) on the Buildings Risk Register (2005). Grade II* 447 buildings with 11 (2%) on the Buildings at Risk Register (2005). Grade II – data currently unavailable for Cumbria.	North West: 481 buildings with 16 (3%) on the Buildings at Risk Register (2005).		Data correct as of 23/06/05, the figures have been updated since the publication of <i>Heritage Counts 2004</i> . 38% of the figure for the North West refers to Cumbria.
	Scheduled monuments at risk sited within or	912 monuments with 29 (3%) on the Buildings at Risk	North West : 1,369 monuments with 52 (4%) on the Buildings		Data correct as of 23/06/05. The figures have been updated since the publication of

SA Objectives	Indicator	Quantified Information for Cumbria	Comparators and Targets (e.g. Regional UK/English/Welsh average)	Trend	Notes/Issues/Constraints
	adjacent to a wind energy development.	Register.	at Risk Register (2005).		<i>Heritage Counts 2004.</i> 66% of the figure for the North West refers to Cumbria.
	Registered parks and gardens at risk sited within or adjacent to a wind energy development.	Currently unavailable for Cumbria.	None currently available.		
	Number of conservation areas adjacent to a wind energy development.	Currently unavailable for Cumbria.	None currently available.		
	Number of traditional buildings renovated/reused as a result of wind energy development.	Currently unavailable for Cumbria.	None currently available.		
	Percentage of conservation areas in local authority area with an up-to-date character appraisal.	98%	None currently available.		From: http://www.defra.gov.uk/erdp/docs/nwchapter/section12/NW122.htm
	Percentage of conservation areas with published	Currently unavailable for Cumbria.	None currently available.		

SA Objectives	Indicator	Quantified Information for Cumbria	Comparators and Targets (e.g. Regional UK/English/Welsh average)	Trend	Notes/Issues/Constraints
	management proposals.				
Sustainable use and management of natural resources					
NR1: To improve local air quality and reduce greenhouse gas emissions (SEA: Air) (SEA: Climatic Factors)	Estimated emissions CO ₂ (tonnes) from wind energy development construction phases.	Currently unavailable for Cumbria.	None currently available.		
	Estimated emissions CO ₂ (tonnes) offset from wind energy development.	Currently unavailable for Cumbria.	None currently available.		
	Background levels of air pollutants listed in the National Air Quality Strategy.	AQMA also established in an area encompassing the A7 between Hardwicke Circus and J44 of the M6, and Brampton Road for a distance of 100m from the Stanwix Bank junction. At Lowther Street (Kendal) the annual mean value for NO ₂ is 90.9µg/m ³ (2000). An AQMA has been declared.	Under the National Air Quality Strategy the Government Objective level for NO ₂ is 40µg/m ³ .	Projections suggest that the Lowther Street AQMA will be revoked in 2010. Levels of NO ₂ may also lead to an AQMA being declared on Highgate and Kirkland (Kendal). Air quality is worsening in Carlisle and an AQMA is likely to be declared at Stanwix Bank. N.B. Current air quality issues in Kendal	The level of PM ₁₀ has also been noted as a problem at Lowther Street (2000).

SA Objectives	Indicator	Quantified Information for Cumbria	Comparators and Targets (e.g. Regional UK/English/Welsh average)	Trend	Notes/Issues/Constraints
				have been attributed to a trial traffic system.	
	Estimated change in CO ₂ emissions from road traffic locally	Currently unavailable for Cumbria	None currently available		
	Mode share of work journeys to work	Car = 63.0% Foot = 14.4% Bus = 5.0% Train/underground = 0.8%	England and Wales Car = 61.5% Foot = 10.0% Bus = 7.4% Train/underground = 7.1%		
	Mode share of work journeys to school	Currently unavailable for Cumbria	None currently available		
NR2: To improve water quality and water resources (SEA: Water)	Number of water pollution incidents caused by wind energy development.	Currently unavailable for Cumbria.	None currently available.		
	Number of wind energy development sites located within groundwater protection zones.	Currently unavailable for Cumbria.	None currently available.		
	Number of wind energy developments permitted in flood risk zones.	Currently unavailable for Cumbria.	None currently available.		
	Rivers with good to fair biological quality	98.59% (2003)	North West: 87.68% England: 87.69%	Cumbria has seen an improvement of	'Good to fair' includes the categories very good, good, fairly good, and fair.

SA Objectives	Indicator	Quantified Information for Cumbria	Comparators and Targets (e.g. Regional UK/English/Welsh average)	Trend	Notes/Issues/Constraints
			(2003)	2.11% since 2000.	
	River with good to fair chemical quality.	98.19% (2003)	North West: 90.56% England: 93.43% (2003)	Cumbria has seen a negligible decrease of 0.49% in chemical river quality since 2000.	'Good to fair' includes categories very good, good, fairly good, and fair. Across the Districts there little variance, only 3% between the top five. However, Barrow suffers the greatest with 77.66% of rivers having good to fair chemical quality.
	Flood risk area.	Currently unavailable for Cumbria.	None currently available		
NR3: To restore and protect land and soil (SEA: Soil)	Amount of high quality agricultural land lost through wind energy development.	Currently unavailable for Cumbria.	None currently available		
	Number of wind energy developments located on brownfield land.	Currently unavailable for Cumbria.	None currently available		
	Sales of secondary/recycled aggregates as % of total primary aggregates sold in Plan area.	Currently unavailable for Cumbria.	None currently available		
	Number of soil contamination incidents as a result	Currently unavailable for Cumbria.	None currently available		

SA Objectives	Indicator	Quantified Information for Cumbria	Comparators and Targets (e.g. Regional UK/English/Welsh average)	Trend	Notes/Issues/Constraints
	of wind energy development.				
NR4: To manage mineral resources sustainably and minimise waste (SEA: Air) (SEA: Climatic Factors) (SEA: Soil) (SEA: Water)	% of primary aggregates imported into Cumbria.	Currently unavailable for Cumbria.	None currently available.		
	% of renewable energy generated from waste.	Currently unavailable for Cumbria.	None currently available.		
Building a sustainable economy in which all can prosper					
EC1: To retain existing jobs and create new employment opportunities (SEA Population) (SEA Material Assets)	No of jobs created in the wind energy sector in Cumbria.	Currently unavailable for Cumbria.	None currently available.		
	Numbers of new or extended wind energy developments.	Currently unavailable for Cumbria.	None currently available.		
	% People aged 16-74 unemployed.	2.68%	England and Wales average 5.0%.		
	% People employed in industry.	13%			
EC2: To improve access to jobs (SEA Population) (SEA Material)	Number of new wind energy related business created (focus on those created in high areas)	Currently unavailable for Cumbria.	None currently available.		

SA Objectives	Indicator	Quantified Information for Cumbria	Comparators and Targets (e.g. Regional UK/English/Welsh average)	Trend	Notes/Issues/Constraints
Assets)	of unemployment?				
	% of people who travel to work by public transport.	2.61%	6.5%		
EC3: To diversify and strengthen the local economy (SEA Population) (SEA Material Assets)	Value to the Cumbrian economy of new wind energy development.	Currently unavailable for Cumbria.	None currently available.		

	Option 1: No Action taken/policy/plan implemented SPG (1997) to remain in place				Option 2: Implement Wind Energy SPD			
SA Objective	Short Term	Medium Term	Long Term	Comments/Explanation	Short Term	Medium Term	Long Term	Comments/Explanation
Social progress that recognises the needs of everyone								
SP1: To increase the level of participation in democratic processes	-	-	?	The current Wind Energy SPG (1997) forms the adopted planning guidance for Cumbria. There would not be any formal consultations stages on the document itself until it was reviewed.	+	++	++	The WE SPD will increase the level of participation in democratic processes by allowing the public and other stakeholders to be involved in its development. The WE SPD will be subject to wider consultation through the District Authorities Statements of Community Involvement (SCIs). SCIs require Authorities to consult more widely and increase participation in the planning process through different media to reach a greater audience. This will be particularly beneficial in the medium to long term as SCIs continue to be implemented across Cumbria Local Authorities.
SP2: To improve access to services, facilities, the countryside and open spaces	-	-	-	The 1997 SPG is likely to have only a limited effect on improving access to anything other than the open countryside. There is no specific guidance included in the 1997 SPG on protecting or improving the access to countryside as a result of wind energy development.	-	?	?	The SPD is likely to have only a limited effect on improving access to anything other than the open countryside. There is no specific guidance included in the WE SPD on protecting or improving the access to countryside as a result of wind energy development. Detailed guidance is now included as part of the WE SPD on siting and design and visual impact assessment. These 'checks' on development should provide an opportunity to consider a developments impact on accessing the countryside, for example, will a development create a footpath closure?
SP3: To provide everyone with a decent home	NDR	NDR	NDR	There is no clear or direct relationship between the objectives of the SPG and the SA objective SP3. A tenuous link could be made through the positive impact of jobs, benefits to the local; economy and possible planning gain from	NDR	NDR	NDR	There is no clear or direct relationship between the objectives of the WE SPD and the SA objective SP3. A tenuous link could be made through the positive impact of jobs, benefits to the local; economy and possible planning gain from wind energy

	Option 1: No Action taken/policy/plan implemented SPG (1997) to remain in place				Option 2: Implement Wind Energy SPD			
SA Objective	Short Term	Medium Term	Long Term	Comments/Explanation	Short Term	Medium Term	Long Term	Comments/Explanation
				wind energy development.				development.
SP4: To improve the level of skills, education and training	-	-	-	The 1997 SPG does not mention the potential wider benefits of wind energy development in terms of skills, education and training. The primary focus and scope of the 1997 SPG is to advise developers on the siting and design of wind turbines and minimise the impact on the landscape. The SPG has raised awareness and educate developers, officers, councillors and members of the public on issues relating to wind energy developments.	-	-	-	The revised WE SPD does not mention the potential wider benefits of wind energy development in terms of skills, education and training. The primary focus and scope of the revised WE SPD is to advise developers on the siting and design of wind turbines and minimise the impact on the landscape. Developers should also be encouraged to consider how they might maximise the educational value of their schemes by improving skills and offering training schemes. The production of the WE SPD will raise awareness and educate developers, officers, councillors and members of the public on issues relating to wind energy developments.
SP5: To improve the health and sense of well-being of people	-	-	-	By its very nature, wind energy development is likely to have some impact on the landscape that some may regard as negative and therefore affect health and well-being. It would only be possible to assess the direct impact on well-being on a site by site/project by project basis as each development/location will be unique. The primary focus and scope of the 1997 SPG is to advise developers on the siting and design of wind turbines and minimise the impact on the landscape – it does not contain guidance to developers on how to reduce impact on people’s health or sense of well-being.	-	-	?	By its very nature, wind energy development is likely to have some impact on the landscape that some may regard as negative and therefore affect well-being. It would only be possible to assess the direct impact on health and well-being on a site by site/project by project basis as each development will be unique. The primary focus and scope of the revised WE SPD is to advise developers on the siting and design of wind turbines and minimise the impact on the landscape – it does not contain guidance to developers on how to reduce impacts on people’s health or sense of well-being. It is acknowledged that the revised WE SPD seeks to minimise impacts on landscape and as a result should reduce the impact on people and their

	Option 1: No Action taken/policy/plan implemented SPG (1997) to remain in place				Option 2: Implement Wind Energy SPD			
SA Objective	Short Term	Medium Term	Long Term	Comments/Explanation	Short Term	Medium Term	Long Term	Comments/Explanation
								amenity but it is not possible to conclude that this will always be the case. The WE SPD could be improved to cover social issues relating to health and well-being.
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense local history	-	-	-	Similar to the above – by its very nature wind energy development is likely to have some impact on landscape and therefore potentially impact negatively on communities located close to the development. Again, it would only be possible to assess direct impacts on a site by site basis and each development and location will be unique. The SPG does not provide information on community engagement. The scope of the 1997 SPG was defined before it was formulated and a decision was taken to focus on guiding developers on landscape matters only. It was never the intention of the document to provide guidance on the broader potential impacts on communities.	-	-	?	Similar to the above – by its very nature wind energy development is likely to have some impact on landscape and therefore potentially impact negatively on communities located close to the development. Again, it would only be possible to assess direct impacts on a site by site basis and each development and location will be unique. The scope of the revised WE SPD was defined before it was formulated and a decision was taken to focus on guiding developers on landscape and visual impact matters only. It was never the intention of the document to provide guidance on the broader potential impacts on communities. However, guidance could be provided to encourage developers to engage with local communities to enable them to influence any local development and to take local ownership. Guidance could also be provided on community owned developments. This should be addressed should if it be decided that the WE SPD needed to cover wider issues of sustainability – alternatively this might be handled through a separate document.
Effective protection of the environment								

	Option 1: No Action taken/policy/plan implemented SPG (1997) to remain in place				Option 2: Implement Wind Energy SPD			
SA Objective	Short Term	Medium Term	Long Term	Comments/Explanation	Short Term	Medium Term	Long Term	Comments/Explanation
EN1: To protect and enhance biodiversity	-	-	-	The 1997 SPG does not contain a specific section relating to biodiversity. Any guidance provided for assessing wind energy development’s potential impacts is focussed on landscape and visual impact. The guidance does provide information on landscape character areas. Greater protection is usually associated with the more sensitive landscape designations such as SSSIs and AONBs. Detailing where these areas are located means that the guidance might be, indirectly offering some protection to biodiversity. This is an assumption and does not replace guidance that would directly inform developers of sensitive habitats or protected species.	-	-	?	The revised WE SPD does not contain a specific section relating to biodiversity. Any guidance provided for assessing wind energy development’s potential impacts is focussed on landscape and visual impact. The guidance includes the contribution of nature conservation interests when considering landscape capacity such as SSSIs and County Wildlife Sites. Detailing where these areas are located means that the guidance might be, indirectly offering some protection to biodiversity. This is an assumption and does not replace guidance that would directly inform developers of sensitive habitats or protected species. It is acknowledged that the revised WE SPD seeks to minimise impacts on landscape and as a result should reduce the impact on people and their amenity but it is not possible to conclude that this will always be the case. The WE SPD could be improved to cover social issues relating to health and well-being.
EN2: To preserve, enhance and manage landscape quality and character for future generations	+	+	-	The main focus of the 1997 SPG is to provide guidance on landscape and visual impacts. Whilst the SA Objective EN2 specifically tests for a contribution to ‘enhance’ landscape quality and character, in this instance it is more appropriate to concentrate on the ‘management’ of the landscape. Due to the nature of wind energy development, the SPG can only realistically expect to provide guidance that manages impacts on the landscape rather than enhance	+	+	++	The main focus of the revised WE SPD is to provide guidance on landscape and visual impacts. Whilst the SA Objective EN2 specifically tests for a contribution to ‘enhance’ landscape quality and character, in this instance it is more appropriate to concentrate on the ‘management’ of the landscape. Due to the nature of wind energy development, the revised WE SPD can only realistically expect to provide guidance that manages impacts on the landscape rather than enhance landscape character although there may be some opportunity here through the

	Option 1: No Action taken/policy/plan implemented SPG (1997) to remain in place				Option 2: Implement Wind Energy SPD			
SA Objective	Short Term	Medium Term	Long Term	Comments/Explanation	Short Term	Medium Term	Long Term	Comments/Explanation
				landscape character although there may be some opportunity here through the remediation of sites following decommissioning. There is some question over the longer term performance of the 1997 SPG due to the development and evolution of practice and methodology in landscape and visual impact assessment since the SPG was adopted.				remediation of sites following decommissioning. The revised WE SPD includes a full and up-to-date landscape capacity assessment of Cumbria specific to wind energy development and the ability of different landscapes across the County to accommodate it. This provides clear guidance to developers as to where wind energy development will have the least impact. The revised WE SPD also includes guidance for developers on how to carry out a landscape and visual impact assessment. Both these additions to the 1997 guidance result in a more robust document – as developers become more familiar with these approaches in the future the impacts on the landscape from wind energy development in the longer term are expected to be further reduced.
EN3: To improve the quality of the built environment	-	-	-	<p>Similar to EN2, this objective looks for some positive contribution to improving the built environment.</p> <p>The 1997 SPG focuses on the design of wind turbines but only in relation to the effect on the landscape and visual amenity. The SPG does not include a section on sustainable design and construction and the use of local materials.</p>	-	+	?	<p>Similar to the 1997 SPG, the revised WE SPD focuses on the role that good design and siting can play in minimising the impact on the landscape and visual amenity. The revised guidance differs from the 1997 version with the addition of more detailed criteria on the design of infrastructure and ancillary development. This includes adopting principles that will protect features such as archaeological remains. This goes some way to meeting this objective but there is still an absence of clear guidance around the use of sustainable design and construction techniques as well as the use of local materials. There may be some scope to include a section covering these issues.</p>

	Option 1: No Action taken/policy/plan implemented SPG (1997) to remain in place				Option 2: Implement Wind Energy SPD			
SA Objective	Short Term	Medium Term	Long Term	Comments/Explanation	Short Term	Medium Term	Long Term	Comments/Explanation
Sustainable use and management of natural resources								
NR1: To improve local air quality and reduce greenhouse gas emissions	+	+	+	<p>Objective NR1 again seeks a positive contribution by using the word 'improve' air quality. The scope of the 1997 SPG provides little opportunity to actively and directly improve local air quality.</p> <p>The other element of this objective seeks a reduction on greenhouse gases. The SPG can have both direct and indirect influences on this part of the objective. Wind energy is a renewable power source and will therefore contribute to the reduction of greenhouse gas emissions from power generation in Cumbria and the north west. There will of course only be a reduction in greenhouse gas emission if other generating methods are replaced with wind energy and decommissioned. This is unclear at this time.</p> <p>There are also some indirect influences. There is an opportunity to guide developers on the best construction techniques and manufacturing techniques that have the least polluting effects in terms of climate change gas emissions.</p> <p>The SPG does not include a section on air quality or climate change.</p>	+	+	+	<p>Objective NR1 again seeks a positive contribution by using the word 'improve' air quality. The scope of the revised WE SPD provides little opportunity to actively and directly improve local air quality. The SPD can influence this objective by providing guidance to developers on managing the impact on local air quality from the construction phase of wind energy development.</p> <p>The other element of this objective seeks a reduction on greenhouse gases. The SPD can have both direct and indirect influences on this part of the objective. Wind energy is a renewable power source and will therefore contribute to the reduction of greenhouse gas emissions from power generation in Cumbria and the north west. There will of course only be a reduction in greenhouse gas emission if other generating methods are replaced with wind energy and decommissioned. This is unclear at this time.</p> <p>There are also some indirect influences. There is an opportunity to guide developers on the best construction techniques and manufacturing techniques that have the least polluting effects in terms of climate change gas emissions.</p> <p>The SPD does not include a section on air quality or climate change. There may be some scope to include a section covering these issues.</p>

	Option 1: No Action taken/policy/plan implemented SPG (1997) to remain in place				Option 2: Implement Wind Energy SPD			
SA Objective	Short Term	Medium Term	Long Term	Comments/Explanation	Short Term	Medium Term	Long Term	Comments/Explanation
NR2: To improve water quality and water resources	-	-	-	Objective NR2 also looks for a positive contribution by using the word 'improve' water quality. As with NR1 on air quality, the remit of the 1997 SPG provides little opportunity for the guidance to actively and directly improve water quality and resources. The SPG does not include a section on water quality or resources.	-	-	+	Objective NR2 also looks for a positive contribution by using the word 'improve' water quality. As with NR1 on air quality, the remit of the revised WE SPD provides little opportunity for the guidance to actively and directly improve water quality and resources. There is potential for the SPD to influence objective NR2 by providing guidance to developers on managing the impact on water quality and resources from the manufacturing and construction phase of wind energy development. Guidance could advise developers on the best construction techniques and manufacturing techniques that have the least polluting effects on the hydrology of an area. The revised guidance differs from the 1997 version with the addition of more detailed criteria on the design of infrastructure and ancillary development. This includes adopting principles that will avoid negative impacts on local hydrology. However, the SPD does not include a specific section on water quality or resources. There may be some scope to include a section covering these issues.
NR3: To restore and protect land and soil	-	-	-	The SPG does make reference to Environmental Statements as part of the EIA process stating that an ES should include details of ancillary development and describe mitigation measures. However, the SPG does not include a specific section on land and soil.	-	+	+	There is potential for the revised WE SPD to influence objective NR3 by providing guidance to developers on managing the impact of wind energy development on land and soil. There are 3 areas that guidance could focus on limiting the impact of wind energy development on land and soil. Firstly the planning stage – development should be sited on previously developed land wherever possible. Secondly the construction

	Option 1: No Action taken/policy/plan implemented SPG (1997) to remain in place				Option 2: Implement Wind Energy SPD			
SA Objective	Short Term	Medium Term	Long Term	Comments/Explanation	Short Term	Medium Term	Long Term	Comments/Explanation
								<p>phase, including the impact of different materials used – can materials be from a recycled source – what about decommissioning and reusing materials after the development is removed - this links in with EN3 on the built environment and employing sustainable design and construction techniques. Thirdly, guidance for developers on minimising the direct impact on land and soil from the operational period of the development – in other words, what will the impacts be whilst the development is in service?</p> <p>The SPD does make reference to “avoiding sensitive soils and vegetation, eg peat bogs, heathers and grassland” when describing principles that should be followed when planning infrastructure and ancillary development. However, at this stage due to the remit of the SPD, it does not include a specific section on land and soil. There may be some scope to include a section covering these issues though this is currently unclear.</p>
NR4: To manage mineral resources sustainably and minimise waste	-	-	-	The SPG does not include a specific section on the management of mineral resources or minimising waste.	-	+	+	There are a number of ways in which the revised WE SPD could influence objective NR4. This would involve providing clear guidance to developers on sustainable design and construction techniques and how this might focus the use of recycled aggregates and materials for construction but also how materials might be recovered following decommissioning to reduce waste to landfill.

	Option 1: No Action taken/policy/plan implemented SPG (1997) to remain in place				Option 2: Implement Wind Energy SPD			
SA Objective	Short Term	Medium Term	Long Term	Comments/Explanation	Short Term	Medium Term	Long Term	Comments/Explanation
								However, at this stage due to the remit of the WE SPD, it does not include a specific section on the management of mineral resources or minimising waste. There may be some scope to include a section covering these issues though this is currently unclear.
Building a sustainable economy in which all can prosper								
EC1: To retain existing jobs and create new employment opportunities	-	-	-	The 1997 SPG was formulated under a tight remit of landscape and visual impact. Its scope was never intended to go beyond these areas and therefore the document does not contain specific guidance relating to the local economic implications of wind energy development in Cumbria. There is a brief reference made to short term employment opportunities through the construction/decommissioning phases of development in the background consideration section at the beginning of the document.	-	-	+	<p>The revised WE SPD was initially formulated under a tight remit of landscape and visual impact. Its scope was never intended to go beyond these areas and therefore the document does not contain specific guidance relating to the local economic implications of wind energy development in Cumbria.</p> <p>Indirectly by supporting the growth of wind energy development in Cumbria the WE SPD could support new employment opportunities across the County. In order to better meet the requirements of this objective a specific section should be included guiding developers on maximising their influence on the local economy by employing local people both in designing and manufacturing and constructing/decommissioning wind energy development. There is an opportunity to guide developers to ensure that the variety and quality of employment in Cumbria's energy sector is improved. On top of this developers could be encouraged to support</p>

	Option 1: No Action taken/policy/plan implemented SPG (1997) to remain in place				Option 2: Implement Wind Energy SPD			
SA Objective	Short Term	Medium Term	Long Term	Comments/Explanation	Short Term	Medium Term	Long Term	Comments/Explanation
								existing and developing local businesses and companies. There may be some scope to include a section covering these issues though this is currently unclear. Longer term the SPD would be expected to perform better against this objective if its scope extended out to include socio-economic aspects of wind energy development.
EC2: To improve access to jobs	-	-	-	Similar to EC1 above – the 1997 SPG would not make a significant contribution to meeting the requirements of this objective. The document does not include a specific section to guide developers on maximising the benefits of accessing new employment opportunities through the wind energy industry.	-	-	+	Similar to EC1 above – the WE SPD might expand its scope to include specific guidance on improving access to job opportunities as a result of wind energy development. There may be some scope to include a section covering these issues though this is currently unclear. Longer term the WE SPD would be expected to perform better against this objective if its scope broadened out to include socio-economic aspects of wind energy development. Developers should also be encouraged to consider how they might maximise the accessibility to job opportunities both physically in terms of transportation and in terms of improving skills and offering training schemes. Longer term the WE SPD would be expected to perform better against this objective as its scope extended out to include socio-economic aspects of wind energy development.
EC3: To diversify and strengthen the local	-	-	-	Similar to EC2 above – the 1997 SPG would not make a significant contribution to meeting the requirements of this objective	-	-	+	Similar to EC2 above – the WE SPD might expand its scope to include specific guidance on diversifying and strengthening the local economy as a result of wind energy development.

	Option 1: No Action taken/policy/plan implemented SPG (1997) to remain in place				Option 2: Implement Wind Energy SPD			
SA Objective	Short Term	Medium Term	Long Term	Comments/Explanation	Short Term	Medium Term	Long Term	Comments/Explanation
economy				The document does not include a specific section to guide developers on maximising the benefits of diversifying and strengthening the local economy through the wind energy industry.				In order to do this there are a number of key questions that the WE SPD would need to address. Is the guidance encouraging developers to stimulate and strengthen the local economy by employing local people, contractors and companies and promoting indigenous growth, be innovative and promote entrepreneurship, particularly in rural areas, lead the development of new economic sectors (in renewable energy in this instance). There may be some scope to include a section covering these issues though this is currently unclear. Longer term the SPD would be expected to perform better against this objective if its scope extended out to include socio-economic aspects of wind energy development.
KEY								
-	Guidance currently moving away from the SA objective							
--	Guidance currently moving away from the SA objective significantly							
+	Guidance currently moving towards the SA objective							
++	Guidance currently moving towards the SA objective significantly							
NDR	Guidance Not Directly Relevant to the objective or has no direct relationship							
?	Currently unsure of guidance relationship with the objective							

SA Objective	Baseline Data/Indicator/Targets (where available)	Can the effect be quantified?	Effects over time	Comments / Explanation
Social progress that recognises the needs of everyone				
SP1: To increase the level of participation in democratic processes	Number of local liaison committees in operation.	Yes – through monitoring of SCI targets. Data not currently available.	++	The WE SPD will contribute positively to this indicator by increasing the level of participation in democratic processes by allowing the public and other stakeholders to be involved in its development. The WE SPD will be subject to wider consultation through the District Authorities Statements of Community Involvement (SCIs). SCIs require Authorities to consult more widely and increase participation in the planning process through different media to reach a greater audience. This will be particularly beneficial in the medium to long term as SCIs continue to be implemented across Cumbria Local Authorities.
	Number of Cumbrians who submit a written response to SPD Consultation.	Yes – responses to any planning document will be collated by the Environment Team. Data not currently available.	++	The WE SPD will contribute positively to this indicator by increasing the level of participation in democratic processes by allowing the public and other stakeholders to be involved in its development. Consulting and engaging more closely the public is a key requirement of the planning reforms and will achieve this through carrying out actions contained within the SCIs.
SP2: To improve access to services, facilities, the countryside and open spaces	Car ownership – no specific target but this indicator will be monitored.	Yes – Car ownership levels across the County will continue to be monitored. Car ownership at 75.6% in Cumbria (Census 2001).	NDR	The WE SPD will not have a direct influence on this indicator.
	% of Cumbrian households more than 4km from a bus service.	Yes – through CCC Information Intelligence Unit monitoring. Data not currently available.	NDR	The WE SPD will not have a direct influence on this indicator.
	% of Cumbrian households more than 4km from a train	Yes – through CCC Information Intelligence Unit monitoring.	NDR	The WE SPD will not have a direct influence on this indicator.

SA Objective	Baseline Data/Indicator/ Targets (where available)	Can the effect be quantified?	Effects over time	Comments / Explanation
	service.	Data not currently available.		
	% of Cumbrian households more than 4km from a hospital.	Yes – through CCC Information Intelligence Unit monitoring. Data not currently available.	NDR	The WE SPD will not have a direct influence on this indicator.
	% of Cumbrian households more than 4km from a doctors surgery.	Yes – through CCC Information Intelligence Unit monitoring. Currently 51% in Cumbria.	NDR	The WE SPD will not have a direct influence on this indicator.
	% of Cumbrian households more than 4km from a dental surgery.	Yes – through CCC Information Intelligence Unit monitoring. Currently 48% in Cumbria.	NDR	The WE SPD will not have a direct influence on this indicator.
	% of Cumbrian households more than 2km from a post office.	Yes – through CCC Information Intelligence Unit monitoring. Currently 81.3% in Cumbria.	NDR	The WE SPD will not have a direct influence on this indicator.
	% of Cumbrian households more than 4km from a supermarket.	Yes – through CCC Information Intelligence Unit monitoring. Currently 53% in Cumbria.	NDR	The WE SPD will not have a direct influence on this indicator.
	% of Cumbrian households more than 2km from a Primary School.	Yes – through CCC Information Intelligence Unit monitoring. Currently 82.7% in Cumbria.	NDR	The WE SPD will not have a direct influence on this indicator.
	% of Cumbrian households more than 4km from a Secondary School.	Yes – through CCC Information Intelligence Unit monitoring. Currently 61% in Cumbria.	NDR	The WE SPD will not have a direct influence on this indicator.
	% of Cumbrian homes within 1km of a public footpath or Bridleway.	Yes – through CCC Information Intelligence Unit monitoring.	NDR	The WE SPD will not have a direct influence on this indicator

SA Objective	Baseline Data/Indicator/Targets (where available)	Can the effect be quantified?	Effects over time	Comments / Explanation
		Data not currently available		
SP3: To provide everyone with a decent home	Home ownership in Cumbria.	Yes – through CCC Information Intelligence Unit monitoring. Currently 72.3% in Cumbria.	NDR	The WE SPD will not have a direct influence on this indicator.
	% of Cumbrians living in rented accommodation.	Yes – through CCC Information Intelligence Unit monitoring. Currently 9.2% in Cumbria.	NDR	The WE SPD will not have a direct influence on this indicator.
	% of Cumbrians living in sheltered/social housing.	Yes – through CCC Information Intelligence Unit monitoring. Currently 16% in Cumbria.	NDR	The WE SPD will not have a direct influence on this indicator.
	% of homeless people in Cumbria.	Yes – through CCC Information Intelligence Unit monitoring. Currently 0.36% in Cumbria.	NDR	The WE SPD will not have a direct influence on this indicator.
	% of Cumbrians living in home deemed unsuitable for habitation/lacking amenities.	Yes – through CCC Information Intelligence Unit monitoring. Currently 4.3%% in Cumbria.	NDR	The WE SPD will not have a direct influence on this indicator.
SP4: To improve the level of skills, education and training	Number of environmental education programmes in operation at wind energy sites.	Yes – monitoring of this indicator will be carried out by the District Authorities/County Council. Data not currently available.	+	Whilst the WE SPD does not currently contain a section guiding developers on Wind Energy and education/training/skills. The WE SPD could increase the number of environmental education programmes in operation at wind energy sites. Whilst the SPD cannot do this through direct policy as it is a guidance document there is potential for the guidance to contain a specific section advising developers on the need to make accessing sites for educational purposes.

SA Objective	Baseline Data/Indicator/Targets (where available)	Can the effect be quantified?	Effects over time	Comments / Explanation
	Number of visits by wind energy developers to schools/business.	Yes – monitoring of this indicator will be carried out by the District Authorities/County Council. Data not currently available.	+	Whilst the WE SPD does not currently contain a section guiding developers on Wind Energy and education/training/skills, it could increase the number of visits by wind energy developers to schools/business. Whilst the SPD cannot do this through direct policy as it is a guidance document there is potential for the guidance to contain a specific section advising developers on the need for the wind energy industry in Cumbria to become more closely involved with schools and other educational establishments.
SP5: To improve the health and sense of well-being of people	% of nuisance complaints received relating to wind energy sites.	Yes – monitoring of this indicator will be carried out by the District Authorities/County Council. Data not currently available.	+	The WE SPD will provide clearer guidance to developers on the appropriate siting of wind energy development including development close to residential dwellings. This may be counteracted to an extent by the increased number of wind energy developments expected to be built in Cumbria over the period of the SPD guidance. This is an 'unknown' so it is assumed for the purpose of this exercise that more sensitive and sympathetic siting of wind energy development will have a positive effect on this indicator.
	Population in 'not good' health.	Yes – through CCC Information Intelligence Unit monitoring. 10% in Cumbria (2003).	NDR	The WE SPD will not have a direct influence on this indicator.
	Population with limiting long-term illness.	Yes – through CCC Information Intelligence Unit monitoring. 20% in Cumbria (2003).	NDR	The WE SPD will not have a direct influence on this indicator.
	Population sedentary/taking no exercise.	Yes – through CCC Information Intelligence Unit monitoring. 10% (for Allerdale, Carlisle, Copeland and Eden combined).	NDR	The WE SPD will not have a direct influence on this indicator.

SA Objective	Baseline Data/Indicator/Targets (where available)	Can the effect be quantified?	Effects over time	Comments / Explanation
<p>SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense local history</p>	<p>To increase the % of residents who are satisfied with their neighbourhood as a place to live.</p>	<p>Yes – through CCC Information Intelligence Unit monitoring.</p> <p>94% very satisfied or fairly satisfied in Cumbria.</p>	<p>?</p>	<p>It is unclear at this stage what effect the WE SPD will have on this indicator. The indicator is focussed on an unpredictable and subjective area that is open to many different personal and conflicting viewpoints among Cumbria's population. An increase in the number of wind energy developments in Cumbria may result in less people being satisfied with the area in which they live. This might be offset and mitigated through careful planning, design and siting of wind energy developments and the SPD is very strong on promoting this through its landscape character and visual impact assessment guidance.</p>
<p>Effective protection of the environment</p>				
<p>EN1: To protect and enhance biodiversity</p>	<p>Loss of UK and Cumbria BAP species and area of BAP habitat (and species and habitats named in the Birds and Habitats Directives).</p>	<p>Yes – through information and monitoring from the Cumbria Biological Data Network, the District Authorities/County Council.</p> <p>Data not currently available.</p>	<p>-</p>	<p>Whilst the WE SPD does not currently contain a section guiding developers on Wind Energy and Biodiversity, sensitive sites and landscapes are identified affording some protection as a result to certain specific species. This would not offer any protection to the flora and fauna found outside designated sites – indeed it may place more pressure in these areas and development will be encourage to locate away from designated sites. There will also be an opportunity to avoid negative impacts on biodiversity through Environmental Impact Assessment (EIA) as part of the planning process.</p> <p>There is though an opportunity for the SPD to reinforce the importance of Cumbria's biodiversity by setting out a specific section guiding developers on how to avoid and reduce the impacts of wind energy on the flora and fauna of Cumbria. This could be linked to the EIA process by describing to developers what will be required in their Environmental Statements (ES) and what will be covered in the EIA itself.</p> <p>The SPD was developed and written within a defined remit/scope</p>

SA Objective	Baseline Data/Indicator/Targets (where available)	Can the effect be quantified?	Effects over time	Comments / Explanation
				covering landscape and visual issues. There is an opportunity to include guidance within the SPD that would guide developers on wider environmental and sustainability issues.
	Area lost from non-statutory designations, such as County Wildlife Sites.	Yes – through information and monitoring from the Cumbria Biological Data Network, the District Authorities/County Council. Data not currently available.	-	Same comments/explanation as first indicator (above) for objective EN1.
	Area lost from Sites of Special Scientific Interest.	Yes – through information and monitoring from the Cumbria Biological Data Network, the District Authorities/County Council.	-	Same comments/explanation as first indicator (above) for objective EN1.
	Area of lost to wind energy development immediately adjacent to designated areas and sites with protected and priority species.	Yes – through information and monitoring from the Cumbria Biological Data Network, the District Authorities/County Council. Currently unavailable for Cumbria.	-	Same comments/explanation as first indicator (above) for objective EN1.
	Area of land created to support biodiversity as a result of wind energy development.	Yes – through information and monitoring from the Cumbria Biological Data Network, the District Authorities/County Council. Currently unavailable for	-	Same comments/explanation as first indicator (above) for objective EN1. The provision of guidance in the WE SPD on the creation of habitats could benefit a range of flora and fauna, both protected and unprotected in Cumbria.

SA Objective	Baseline Data/Indicator/Targets (where available)	Can the effect be quantified?	Effects over time	Comments / Explanation
EN2: To preserve, enhance and manage landscape quality and character for future generations	Number of wind energy developments located within designated landscape areas (National Parks and Areas of Outstanding Natural Beauty).	Cumbria Yes – through information and monitoring from the District Authorities/County Council. Currently unavailable for Cumbria.	++	The main focus of the SPD guidance is on landscape and guiding developers on how they can go about avoiding/minimising the negative impacts of wind energy development on the landscape. There is an element of uncertainty when assessing the likely effects of the SPD on this indicator. There is likely to be an increase in the number of wind energy developments in Cumbria which may result in greater pressure to build in/close to more sensitive designated landscape areas. At the same time this will be offset and mitigated through careful planning, design and siting of wind energy developments and the SPD is very strong on promoting this through its landscape character and visual impact assessment guidance.
	Number of wind energy developments located adjacent to designated landscape areas.	Yes – through information and monitoring from the District Authorities/County Council. Currently unavailable for Cumbria.	++	Same comments/explanation as above.
	Number of wind energy sites visible from designated landscapes.	Yes – through information and monitoring from the District Authorities/County Council. Currently unavailable for Cumbria.	++	Similar comments to above – there is likely to be pressure for wind energy development on land close to the Lake District and Yorkshire Dales National Parks and the County's 3 AONBs. The National Park comes under its own landscape classification in the current version of the WE SPD. Work is underway to carry out a more detailed landscape character assessment of the National Park and is due to be completed by the end of 2006.
	Loss of key landscape features as defined in the Cumbria Landscape Classification and Cumbria Landscape	Yes – through information and monitoring from the Spatial Planning and landscape team. Currently unavailable for	++	The WE SPD will have a positive effect on this indicator over time providing clear guidance to developers on the areas most sensitive landscapes and affording them greater protection. The WE SPD also provides guidance on carrying out landscape and visual impact assessments.

SA Objective	Baseline Data/Indicator/ Targets (where available)	Can the effect be quantified?	Effects over time	Comments / Explanation
	Strategy.	Cumbria.		
EN3: To improve the quality of the built environment	% of local materials supplied for construction phase.	Currently unavailable for Cumbria.	-	The WE SPD was developed and written within a defined remit/scope covering landscape and visual issues. The SPD does not currently include a section on sourcing construction materials. There is an opportunity to include guidance within the SPD that would guide developers on wider environmental and sustainability issues including sustainable design and construction techniques. Within this there should be clear guidance to developers to use local materials where possible during the construction phase.
	Number of historic sites in each category sited within or adjacent to a wind energy development.	Yes - through information and monitoring from the District Authorities/County Council. 7,681 listed buildings 847 scheduled monuments 19 parks and gardens 115 conservation areas (2004) - battlegrounds (information not currently available for Cumbria).	NDR	The WE SPD has no direct relationship with this indicator and therefore will not have a direct effect on it over time. It is however a useful contextual indicator – the number and location of historic sites will key data for developers when considering constraints at different sites.
	Grade I, II* and II listed buildings at risk sited within or adjacent to a wind energy development.	Yes - through information and monitoring from the District Authorities/County Council. Grade I 185 buildings with 4 (2%) on the Buildings Risk Register (2005). Grade II* 447 buildings with 11 (2%) on the Buildings at Risk	-	The WE SPD was developed and written within a defined remit/scope covering landscape and visual issues. The SPD does not currently include a section on the historic environment. There is an opportunity to include guidance within the SPD that would guide developers on wider environmental and sustainability issues which should include cultural heritage and historic assets of Cumbria. Whilst unlikely to cause damage to built heritage itself, wind energy development has the potential to affect the setting and environment around a listed structure/site of archaeological importance. The SPD should provide clear guidance to developers

SA Objective	Baseline Data/Indicator/Targets (where available)	Can the effect be quantified?	Effects over time	Comments / Explanation
		Register (2005). Grade II – data currently unavailable for Cumbria		to avoid development which would negatively impact upon the setting of listed built historic heritage in Cumbria (this includes parks and gardens).
	Scheduled monuments at risk sited within or adjacent to wind energy development.	Yes - through information and monitoring from the District Authorities/County Council. 912 monuments with 29 (3%) on the Buildings at Risk Register.	-	Same comments/explanation as above.
	Registered parks and gardens at risk sited within or adjacent to wind energy development.	Yes - through information and monitoring from the District Authorities/County Council. Currently unavailable for Cumbria.	-	Same comments/explanation as above.
	Number of conservation areas adjacent to wind energy development.	Yes - through information and monitoring from the District Authorities/County Council. Currently unavailable for Cumbria.	NDR	The WE SPD has no direct relationship with this indicator and therefore will not have a direct effect on it over time - the number and location of conservation areas will be key data for developers when considering constraints at different sites – the character of the settings of Conservation Areas could be affected by wind energy developments.
	Number of traditional buildings renovated/reused as a result of wind energy development.	Yes - through information and monitoring from the District Authorities/County Council. Currently unavailable for Cumbria.	?	The WE SPD may bring about the reuse of some traditional buildings but this is location specific and it is therefore not possible at this time to judge whether the effect on the indicator will be positive or negative.

SA Objective	Baseline Data/Indicator/Targets (where available)	Can the effect be quantified?	Effects over time	Comments / Explanation
	Percentage of conservation areas in local authority area with an up-to-date character appraisal. Yes - through information and monitoring from the County Archaeology Team.	Currently 98% in Cumbria.	NDR	The WE SPD has no direct relationship with this indicator and therefore will not have a direct effect on it over time – it is however a useful contextual indicator.
	Percentage of conservation areas with published management proposals.	Yes - through information and monitoring from the District Authorities/County Council. Currently unavailable for Cumbria.	NDR	The WE SPD has no direct relationship with this indicator and therefore will not have a direct effect on it over time. It is however a useful contextual indicator.
	Percentage of conservation areas with published management proposals.	Yes - through information and monitoring from the District Authorities/County Council. Currently unavailable for Cumbria.	NDR	The WE SPD has no direct relationship with this indicator and therefore will not have a direct effect on it over time. It is however a useful contextual indicator.
Sustainable use and management of natural resources				
NR1: To improve local air quality and reduce greenhouse gas emissions	Estimated emissions CO ₂ (tonnes) from wind energy development construction phases	Currently unavailable for Cumbria.	-	The scope of the revised WE SPD provides little opportunity to actively and directly improve local air quality. The WE SPD can influence this objective by providing guidance to developers on managing the impact on local air quality from the construction

SA Objective	Baseline Data/Indicator/Targets (where available)	Can the effect be quantified?	Effects over time	Comments / Explanation
	Yes – through information and monitoring from the District Authority Planning Teams.			phase of wind energy development. A section to this effect could be included and linked to the requirements of the EIA process.
	Estimated emissions CO ₂ (tonnes) offset from wind energy development.	Currently unavailable for Cumbria.	+	The WE SPD is likely to have a positive influence on this indicator by facilitating more wind energy development.
	Background levels of air pollutants listed in the National Air Quality Strategy.	<p>Yes - through information and monitoring by the District Authorities/County Council.</p> <p>AQMA also established in an area encompassing the A7 between Hardwicke Circus and J44 of the M6, and Brampton Road for a distance of 100m from the Stanwix Bank junction. At Lowther Street (Kendal) the annual mean value for NO₂ is 90.9µg/m³ (2000). An AQMA has been declared.</p>	-	This is relevant to the construction phase of wind energy development but the WE SPD is likely to have a relatively slight impact on this objective as the AQMA are in urban settings. As it stands the WE SPD does not contain guidance for developers on how best to approach issues around transport to and from wind energy construction sites. A section to this effect could be included and linked to the requirements of the EIA process.
	Estimated change in CO ₂ emissions from road traffic locally.	Yes - through information and monitoring from the District Authorities/County Council.	-	This is most relevant to the construction phase of wind energy development but the WE SPD is likely to have a relatively slight impact on this objective. As it stands the WE SPD does not contain guidance for developers on how best to approach issues around transport to and from wind energy construction sites. A section to this effect could be included and linked to the requirements of the EIA process.
	Mode share of work journeys to work	Yes - through information and monitoring from the District	-	This is relevant to the construction phase of wind energy development but the WE SPD is likely to have a relatively slight

SA Objective	Baseline Data/Indicator/Targets (where available)	Can the effect be quantified?	Effects over time	Comments / Explanation
		Authorities/County Council. Car = 63.0% Foot = 14.4% Bus = 5.0% Train/underground = 0.8%		impact on this objective. Again as it stands the WE SPD does not contain guidance for developers on how best to approach issues around transport to and from wind energy construction sites. A section to this effect could be included and linked to the requirements of the EIA process.
NR2: To improve water quality and water resources	Number of wind energy development sites located within groundwater protection zones.	Yes – from the Environment Agency and/or the District Authorities/County Council. Currently unavailable for Cumbria.	-	The WE SPD does not currently include a section guiding developers on water issues. There is potential for the SPD to influence this indicator by providing guidance to developers on siting development away from groundwater protection zones. There could be links made to the EIA process and requirements.
	Number of wind energy developments permitted in flood risk zones.	Yes – from Environment Agency and/or the District Authorities/County Council. Currently unavailable for Cumbria.	-	The WE SPD does not currently include a section guiding developers on water issues. There is potential for the SPD to influence this indicator by providing guidance to developers on siting development away from flood risk areas. There could be links made to the EIA process and requirements.
	Rivers with good to fair biological quality.	Yes – from the Environment Agency. 98.59% (2003)	-	There is potential for the SPD to influence this indicator by providing guidance to developers on managing the impact on water quality and resources from the manufacturing and construction phase of wind energy development. Guidance could advise developers on the best construction techniques and manufacturing techniques that have the least polluting effects on the hydrology of an area as well as the least demand in terms of water abstraction. Again, there could be links made to the EIA process and requirements.
	River with good to fair chemical quality.	Yes – from the Environment Agency. 98.19% (2003)	-	As above.
	Flood risk area.	Yes – from the Environment	NDR	The WE SPD has no direct relationship with this indicator and

SA Objective	Baseline Data/Indicator/Targets (where available)	Can the effect be quantified?	Effects over time	Comments / Explanation
		Agency		therefore will not have a direct effect on it over time. It is however a useful contextual indicator.
	Amount of high quality agricultural land lost through wind energy development.	Yes - through information and monitoring from the District Authorities/County Council. Currently unavailable for Cumbria.	?	There is potential for the WE SPD to influence this indicator by providing guidance to developers on avoiding the highest grade agricultural land. This is unlikely to be significant in Cumbria as much of the farming is of a pastoral nature in the areas most likely to receive planning applications for wind energy developments.
NR3: To restore and protect land and soil	Wind energy developments located on brownfield land.	Yes - through information and monitoring from the District Authorities/County Council. Currently unavailable for Cumbria.	?	There is potential for the WE SPD to influence this indicator by providing guidance to developers on avoiding green field sites where possible and this would have particular relevance to the more built up and urban areas in the County – also disused airfield for example. This is unlikely to be significant in Cumbria as many of the favoured areas for wind energy development are around the higher fells where brownfield sites are very scarce – there may be more relevance here to applications along the more developed coastal fringe.
	Number of soil contamination incidents as a result of wind energy development.	Yes - through information and monitoring from the District Authorities/County Council/ Environment Agency. Currently unavailable for Cumbria.	-	The WE SPD does not currently include a section guiding developers on soil contamination issues. There is potential for the SPD to influence this indicator by making developers aware of best practice construction techniques to avoid soil contamination. There could be links made to the EIA process and requirements.
NR4: To manage mineral resources sustainably and minimise waste	% of renewable energy generated from waste in Cumbria.	Yes - through information and monitoring from the District Authorities/County Council. Currently unavailable for Cumbria.	NDR	The WE SPD has no direct relationship with this indicator and therefore will not have a direct effect on it over time. It is however a useful contextual indicator.

SA Objective	Baseline Data/Indicator/Targets (where available)	Can the effect be quantified?	Effects over time	Comments / Explanation
	% of primary aggregates imported into Cumbria.	Yes - through information and monitoring from the District Authorities/County Council. Currently unavailable for Cumbria.	-	There is potential for the WE SPD to influence this indicator by providing advice to developers on reducing the amount of primary aggregates used in the construction process and encourage recycled materials to be used wherever possible.
Building a sustainable economy in which all can prosper				
EC1: To retain existing jobs and create new employment opportunities	Numbers of new or extended wind energy developments.	Yes - through information and monitoring from the District Authorities/County Council. Currently unavailable for Cumbria	?	There are likely to be an increasing number of wind energy development applications in Cumbria in the future. It is difficult at this time to make a judgement as to direct level of influence the WE SPD might have over this increase.
	% People aged 16-74 Unemployed	Yes – through CCC Information Intelligence Unit monitoring. Cumbria 2.68% England and Wales average 5.0%	+	There is potential for the SPD to influence this indicator by providing advice to developers on how best to engage young people in understanding the wind energy industry and encouraging and informing developers of employing locally and maintaining a sustainable local economy.
	% People employed in industry	Yes – through CCC Information Intelligence Unit monitoring. Cumbria 13%	+	There is potential for the SPD to influence this indicator by providing advice to developers on how best to engage young people in understanding the wind energy industry and encouraging and informing developers of employing locally and maintaining a sustainable local economy.
	Number of new wind energy related business created (focused on those created in high areas of	Yes – through CCC Information Intelligence Unit/ Regeneration Unit. Currently unavailable for	?	It is difficult at this time to make a judgement on the likely impact the WE SPD can have on this indicator as it is location specific. Wind energy development is guided more strongly by other factors than workforce such as the windiest sites – this is likely to mean that new development doesn't necessarily take place close

SA Objective	Baseline Data/Indicator/Targets (where available)	Can the effect be quantified?	Effects over time	Comments / Explanation
	unemployment).	Cumbria		to those areas with the highest unemployment rates. Much of the work associated with wind energy development occurs around the manufacturing and construction phases so there is still an opportunity here for the WE SPD to influence this indicator by seeking to encourage developers/manufacturers to locate in Cumbria (in the areas of highest unemployment) and also to use local contractors.
EC2: To improve access to jobs	% of people who travel to work by public transport.	Yes – through CCC Information Intelligence Unit monitoring. Cumbria 2.61% England and Wales average 6.5%	NDR	There is potential for the SPD to influence this indicator by providing advice to developers on best practice on sustainable travel planning. This includes people who work at a ‘fixed site’ manufacturing products, how employees reach constructions sites and also how maintenance teams operate/travel.
	Value to the Cumbrian economy of new wind energy development.	Yes – through CCC Information Regeneration Team/Intelligence Unit monitoring. Currently unavailable for Cumbria.	?	The WE SPD does not currently include a section on maximising the economic benefits of wind energy development. The value of the wind energy sector to the Cumbrian economy is likely to increase but it is not possible to say at this time how much of this increase can be attributed to the WE SPD directly. There is an opportunity to maximise this benefit through encouraging the industry to locate in Cumbria.
EC3: To diversify and strengthen the local economy	No of jobs created in the wind energy sector in Cumbria.	Yes – through CCC Information Intelligence Unit/Strategic Planning Team. Currently unavailable for Cumbria.	+	In order to influence this indicator a specific section could be included guiding developers on maximising their influence on the local economy by employing local people both in designing, manufacturing, constructing and decommissioning wind energy development. There is an opportunity to guide developers to ensure that the variety and quality of employment in Cumbria’s energy sector is improved. On top of this developers should be encouraged to support existing and developing local businesses and companies.

SA Objective	Baseline Data/Indicator/Targets (where available)	Can the effect be quantified?	Effects over time	Comments / Explanation
KEY				
-	Guidance currently moving away from the SA objective			
--	Guidance currently moving away from the SA objective significantly			
+	Guidance currently moving towards the SA objective			
++	Guidance currently moving towards the SA objective significantly			
NDR	Guidance Not Directly Relevant to the objective or has no direct relationship			
?	Currently unsure of guidance relationship with the objective			

SA Objective	WE SDP Predicted Effects	Scale and Magnitude	Cumulative Effects?	Synergistic Effects?	Links to Key Sustainability Issues in Cumbria	Mitigation	Recommendation (s)
Social progress that recognises the needs of everyone							
SP1: To increase the level of participation in democratic processes (SEA: Population)	<p>Positive contribution through SCI process.</p> <p>Increased stakeholder involvement and engagement</p>	<p>Scale: Cumbria wide consultation.</p> <p>Magnitude; Significant opportunity to engage the public on a sensitive issue.</p>	<p>None likely other than including more people in decision making might lead to a more robust and accepted guidance document.</p>	<p>None likely.</p>	<p>No direct links.</p>	<p>None required.</p>	<p>To make links with the District Authorities SCIs and set out clearly in the WE SPD a section on how consultation works, when the document has been consulted on and how members of the public and other interested stakeholders can participate in the WE SPD process. This will help add context to the document for developers and ensure that they understand the document has broad backing and 'buy-in' from a range of individuals, the public and other groups/organisations and isn't simply an authority driven planning tool.</p>
SP2: To improve access to services, facilities, the countryside and open spaces (SEA: Population)	<p>Many of the indicators used against this objective have no direct relationship with the WE SPD. The guidance could affect access to the countryside but there is no indicator to measure this at this time.</p>	<p>Scale: Potential to affect access to the countryside Cumbria wide.</p> <p>Magnitude: Potential to affect access to areas of land on or close to wind farm development. Risks will be reduced through the requirements</p>	<p>None likely</p>	<p>None likely</p>	<p>'Vulnerability of the landscape' 'National renewable energy targets likely to lead to pressures for more development of wind farms which could affect landscape character and quality'</p>	<p>Rewording/drafting of the WE SPD to include guidance on access to the countryside and avoiding rights of way. Mitigation measure on development prescribed through the EIA process.</p>	<p>To include a short section in the WE SPD guiding developers on access issues.</p> <p>Developers should be made aware of the most sensitive areas vulnerable to loss of access – this will have most impact on access to the countryside where developers should be guided in terms of avoiding footpaths and bridleways and other areas of open access land wherever possible. Developers should be seeking to maintain and</p>

SA Objective	WE SDP Predicted Effects	Scale and Magnitude	Cumulative Effects?	Synergistic Effects?	Links to Key Sustainability Issues in Cumbria	Mitigation	Recommendation (s)
		of the EIA process.					improve access wherever possible.
SP3: To provide everyone with a decent home (SEA: Material Assets)	All of the indicators used against this objective have no direct relationship with the WE SPD but provide useful contextual information about the WE SPD area.	NDR	None likely.	None likely.	No direct links.	None required.	Housing falls outside the remit of the WE SPD.
SP4: To improve the level of skills, education and training (SEA: Population)	Potential for a positive contribution to this objective. Much will depend on whether the WE SPD expands its remit to include guidance on maximising the benefits of wind farm development on education.	Scale: This could affect all wind energy sites across Cumbria. Magnitude: Potential to reach large numbers of people and send out a message about the need for a balanced approach to wind energy development where local landscapes are protected but Cumbria makes its contribution to fighting the impacts of climate change through renewables. Improve training	None likely.	Yes – if wind energy developers are encouraged to interact with schools and improve training and skills to the Cumbrian workforce, this could improve the local economy.	'Loss of young people, particularly graduates' 'Unemployment with higher levels of economic inactivity in West Cumbria and Furness partly linked to large number of incapacity benefit claimants' 'Low unemployment and skills shortage in Eden and South Lakes' 'Low wage economy particularly tourism related jobs' 'Below average share of growth sectors in local economy'	Rewording/drafting of the WE SPD to reflect education and skills. Make links to the strategic regeneration and economic development strategies.	Rewording/drafting of the WE SPD to include guidance on maximising the benefits to the local economy through improving education, skills and training both to schools and the local workforce. Developers should be able to demonstrate some commitment to achieving this objective – there may be scope for this to be a requirement for granting planning permission.

SA Objective	WE SDP Predicted Effects	Scale and Magnitude	Cumulative Effects?	Synergistic Effects?	Links to Key Sustainability Issues in Cumbria	Mitigation	Recommendation (s)
		and job opportunities in sectors in decline in Cumbria.					
SP5: To improve the health and sense of well-being of people (SEA: Human Health)	The WE SPD has the greatest impact on this objective through protecting people's sense of well-being by avoiding high impact and inappropriate wind energy development.	Scale: This is relevant to the whole of Cumbria – wherever wind energy development could take place. Magnitude: Potentially large due to the strong local feeling in opposition to wind farm development and the attachment of local people to their environment and local landscapes. Potentially large negative effect on well-being.	Yes – One wind energy development might in turn lead to another which would exacerbate the impact of the first. The SPD does address this issue looking at cumulative effects of development.	Yes – there is the possibility that careful placement of wind energy development to avoid a certain landscape designation might mean the development is sited near to habitation. The WE SPD is clear though in linking landscape and visual impact together when assessing sites for development.	'Loss of tranquillity' 'Vulnerability of the landscape'	Redrafting of the WE SPD to reflect well-being. Monitor impact from existing development. Technical mitigation through careful planning, design and location. Landscape and visual impact assessment will facilitate this.	Possible inclusion in the WE SPD of a section on the importance of well-being and how poorly planned, poorly sited and managed wind energy development might impact on this. Links should be made to health both physically in terms of possible construction impacts such as increased dust and pollution from vehicles but also mental health through maintain people's well being and avoiding the impacts of noise pollution.
SP6: To create vibrant, active, inclusive and open-minded communities with a strong sense local history	To gauge the effects on this objective some measure of how satisfied people are with their area as a place to live will need to be measured – this will be most	Scale: This is relevant to the whole of Cumbria – wherever wind energy development could take place Magnitude; Same comments	As for objective SP5 above	As for objective SP5 above	As for objective SP5 above	As for objective SP5 above	As for objective SP5 above. Communities close to wind farm developments will only remain open minded and inclusive places in which to live if the developers approach a wind energy project in the right manner. Excessive blight to an area from poorly planned, poorly sited and

SA Objective	WE SDP Predicted Effects	Scale and Magnitude	Cumulative Effects?	Synergistic Effects?	Links to Key Sustainability Issues in Cumbria	Mitigation	Recommendation (s)
(SEA: Population)	relevant close to wind farm development.	as for SP5 above.					poorly managed wind energy developments will affect community spirit and cohesion leading to more divisive communities. Developers should be advised on how to avoid or minimise such impacts through careful and considerate liaison with town/village committees, interest groups and the wider public.
Effective protection of the environment							
EN1: To protect and enhance biodiversity (SEA: Biodiversity, flora and fauna)	The overall score against the biodiversity indicators in the prediction table was -. The WE SPD scored negatively as there is currently no section guiding developers on biodiversity included in the guidance.	Scale: This is relevant to the whole of Cumbria – wherever wind energy development could take place Magnitude: The WE SPD needs to be stronger on biodiversity to guide developers at an early stage on the issue. Impacts will be greatly mitigated through the requirements of the EIA process.	Yes – there are many potential cumulative effects. Ecosystems can operate close to their minimum sustainable thresholds. A relatively small impact in one area could have large scale and far reaching effects.	Yes – there is the potential for many synergistic effects. One example is that Cumbria depends on its natural beauty, including its biodiversity for tourism. Any loss of tranquillity, landscape and biodiversity could impact on the tourist economy in Cumbria.	‘High proportion of species identified for national conservation priority’ ‘Large tracts of upland and coastal habitat remain but elsewhere there are declines in the extent (fragmentation) and quality of wildlife habitats and populations for some species’ ‘Unknown impact of climate change possibly leading to outward migration of some species and inward migration of other as average temperatures rise’	Redrafting of the WE SPD to reflect biodiversity. Through the EIA process. Technical mitigation measures delivered and facilitated through the EIA process as a requirement/condition for planning permission.	Whilst it is noted that the WE SPD will afford biodiversity some protection through its landscape guidance, there needs to be more specific attention on biodiversity matters. This might take the form of a separate biodiversity chapter in which developers are encouraged to minimise their impact on biodiversity when designing, locating and constructing wind energy development. Objective EN1 also seeks some enhancement to biodiversity. Developers should be aware that some mitigation measures may be required as a result of the EIA process.

SA Objective	WE SDP Predicted Effects	Scale and Magnitude	Cumulative Effects?	Synergistic Effects?	Links to Key Sustainability Issues in Cumbria	Mitigation	Recommendation (s)
EN2: To preserve, enhance and manage landscape quality and character for future generations (SEA: Landscape)	This is the main focus of the WE SPD. The WE SPD scores well against the landscape objectives and indicators. Landscape impact will be managed through careful planning, siting and design of windfarms. The WE SPD also contains guidance on landscape and visual assessment and guides developers on avoiding the most sensitive landscapes as set out in the landscape strategy for Cumbria.	Scale: This is relevant to the whole of Cumbria – wherever wind energy development could take place. Magnitude: Impact is significantly reduced due to the robust nature of the WE SPD guidance on landscape and visual impact issues and also through the requirements of the EIA process.	Yes – there are many potential cumulative effects. There is potential for several small wind energy developments that would not, in isolation, have a significant effect on this objective to have a large negative impact as a collective. The WE SPD is clear in acknowledging the potential risk of cumulative effects and contains a section on cumulative impact assessment and where and when it will be required.	Yes – there is the potential for many synergistic effects. Tourism is a good example again here – people are drawn to Cumbria for its landscape quality – the potential impact on the national park from peripheral windfarm development could have an affect on the tourist sector.	‘Loss of tranquillity’ ‘Vulnerability of the landscape’ ‘National renewable energy targets likely to lead to pressures for more development of wind farms which could affect landscape character and quality’	Technical mitigation measures delivered and facilitated through the EIA process as a requirement/condition for planning permission.	The WE SPD in its current form already provides robust guidance on landscape and visual impacts but more links could be made to the EIA process.
EN3: To improve the quality of the built environment (SEA: Cultural Heritage)	The overall score against the built environment indicators in the prediction table was negative as there is currently no section guiding	Scale: This is relevant to those areas of Cumbria that contain archaeological heritage as well as conservation areas and listed	Yes – Again there is potential for several small wind energy developments that would not, in isolation have a significant effect on this objective to	None likely	‘Unsympathetic new developments altering historic character and damaging archaeology in some areas’	Redrafting of the WE SPD to reflect the built environment. Technical mitigation measures delivered and facilitated through the EIA	Include a section on the built environment as part of the WE SPD guiding developers on minimising the impact of their developments on archaeology and other built cultural assets in Cumbria. This might include maps detailing the areas most

SA Objective	WE SDP Predicted Effects	Scale and Magnitude	Cumulative Effects?	Synergistic Effects?	Links to Key Sustainability Issues in Cumbria	Mitigation	Recommendation (s)
	developers on the built environment included in the guidance.	buildings – wherever wind energy development could take place Magnitude: Unlikely to be significant due to the requirements placed on developers to protect cultural heritage assets	have a large negative impact as a collective.			process as a requirement/condition for planning permission.	constrained by built heritage and advising developers what will be required as part of the EIA process.
Sustainable use and management of natural resources							
NR1: To improve local air quality and reduce greenhouse gas emissions (SEA: Air) (SEA: Climatic Factors)	There are two elements to this: 1. The effect on local air quality, mainly through the construction of new wind energy development. 2. The wider implication of the WE SPD on climate change and through the release/reduction of CO ₂ as a result of implementing the WE SPD. The WE SPD does not contain a section on climate	Scale: Cumbria wide in terms of local air quality issues but global in terms of climate change impacts. Magnitude: Potential impacts are likely to have trans-boundary effects beyond the County boundary of Cumbria though protection will come through the requirements of the EIA process.	Yes – there are many potential cumulative effects. Cumulative effects might include the impacts on biodiversity – if climate change accelerates and cause certain species to migrate and leave Cumbria this could create a positive feedback system or ‘chain reaction’ that could have wider and more catastrophic effects on the ecosystem as a	Yes – there is the potential for many synergistic effects. This objective cuts across all the others in one way or another. It has the clearest links with biodiversity, human health and well-being and sustainable resource management.	(This objective links to many sustainability issues – for full list refer to Appendix 4 of the Scoping Report). ‘Air quality problems in urban areas’ ‘Need to reduce the risk to people and property from flooding (Carlisle, Kendal and Keswick)’ ‘Unknown impact of climate change possibly leading to outward migration of some species and inward migration of other as average temperatures	Redrafting of the WE SPD to reflect air quality and climate change issues. Technical mitigation measures delivered and facilitated through the EIA process as a requirement/condition for planning permission.	Include a section on air quality and climate change. This section should make clear links to the requirements of the EIA process but there might also be scope to include a more contextual background section on wind energy and climate change and make links to regional targets for renewables and our responsibility to reduce greenhouse gases on the national and global scale. More specific guidance could be included on: <ul style="list-style-type: none">• Sustainable Design and Construction and sourcing local materials.• Minimising pollution from

SA Objective	WE SDP Predicted Effects	Scale and Magnitude	Cumulative Effects?	Synergistic Effects?	Links to Key Sustainability Issues in Cumbria	Mitigation	Recommendation (s)
	<p>change or air quality and therefore scored poorly against this objective. Despite this it is acknowledged that the WE SPD aims to steer wind energy development away from the most sensitive areas and encourages developers to site their development in areas that will reduce negative effects on the environment. It is unclear at this time what effect this will have on the number of wind energy applications made and the number that gain planning consent. Should the wind power generation capacity across Cumbria increase as a result of implementing the WE SPD this will clearly result in a positive effect with</p>		<p>whole. Another example is the potential effect of climate change on flooding – whilst a sea level rise of 1 metre may be mitigated against a further rise of 10 centimetres might render large areas uninhabitable.</p>		<p>rise' 'Significant pressure on rivers, lakes and tarns from diffuse sources of pollution (agricultural wastes, fertilizers and run off from drains and road surfaces, coupled with some air pollution)'</p>		<p>construction traffic and making links with local air quality and human health – sustainable construction traffic planning. It should be noted that many of the adverse effects of the manufacturing and construction phases will be mitigated indirectly through the positive contribution that wind energy can make to meeting increased energy demands. This is likely to lead to a reduction in demand for fossil fuel power generation and should significantly outweigh the negative impacts of manufacturing and construction related pollution.</p>

SA Objective	WE SDP Predicted Effects	Scale and Magnitude	Cumulative Effects?	Synergistic Effects?	Links to Key Sustainability Issues in Cumbria	Mitigation	Recommendation (s)
	regards objective NR1.						
NR2: To improve water quality and water resources (SEA: Water)	The WE SPD does not contain a specific section on water quality and resources. There is brief reference made to local hydrology issues. Because of this the WE SPD generally scored poorly against the indicators relating to this objective.	<p>Scale: This is relevant to the whole of Cumbria – wherever wind energy development could take place There is the potential for trans-boundary impacts to occur with this objective – pollution incidents that occur with Cumbria could affect watercourses downstream outside the County boundary.</p> <p>Magnitude: Unlikely to be significant due to the requirements place on developers to protect the water environment through the EIA process.</p>	<p>Yes – there are many potential cumulative effects.</p> <p>Small amounts of pollution could have a significant effect on aquatic flora and fauna. There is potential for several small wind energy developments that would not, in isolation, have a significant effect on this objective to have a large negative impact as a collective.</p>	<p>Yes – there is the potential for many synergistic effects.</p> <p>This objective is cross cutting and could potentially influence many other such as human health, biodiversity, managing resources and access to services (water as a resource)</p>	‘Significant pressure on rivers, lakes and tarns from diffuse sources of pollution (agricultural wastes, fertilizers and run off from drains and road surfaces, coupled with some air pollution)’	<p>Redrafting of the WE SPD to reflect water quality and resource issues.</p> <p>Technical mitigation measures delivered and facilitated through the EIA process as a requirement/condition for planning permission.</p>	<p>Broaden the scope of the WE SPD to take greater account of wind energy’s relationship with the water environment. Again links could be made with the requirements of the EIA process relating to water with a focus on the likely sources of pollution and demands on abstraction from the construction phases. Information and guidance could signpost to other sources, such as illustrated maps from the Environment Agency detailing groundwater protection zones and areas of high pollution incidence.</p>
NR3: To	The WE SPD does	Scale: This is	Yes – there is the	Yes – there is the	Pressure to continue to	Redrafting of the WE	Broaden the scope of the WE

SA Objective	WE SDP Predicted Effects	Scale and Magnitude	Cumulative Effects?	Synergistic Effects?	Links to Key Sustainability Issues in Cumbria	Mitigation	Recommendation (s)
restore and protect land and soil (SEA: Soil)	not contain a specific section on protecting soils. There is brief reference made to protecting sensitive soils such as peat bogs. Because of this the WE SPD generally scored poorly against the indicators relating to this objective.	relevant to the whole of Cumbria – wherever wind energy development could take place. Magnitude: Unlikely to be significant due to the requirements placed on developers to protect soils through the EIA process.	potential for cumulative effects. Increased risk of wider impacts from the cumulative effects of more than one wind energy development. Soil contamination or loss through erosion from the cumulative impacts of more than one wind energy development could cause significant and unpredicted damage. The WE SPD is clear in acknowledging the potential risk of cumulative effects and contains a section on cumulative impact assessment and where and when it will be required.	potential for synergistic effects. Soil pollution can have implications on ecology and human health. Primary minerals abstraction from quarry sites can also affect heath, visual impact, landscape character and well-being.	supply scarce mineral resources to meet national demand (gypsum and skid resistant road stone). The need to meet mineral demand by substituting secondary and recycled material for primary aggregates. Vulnerability of nutrient rich lakes and nutrient poor lakes (and their resident species).	SPD to reflect soil quality and resource issues. Technical mitigation measures delivered and facilitated through the EIA process as a requirement/condition for planning permission.	SDP to take account of soil pollution and resource issues. Developers should be guided and encouraged to take the necessary mitigation measures to avoid soil pollution incidents as a result of the manufacturing, construction and operational phases of wind farm development. Links can again be made to the requirements of the EIA process.
NR4: To manage mineral resources sustainably and minimise	The WE SPD does not contain a specific section on managing mineral resources sustainably and	Scale: This is relevant to the whole of Cumbria – wherever wind energy development	Yes – there is the potential for cumulative effects. Increased risk of wider impacts from	Yes – there is the potential for synergistic effects. Demand for primary aggregates	Pressure to continue to supply scarce mineral resources to meet national demand (gypsum and skid resistant road stone)	Redrafting of the WE SPD to reflect mineral and waste sustainability issues. Technical mitigation	The WE SPD should take account of mineral and waste issues and guide developers on how to take a sustainable approach to the management of mineral resources and the

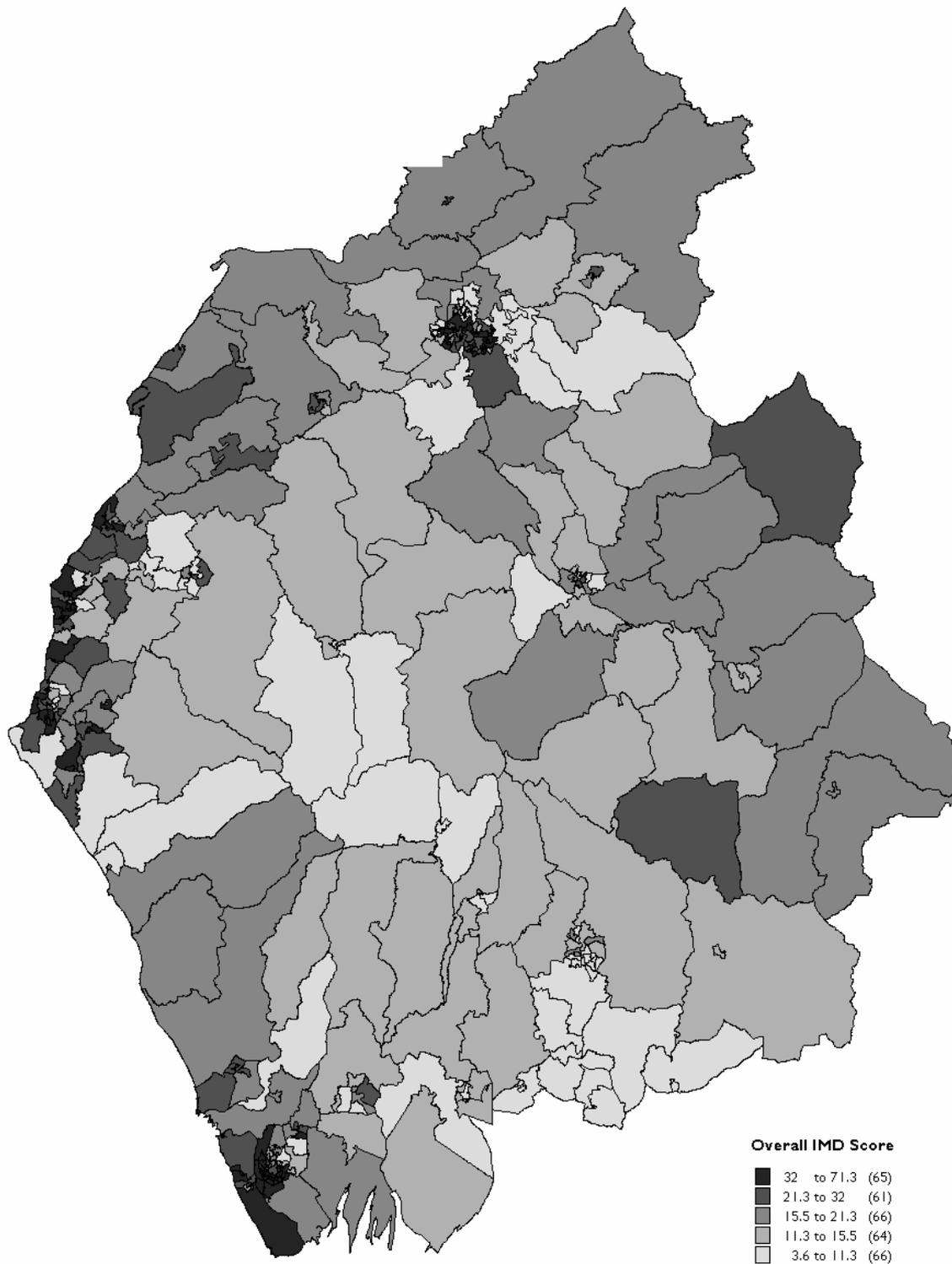
SA Objective	WE SDP Predicted Effects	Scale and Magnitude	Cumulative Effects?	Synergistic Effects?	Links to Key Sustainability Issues in Cumbria	Mitigation	Recommendation (s)
<p>waste (SEA: Air) (SEA: Climatic Factors) (SEA: Soil) (SEA: Water)</p>	<p>minimising waste. Because of this the WE SPD does not currently provide protection to soils or encourage the increased use of recycled aggregates.</p>	<p>could take place but has wider impacts in terms of resource use.</p> <p>Magnitude: Potentially great as a large number of wind farms will be resource intensive during manufacturing and construction.</p>	<p>the cumulative effects of more than one windfarm.</p>	<p>will result in increased quarrying with potential knock-on effects for human health, biodiversity, visual impact, landscape character and well-being.</p>	<p>The need to meet mineral demand by substituting secondary and recycled material for primary aggregates</p> <p>'Pressure responding to regulations preventing waste going to landfill'</p>	<p>measures delivered and facilitated through the EIA process as a requirement/condition for planning permission.</p>	<p>minimisation of waste. Whilst energy from waste is outside the remit of the WE SPD, waste issues can still be addressed by guiding and encouraging developers to adopt practices that seek to minimise waste and used recycled material through the manufacturing, construction and operational phases of wind energy development.</p>
<p>Building a sustainable economy in which all can prosper</p>							
<p>EC1: To retain existing jobs and create new employment opportunities (SEA Population) (SEA Material Assets)</p>	<p>Generally the WE SPD has a positive influence on the economic SA objectives. By bringing in a new industry to Cumbria there is the potential for significant benefits to the local economy. Questions remain about how many jobs might be created, whether or not energy companies will</p>	<p>Scale: This is relevant to the whole of Cumbria but is likely to affect the economy of other areas outside the County.</p> <p>Magnitude: There is the potential for a significant job creation in Cumbria as a result of increased wind energy</p>	<p>Yes – there is the potential for positive cumulative effects.</p> <p>Cumulative effects could occur if one company chose to locate in Cumbria this could lead to spin-off companies starting up as a result and therefore create further employment opportunities.</p>	<p>Yes – there is the potential for synergistic effects.</p> <p>Greater numbers and range of employment opportunities is likely to increase earnings and enable people to access more facilities, improve health and standards of housing and boost the levels of education, skills</p>	<p>'Unemployment with higher levels of economic inactivity in West Cumbria and Furness'</p> <p>'Low unemployment and skills shortage in Eden and South Lakes'</p> <p>'Economic vulnerability due to decline of manufacturing & uncertain future of nuclear industry (West Coast & Barrow)'</p>	<p>Redrafting of the WE SPD to reflect the need to ensure the sustainability of the local economy.</p> <p>Mitigation could potentially occur through the refusal to grant planning permission to development deemed likely to have a significant negative effect on the local economy.</p>	<p>The WE SPD could make clearer the links between the local economy and potential positive impacts of the wind energy sector.</p> <p>Links could be made to regeneration initiatives and strategies in place in Cumbria.</p> <p>Developers should be encouraged to sustain the local economy through employing local contractors.</p> <p>Opportunities should be explored to link planning conditions/obligations for wind</p>

SA Objective	WE SDP Predicted Effects	Scale and Magnitude	Cumulative Effects?	Synergistic Effects?	Links to Key Sustainability Issues in Cumbria	Mitigation	Recommendation (s)
	locate in Cumbria and the wider spin offs to other sectors like the manufacturing, construction and tourist industry.	development. It remains to be seen whether companies will chose to locate in the County or employ the local workforce and contractors.		and training in the wind energy sector.			energy development consent and demonstrating a positive impact on the local economy through job creation.
EC2: To improve access to jobs (SEA Population) (SEA Material Assets)	Access to jobs will largely be improved through increasing the numbers and types of jobs available. Physical access to employment opportunities will be improved by the careful location of potential new wind energy job opportunities in the areas of greatest need.	Scale: This is relevant to the whole of Cumbria but is likely to affect the economy of other areas outside the County. Magnitude: Much will depend on the ability to influence developers to locate in Cumbria and employ local people through the various phases of wind energy development.	See EC1 above	See EC1 above	'Increasingly frequent relocation of jobs outside the county (and the country)' 'Low wage economy particularly tourism related jobs'	Redrafting of the WE SPD to reflect the need to ensure the sustainability of the local economy. Developers should demonstrate a commitment to improving access to jobs to those people in those areas that need it most.	Developers should be made aware of the need to diversify the Cumbrian economy and the role they can play in helping to achieve this. Renewable energy represents a new and growing industry that could increase the access to new employment opportunities in Cumbria. Developers should be encouraged through the WE SPD to improve the sustainability of their development by maximising their positive impacts on the local economies. It should be made clear that this is part of committing to Cumbria and creating good links and relationships with local communities.
EC3: To diversify and strengthen the local economy (SEA	The WE SPD does not currently include a section on the broader impacts and relationship that	Scale. This is relevant to the whole of Cumbria but is likely to affect the economy of other	See EC1 above	See EC1 above	'Below average share of growth sectors in local economy' 'Limited research and development facilities'	Redrafting of the WE SPD to reflect the need to ensure the sustainability of the local economy. Leverage applied	In order to influence this indicator a specific section could be included in the WE SPD guiding developers on maximising their influence on the local economy by

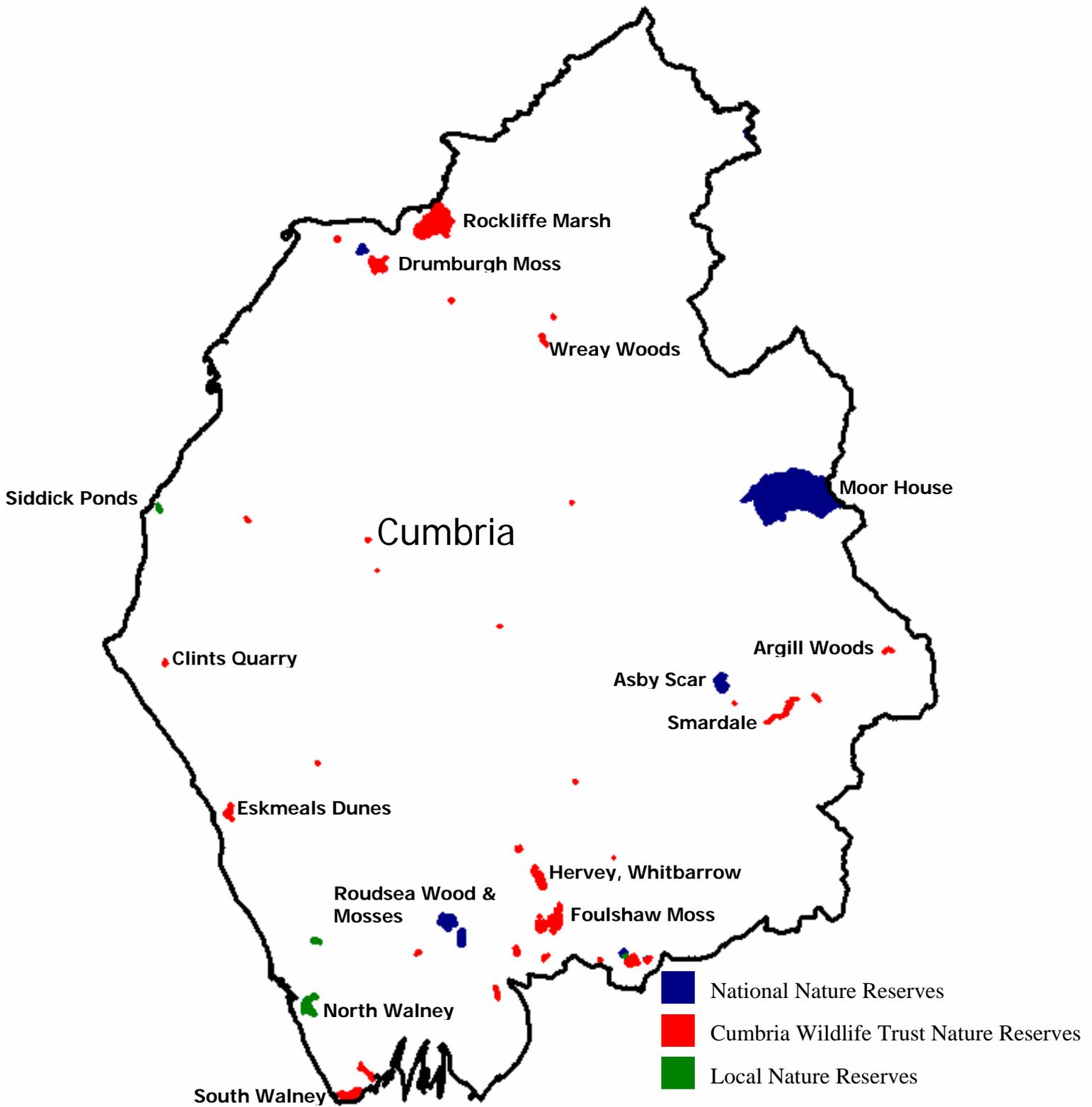
	WE SDP Predicted Effects	Scale and Magnitude	Cumulative Effects?	Synergistic Effects?	Links to Key Sustainability Issues in Cumbria	Mitigation	Recommendation (s)
Population) (SEA Material Assets)	wind energy development in Cumbria will have on the County's economy. The effects of this might be that developers do not fully understand why and how they could help achieve this objective.	areas outside the County. Magnitude: See EC2 above.			<p>'Gross Value Added growing more slowly than the rest of the UK causing the economy to under perform and a widening of regional disparities of wealth'</p> <p>'Recent farming crises causing problems for agriculture coupled with unique problems of farming in upland areas (falling incomes and the labour intensive nature of the work)'</p>	through the planning system to help achieve the objective. (See EC1 and EC2 above)	employing local people both in designing, manufacturing and constructing/decommissioning wind energy development. There is an opportunity to guide developers to ensure that the variety and quality of employment in Cumbria's energy sector is improved. On top of this developers should be encouraged to support existing and developing local businesses and companies.

Baseline Data Context Maps

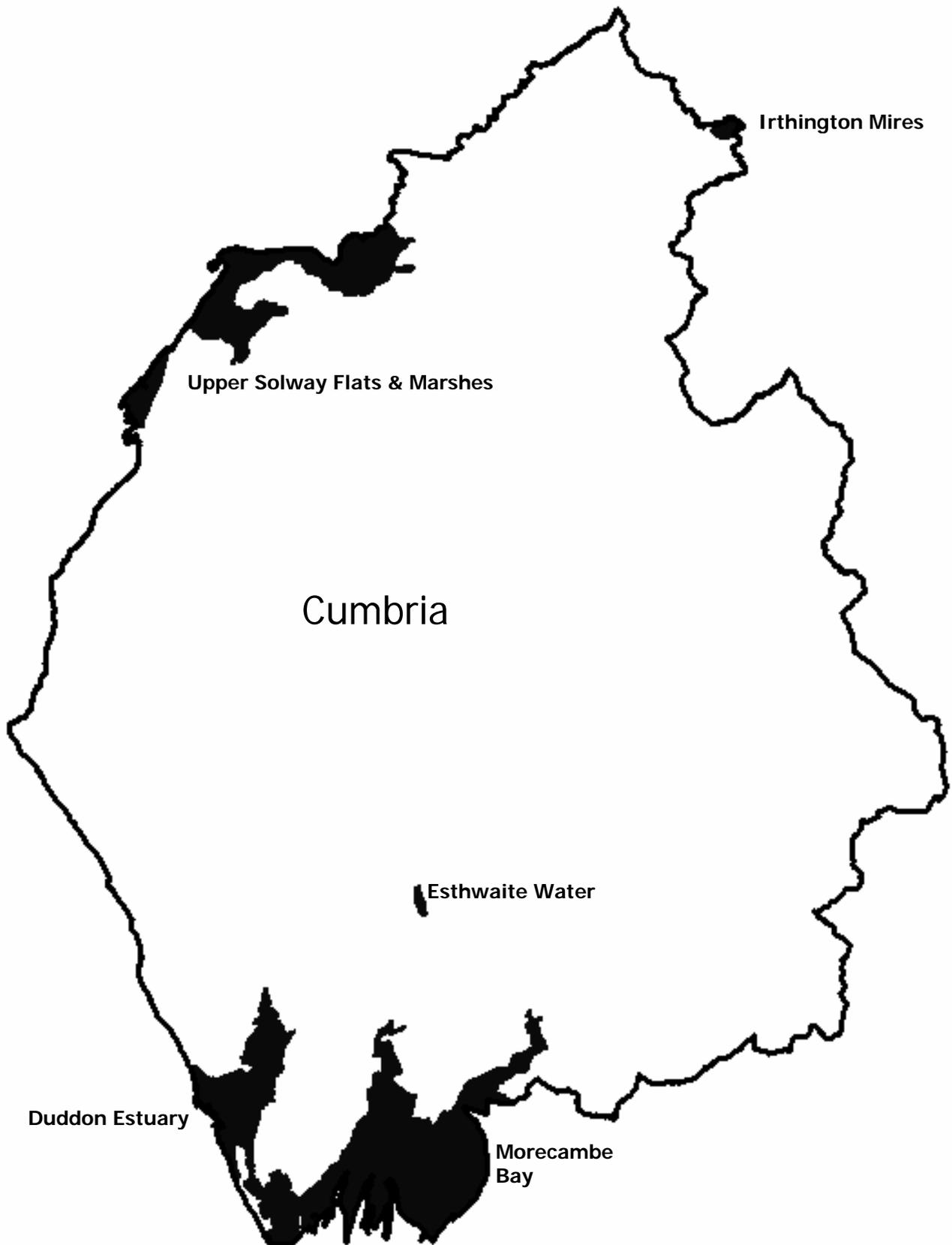
Index of Multiple Deprivation (IMD) Overall Scores for Cumbria



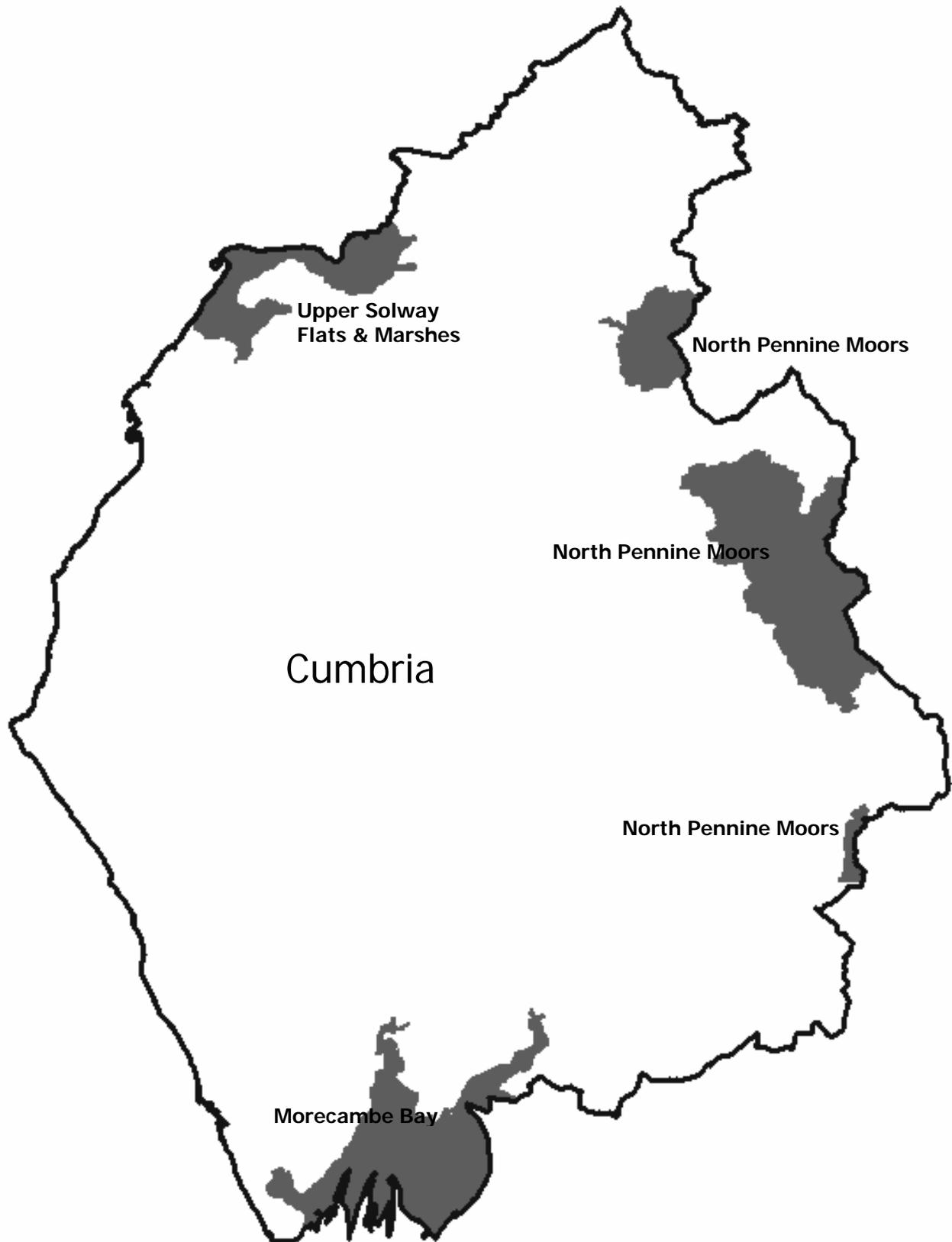
Nature Reserves in Cumbria



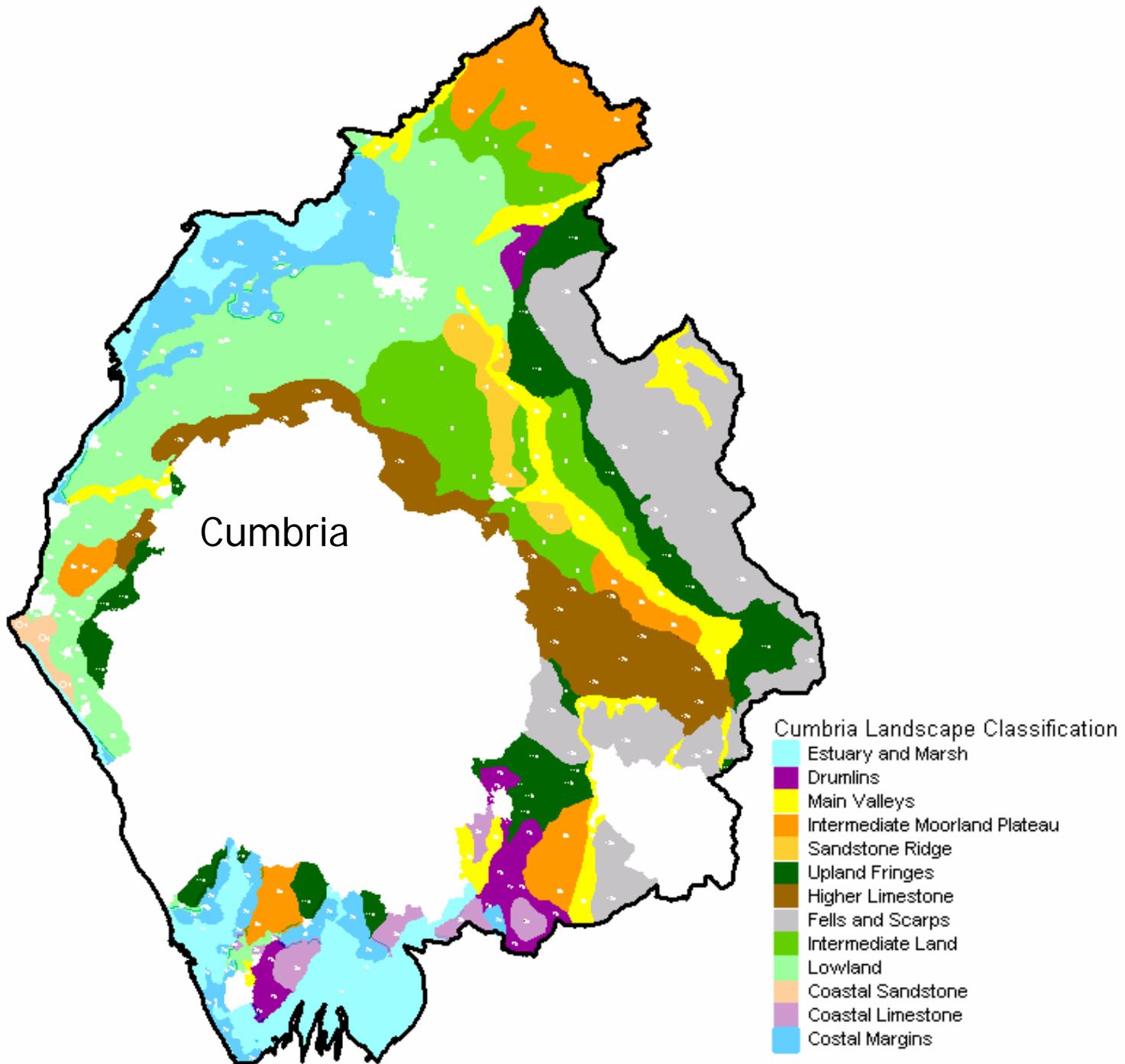
RAMSAR Sites in Cumbria



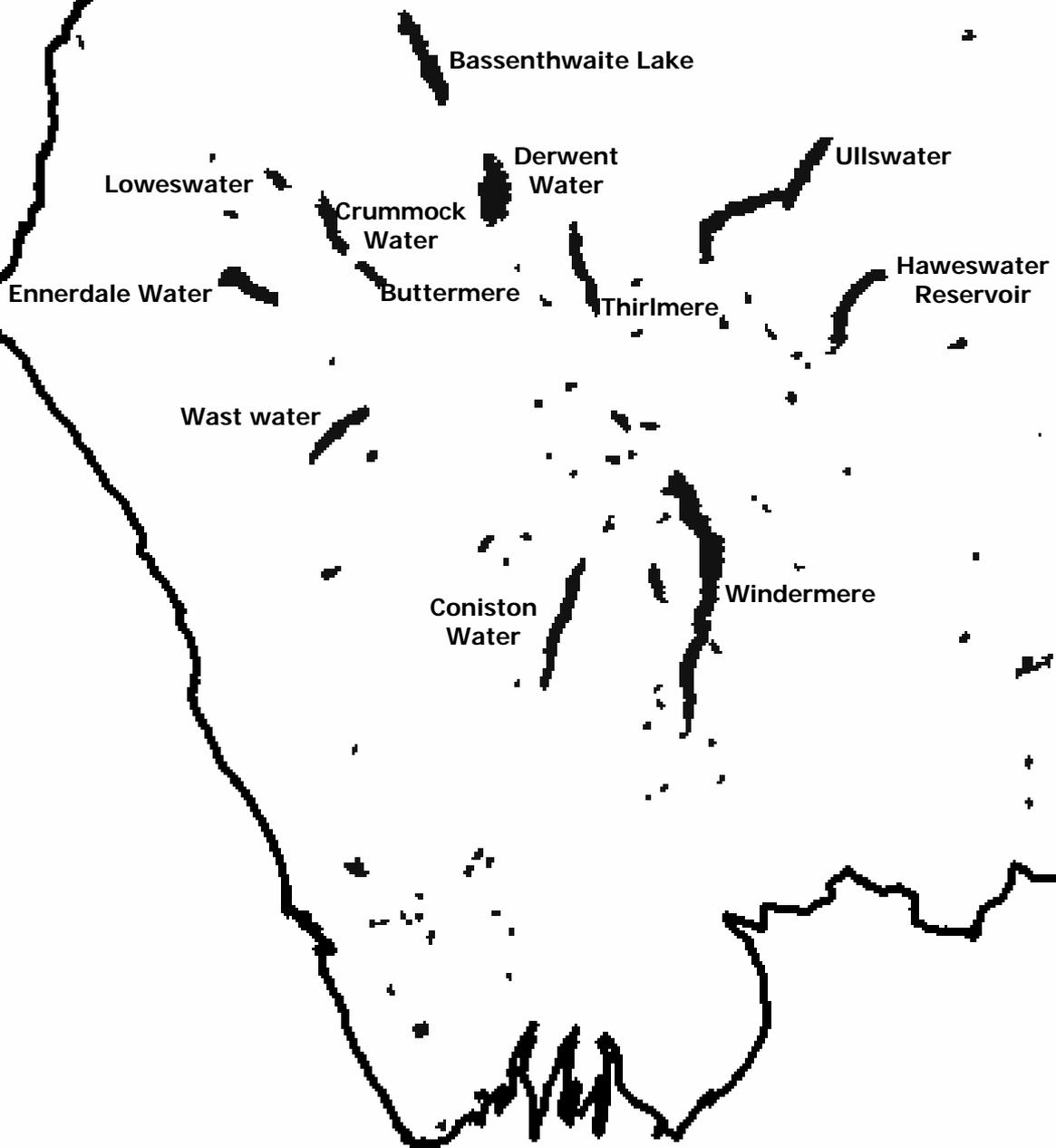
Special Protection Areas in Cumbria



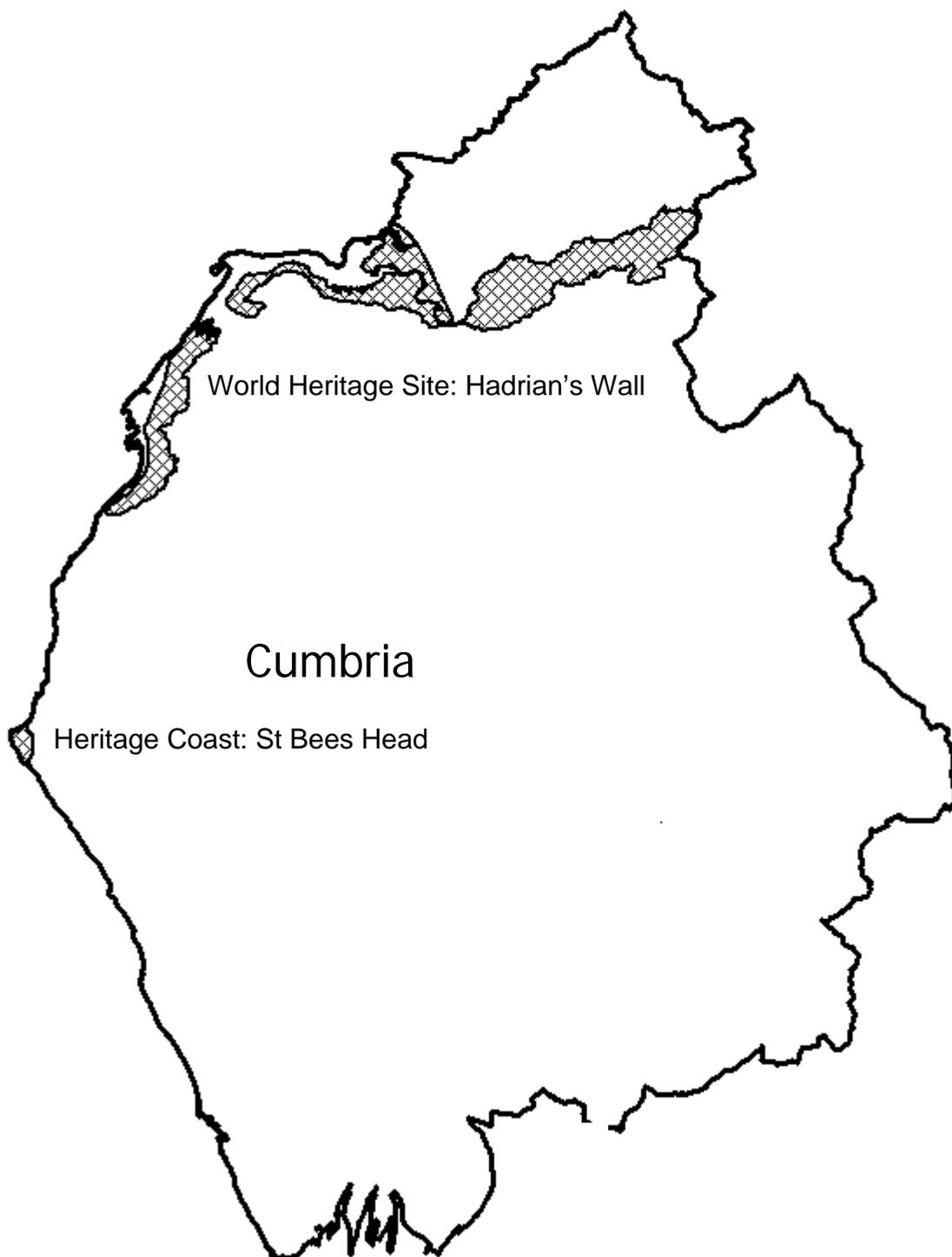
Cumbria Landscape Classification



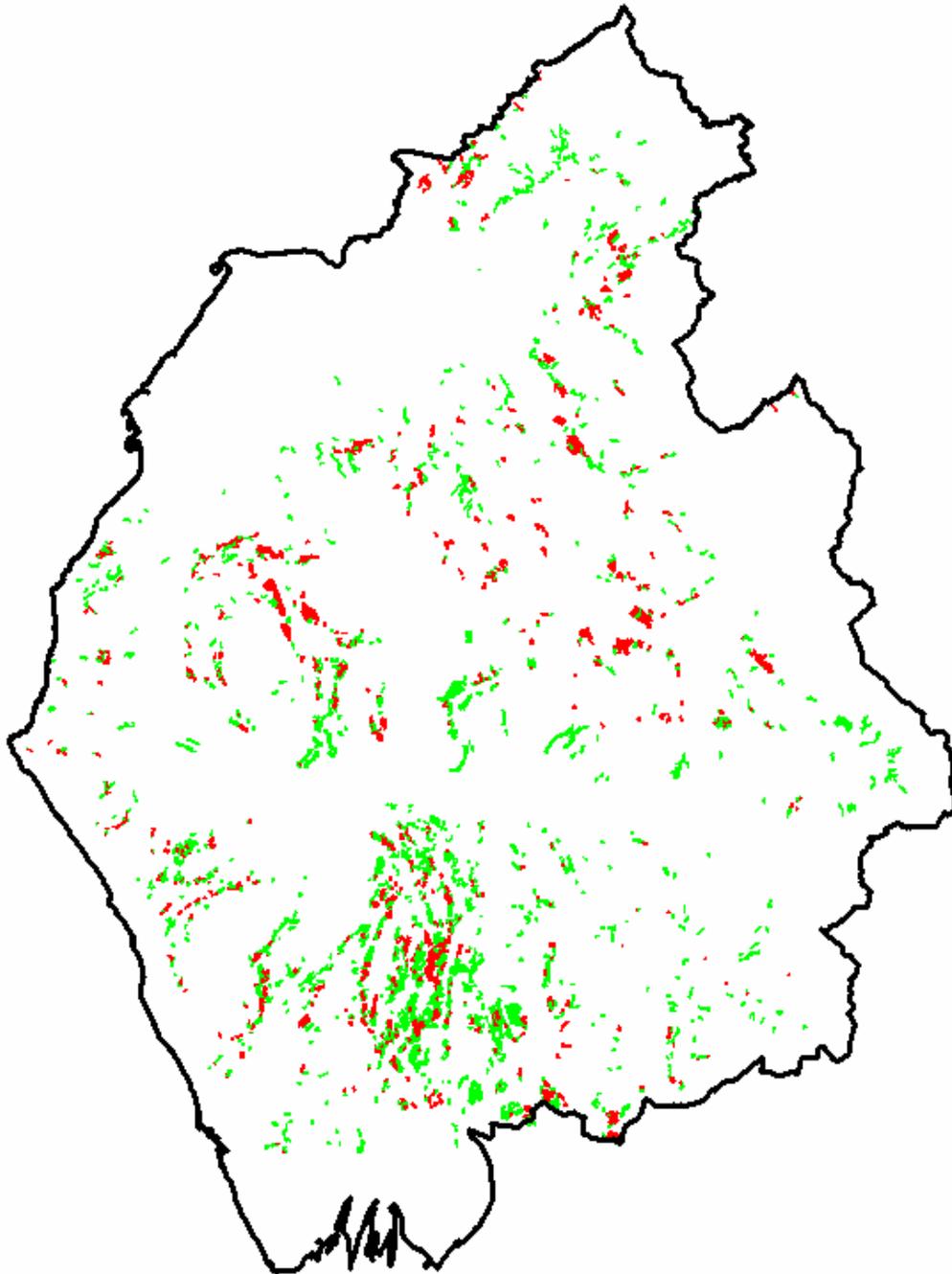
Cumbria's Primary Lakes and Reservoirs



World Heritage & Heritage Coast Sites in Cumbria

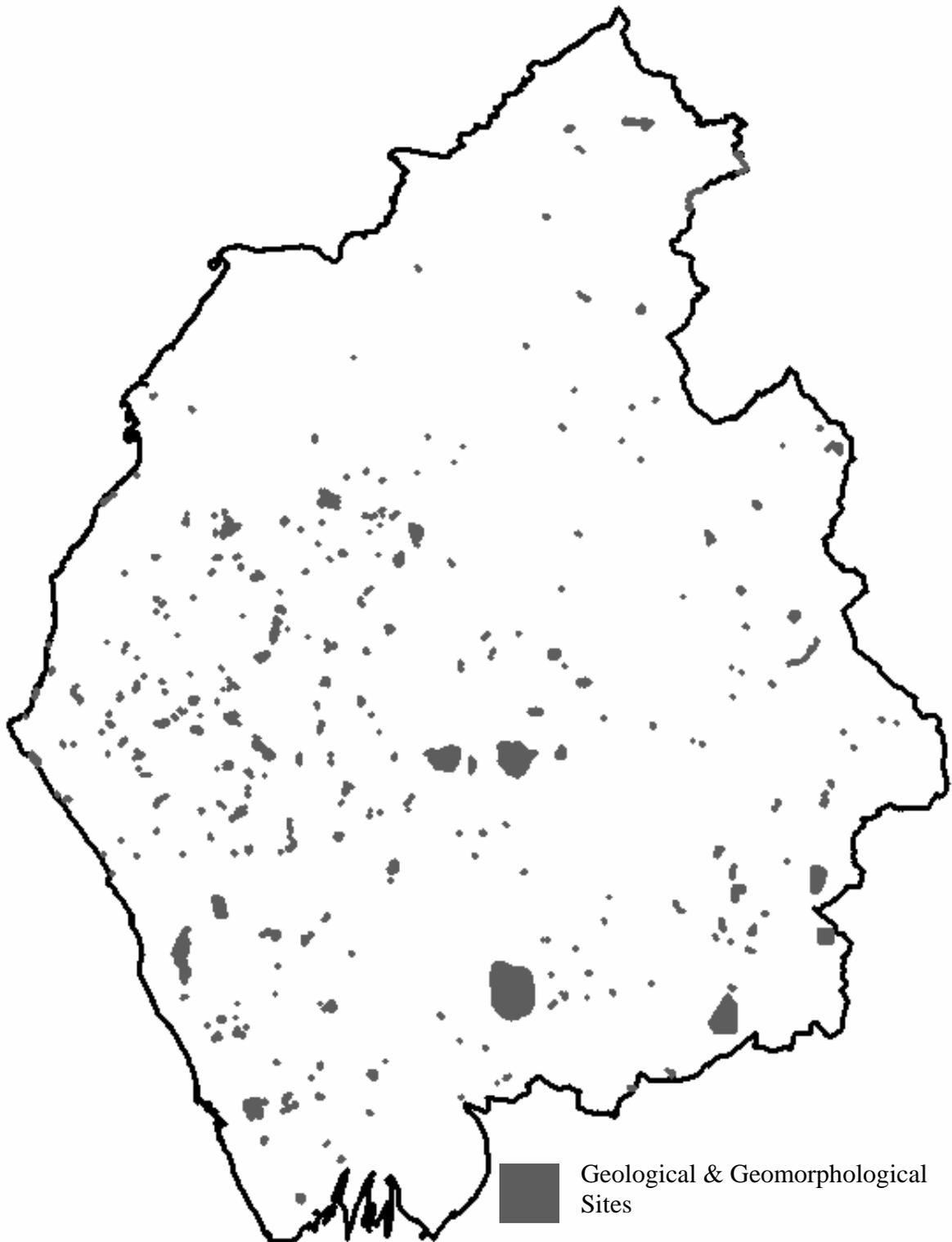


Ancient Woodlands in Cumbria

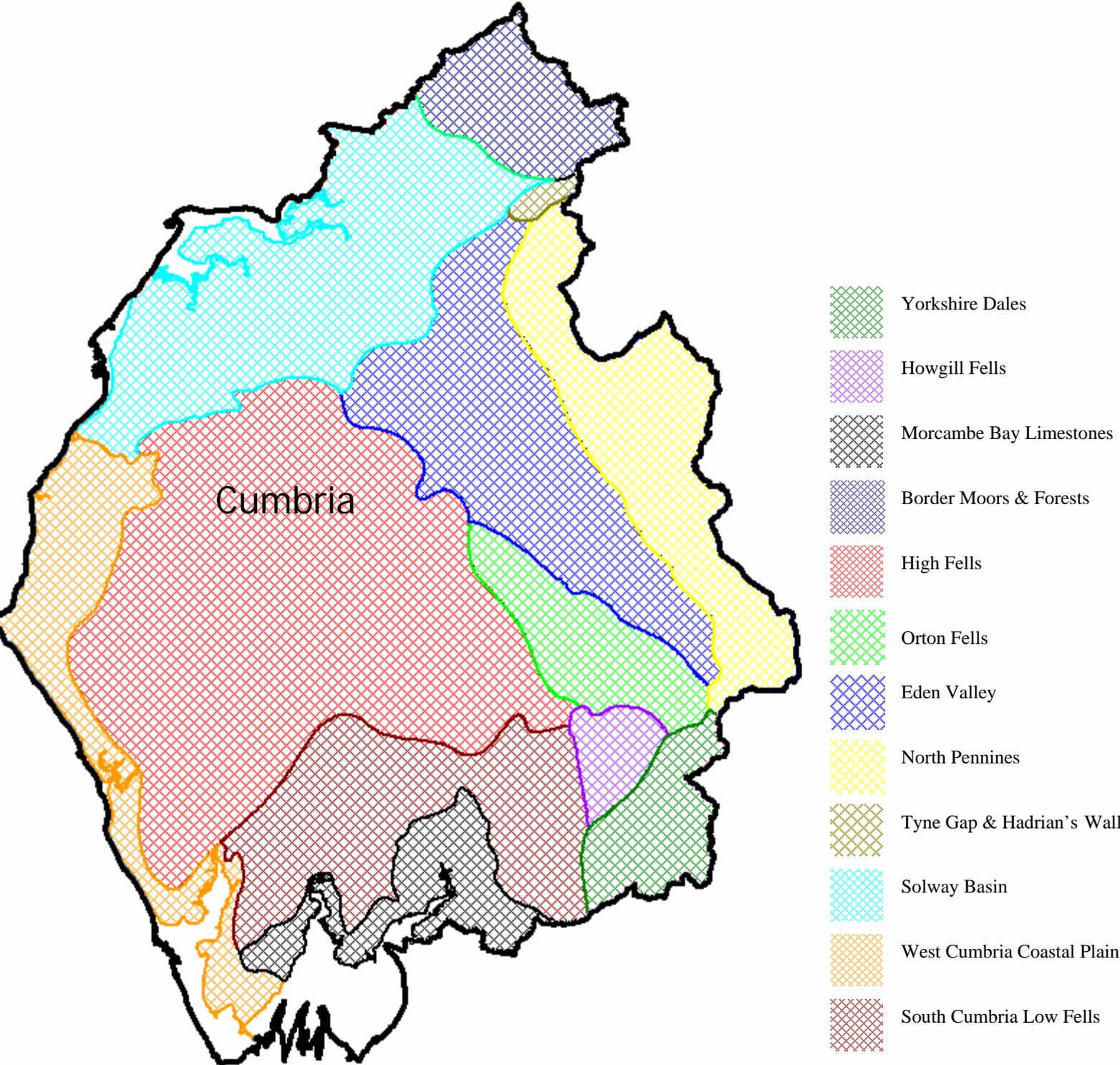


- Ancient Replanted Woodland
- Ancient and Semi-Natural Replanted Woodland

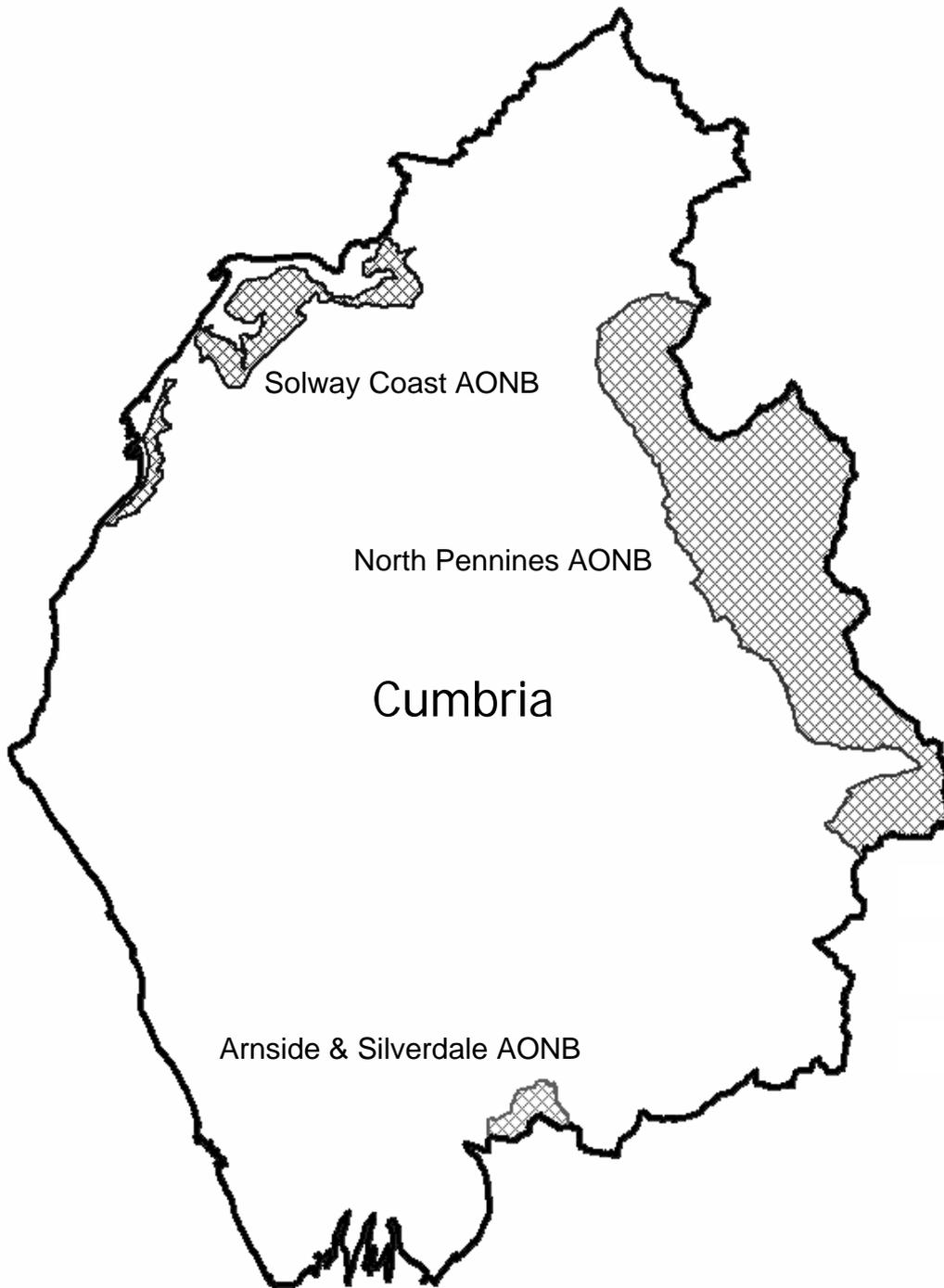
Locations of Geological & Geomorphological Sites in Cumbria



Cumbria Character Areas



Areas of Outstanding Natural Beauty in Cumbria



References

- 1) Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents, ODPM, London. November 2005.
- (2) Draft Cumbria Wind Energy Supplementary Planning Document 2006.
- (3) SEA Directive – European Directive 2001/42/EC “on the assessment of the effects of certain plans and programmes on the environment”.
- (4) The Environmental Assessment of Plans and Programmes Regulations 2004 (Statutory Instrument 2004 No.1633).
- (5) Cumbria Wind Energy Supplementary Planning Document – Sustainability Appraisal Stage A, Scoping Report (January 2006).
- (6) Cumbria Wind Energy Supplementary Planning Document – Sustainability Appraisal Stage B, Developing and refining options, predicting and assessing effects.
- (7) The Town and Country Planning (Local Development) (England) Regulations 2004 (Statutory Instrument 2004 No. 2204).
- (8) Planning Policy Statement 12: Local Development Frameworks. ODPM, London, 2004.

Glossary/Abbreviations

LDD – Local Development Document

LDF- Local Development Framework

ODPM – Office of The Deputy Prime Minister (Now the DCLG – Department for Communities and Local Government).

PPS – Planning Policy Statement

RSS – Regional Spatial Strategy

SA – Sustainability Appraisal

SEA – Strategic Environmental Assessment

SPD – Supplementary Planning Document

SPG – Supplementary Planning Guidance

WE SPD – Cumbria Wind Energy Supplementary Planning Document.

4 Statutory Consultees: English Nature, Countryside Agency, Environment Agency and English Heritage. PPS 12 on Local Development Frameworks, ODPM 2004 identifies the 4 statutory consultees as organisations which must be consulted on sustainability appraisal of Local Development Documents in accordance with the town and Country Planning (Local development) (England) Regulations 2004.