Brecon Beacons National Park Management Plan

Second Draft

Sustainability Appraisal Report

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Sustainability Appraisal Report

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Prepared for: Brecon Beacons National Park Authority

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Glossary of terms and abbreviations

AA	Appropriate Assessment is part of the HRA process.
Alternatives	These are different ways if achieving the plan objectives. Also referred to as options.
AONB	Area of Outstanding Natural Beauty. A landscape area of high natural beauty which has special status, and within which major development will not be permitted, unless there are exceptional circumstances. Designated under the 1949 National Parks and Access to the Countryside Act.
AQMA	Air Quality Management Area. An area identified by local authorities where statutory UK air quality standards are being, or are expected to be breached up to the end of 2005.
BBNP	Brecon Beacons National Park.
BREEAM	Building Research Establishment's Environmental Assessment Method.
C4S	Centre for Sustainability.
CCW	Countryside Council for Wales.
CFMP	Catchment Flood Management Plans.
Conservation Area	An area designated under the Planning (Listed Buildings And Conservation Areas) Act 1990 as being of special architectural or historic interest, the character and interest of which it is desirable to preserve and enhance.
Cumulative Effects	The effects that result from changes caused by a project, plan, programme or policy in association with other past, present or reasonably foreseeable future plans and actions. Cumulative effects are specifically noted in the SEA Directive in order to emphasize the need for broad and comprehensive information regarding the effects.
DCLG	Department for communities and local governement, formely the ODPM.
EAW	Environment Agency Wales.
EC	European Commission.
EEC	European Economic Community.
EMS	Environmental Management System.
GHA	Global hectares.
GHG	Greenhouse Gas
HRA	Habitat Regulations Assessment. Required to identify likely impacts on Natura 2000 sites.
Indicator	A means by which change in a system or to an objective can be measured.
IUCN	International Union for Conservation of Nature.
LBAP	Local Biodiversity Action Plan.

LDP	Local Development Plan.
LSOA	Lower Super Output Area
Mitigation	Measures to avoid, reduce or offset the significant adverse effects of the plan on sustainability.
MoD	Ministry of Defence
Monitoring	Activities undertaken after the decision is made to adopt the plan or programme to examine its implementation. For example, monitoring to examine whether the significant sustainability effects occur as predicted or to establish whether mitigation measures are implemented.
Natura 2000 Sites (N2K)	Natura 2000 is the European Union-wide network of nature conservation sites to be established under the Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) – The EC Habitats Directive (on Europa website). Natura 2000 comprises Special Areas of Conservation (SACs) designated under that Directive and Special Protection Areas (SPAs) classified under the Council Directive on the conservation of wild birds (79/409/EEC) – The EC Wild Birds Directive.
NP	National Park.
NPA	National Park Authority.
NPMP	National Park Management Plan.
NTS	Non Technical Summary
Objective	A statement of what is intended, specifying the desired direction of change.
ODPM	Office of the Deputy Prime Minisiter, now the DCLG.
Options	See Alternatives.
PPP	Plans, Policies and Programmes.
PPW	Planning Policy Wales.
Ramsar Sites	Wetlands of international importance designated under the Ramsar Convention (1971).
SA	Sustainability Appraisal. A form of assessment used in the UK (primarily for Regional Planning Guidance and development plans) since the late 1990s. Sustainability Appraisal considers social and economic effects as well as environmental effects.
SAC	Special Area of Conservation as designated under the European Union Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.
SAM	Scheduled Ancient Monument. A nationally important archaeological site included in the Schedule of Ancient Monuments maintained by the Secretary of State for the Environment under the Ancient Monuments and Archaeological Areas Act 1979.
Scoping	The process of deciding the scope and level of detail of the SEA. This also includes defining the environmental / sustainability effects and alternatives that need to be considered, the assessment methods to be used, the structure and contents of the Environmental / Sustainability Report.

Screening	The process of deciding whether a plan or programme requires SEA or an appropriate assessment.
SEA	Strategic Environmental Assessment. A systematic method of considering the likely effects on the environment of policies, plans and programmes.
SEA Directive	Directive 2001/42/EC "on the assessment of the effects of certain plans and programmes on the environment".
SEWTA	South East Wales Transport Alliance.
SPA	Special Protection Area as designated under the European Union Directive 79/409/EEC on the Conservation of Wild Birds.
SPZ	Source Protection Zones.
SSSI	Site of Special Scientific Interest. The best sites for wildlife and geological features in England as designated under the Wildlife and Countryside Act 1981.
SUDs	Sustainable Drainage Systems.
SWWITCH	South West Wales Integrated Transport Consortium.
Target	A specified desired end, stated usually within a specified time-scale.
TRACC	Transport Consortium for Mid Wales Region.
UDP	Unitary Development Plan
UN	United Nations.
WAG	Welsh Assembly Government

Non Technical Summary

Background

A Strategic Environmental Assessment (SEA) has been carried out on the Brecon Beacons National Park Authority National Park Management Plan (NPMP) to meet recent regulations[1], as it has the potential to produce significant environmental effects.

The main purpose of SEA is improve the environmental performance of a plan by assessing whether it is likely to result in any significant environmental effects (positive or negative). Recommendations as to how adverse effects can be avoided, offset or reduced, as well as how improvements can be made, should be suggested. A programme to monitor significant effects is required in order to check whether the SEA has been accurate in its predictions.

In order to be consistent with the assessment currently being undertaken for the Brecon Beacons National Park Authority Local Development Plan (LDP), which requires Sustainability Appraisal (SA) under other legislation, SA has also been undertaken for the National Park Management Plan.

This Sustainability Appraisal Report (SA Report) documents the findings of the assessment of the NPMP in order to give stakeholders and the public an opportunity to comment on the findings, at the same time as making any comments on the plan itself. The results of the consultation on the SA Report will be documented in the SA Adoption Statement which will be published alongside the adopted NPMP later in 2009.

The National Park Management Plan

The National Park Management Plan is the single most important document for the Brecon Beacons National Park (BBNP). The Plan coordinates and integrates other plans, strategies and actions in the National Park that affect the two Park purposes and its duty. The Plan sets a vision for the future of the Park and specifies actions and outcomes to pursue in the next five years to bring the Park closer to its shared vision.

The NPMP is currently being reviewed and the National Park Authority has now produced a second draft of the Management Plan to be consulted upon.

The SA/SEA Process

The assessment process is briefly described below and summarised in **Figure NTS1**.

[1] Environmental Assessment of Plans and Programmes (Wales) Regulations (2004)

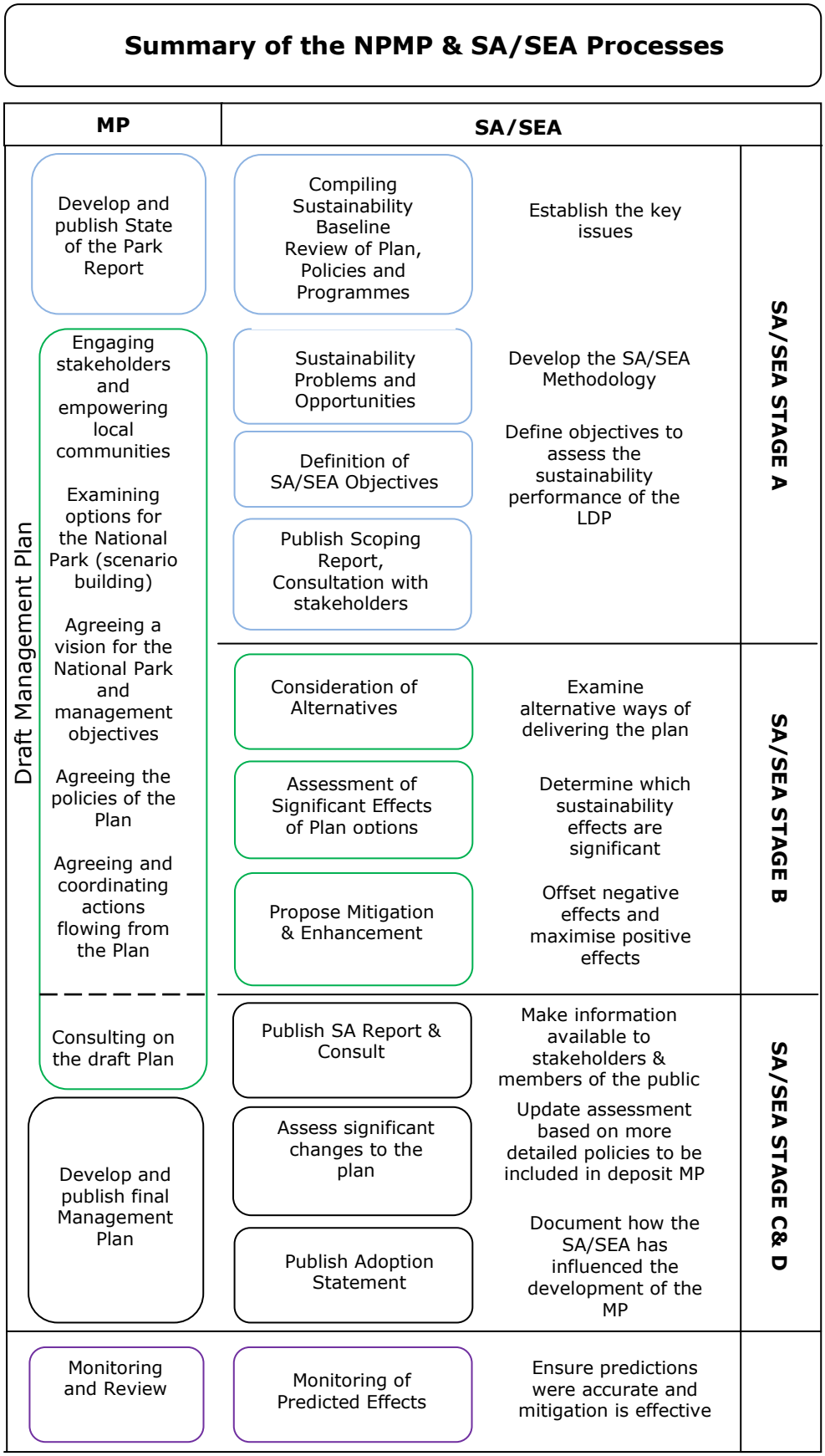

Figure NTS1: Summary of the SA/SEA Process

The SEA Regulations require that the following topics are investigated: Air; Biodiversity; Climatic factors; Cultural heritage; Human health; Landscape; Material assets; Population; Soil; Water; and the interrelationship between these factors. The Sustainability Appraisal element of the process widens this to include consideration of social and economic issues.

Stage A - After documenting the sustainability characteristics of the area, and identifying any trends (i.e. is the situation getting better or worse?), the policy context of the NPMP was reviewed. From the outputs of these two initial stages the key environmental issues and opportunities that exist in the Park were identified, on which the assessment should focus. A series of SA/SEA Objectives were developed to concentrate the subsequent assessment process on these key issues.

Stage B - This stage involves predicting the effects that would result if the draft management plan were implemented and then assessing whether any of these effects would be significant. If significant adverse effects are identified then measures to mitigate these effects are identified.

Stage C - The Sustainability Appraisal Report pulls together the results of all the assessment activities that have been undertaken by consultants Centre for Sustainability and identifies monitoring activities that will check the accuracy of the assessment once the Plan is adopted (C4S).

Stage D – Consultation on the Environmental Report with environmental bodies, key stakeholders and the public. The SA will then assess any significant changes to the Plan that are made after the consultation. At Plan adoption, an SA Adoption Statement will be published which explains how the SA has influenced the plan making process and finalising the monitoring arrangements. Once the NPMP is finalised monitoring measures will be confirmed and presented in the SA Adoption Statement.

Stage E – Once the NPMP is adopted the agreed monitoring needs to be undertaken so that adverse effects can be dealt with.

Sustainability Issues and Objectives

The first stage of the SA/SEA focused on the identification of the sustainability issues in the Park. The summary of issues that were identified are summarised in Table NTS1. Further detail can be found in the SA Report and its accompanying appendices.

Table NTS1: Summary of Issues in the Park

SA/SEA Topic	Issues Identified
Climate change	Increase in the risk of flooding.
	Development in the floodplain
	Increase in the risk of drought.
	Increase in the risk of erosion, habitat loss and water quality.
Greenhouse gas emissions	Targets for Greenhouse gas emissions are not being met.
Air quality	Main outstanding issue is acid rain (nitrate deposition) originating outside the park.
	Potential issue with ozone levels
Water quality	The causes of some waters being biologically and chemically less than 'very good' needs to be addressed.
	A large majority of the NP falls within groundwater vulnerability zones.
	Issues with groundwater contamination from old mineworks.

	Need to improve the water quality at the lower part of Monmouthshire Canal.
	Catchment management as the most cost-effective means of conserving water and improving water quality, versus expensive and intrusive water treatment works (new one at Talybont, new one sought in Upper Swansea Valley).
Water quantity	The effects of climate change on the abundance or limitations of water; River Usk is at or close to maximum abstraction capacity.
	Reservoirs run low or empty during prolonged drought.
Soil and geodiversity	Risk of soil erosion and reduction from grazing animals, walkers and other recreational activities.
	NP contains areas of peat and high carbon soils already degraded, compacted and eroded.
	51% of geological SSSIs in the park are in an unfavourable condition.
Biodiversity	Threats to biodiversity from habitat loss, pollution and the anticipated effects of climate and agricultural change.
	Of the 11 SACs in the NP, 9 have features that are in an unfavourable condition.
	55% of SSSI biological "features of importance" in the NP are in an unfavourable condition. Of those owned/managed by the NPA 77% are in an unfavourable condition.
	Continued risk to bat populations from built development; continued risk to other European Protected Species from declining hedgerow and coppiced woodland management (dormice), water levels and pollution (trout, salmon, twaite and allis shads, sea, river and brook lamprey, bullhead, white-clawed freshwater crayfish, otter, poorly planned development (great crested newts)
	Many of the LBAP habitats are currently declining.
	Knowledge gaps relating to the status and distribution of Species of Principal Importance to Wales and the status and condition of Habitats of Principal Importance to Wales (NERC list S42).
	Residual impacts of the natural gas pipeline travelling through the BBNP, which affects both the Rivers Usk and Wye SACs, numerous European Protected Species, 11 Affected Locations and farmland that has been poorly reinstated.
	Increasing abundance of riparian invasive plant species, particularly Japanese knotweed (also along roadsides) and Himalayan balsam, as well as Giant Hogweed, Cotoneaster (on limestone pavement and cliffs), potential increase by Rhododendron, grey squirrel.
	Increase in the risk of damage to flora and fauna from careless recreational use of wetlands.
	Pressure on the Park's biodiversity from the number of economic and social activities
Landscape, cultural heritage and the built environment	Lack of management of historic landscapes, scheduled ancient monuments and other archaeological features
	Affects of the natural gas pipeline on cultural heritage (3 Landscapes of Outstanding/Special Historic Interest), at least 1 historic park and garden and the NP landscape in general, as a consequence of the risk and possible likelihood of poor aftercare and final restoration.
	Adverse effects of changes in agricultural and rural development on the Park's landscape character and features.
	Increase in risk of quality and character of the built environment and cultural traditions.
	Loss of tranquillity within the Park.
	Noise/tranquillity issues in relation to MoD activities.

	Changes to the NP resulting in changes to agricultural practices. For example fewer people are exercising their grazing rights, and the anticipated decline in hill farming, thereby undermining the principal means of managing the Park's emblematic uplands and achieving essential improvements to this management.
Population and human health	Overall increase in population is expected via in-migration.
	Increase in the cost of housing in an area with already a high ratio of house price to income.
	The provision of affordable, low environmental impact and energy efficient housing for local people with fundamental services.
	Range of implications for the National Park from energy consumptions to planning maintenance of infrastructure to social services.
	Seasonal population fluctuations, impacting on communities, facilities and infrastructure.
	Compared to the rest of Wales health indicators for the NP (based of figures for Powys and Monmouthshire) are all above the national average (positive), with the exception of "Death from Road Traffic Accidents" which is significantly below (negative).
	Some of the rural areas within the Park suffer from poor access to local services.
Housing	A lack of land available for housing development within Brecon Town.
	Whilst the population of Brecon is projected to increase, the demand for housing is expected to increase at a faster rate. Factors contributing to this include the increase in buy-to-let investments, rising second home ownership and a reduction in the average number of people in each household.
	An identified shortfall in the level of affordable housing stock, primarily a result of a rising cost of land and an already limited number of available plots.
Economy	Employment figures are increasingly concentrated in limited industries.
	The agricultural industry employment figures are decreasing, which reduces the availability of skills and knowledge for land management of conservation.
Material Assets: Transport, Waste, Infrastructure	Lack of railway transport infrastructure and use of services is low.
	Increasing dependence on private vehicles as most of the Park is not well served.
	Need for improved rural transport.

Government guidance[2] on how to undertake SEA recommends that objectives are developed that relate to the key issues, so that the assessment can use these objectives to focus on the prediction and assessment of the effects that are most important in an area. The broad objectives that have been used in this SA/SEA are listed in Table NTS2.

These objectives were developed as part of the Scoping Report and updated following consultation on that report in order to take account of consultation comments

Table NTS2: SA/SEA Objectives

SA/SEA Topic	SA/SEA Objective
Climatic Factors	Ensure that adequate measures are in place to adapt to the impacts of climate change.
	Mitigate effects on climate change by reducing greenhouse gas emissions in both existing and new development.
Natural Resources: Air,	To maintain or improve air quality.

[2] A Practical Guide to the Strategic Environmental Assessment Directive (ODPM, 2005)

Water and Soil	Maintain or improve water quality, and minimise the adverse effects of land use on water quality.
	Promote sustainable use of water resources and minimise adverse effects on water quantity.
	To protect and enhance soil quality (including non-chemical soil functions and processes such as permeability) and quantity, especially of carbon rich soils.
	Conserve geodiversity and promote the understanding and enjoyment of geodiversity.
Biodiversity	To value, conserve and enhance the diversity of species, habitats and ecosystems.
Cultural Heritage	To understand, value, protect and manage historic landscapes, scheduled ancient monuments and other archaeological features appropriately.
Landscape and the Built Environment	Maintain and enhance the quality of the built environment.
	Maintain and enhance the Park's landscape character and its associated features.
Material Assets	Make sustainable use of natural resources and build and maintain environmentally friendly, high quality, services and infrastructure.
	Increase sustainable transport opportunities.
Population and Human Health	Maintain distinctive cultural identity and ensure the needs of the changing demographics are reflected.
	Promote and improve accessibility to the Park and to its opportunities and facilities.
Education and Skills	Increase opportunities to build an education and skills base.
Achieving and Sustainable Economy	Promote a thriving, locally-based economy.

Alternative Strategies

During the preparation of the draft MP, an interim assessment of the proposed vision, aims, strategic objectives and actions was undertaken. This interim assessment, along with other evidence gathered by the NPA, was then used to inform the plan makers as to the likely environmental/sustainability effects of the plan elements to help them decide which of these should be taken forward as in the draft Management Plan.

NPMP Assessment

The assessment of the draft NPMP explored the likely effects of the vision, aims, strategic objectives and actions against the 17 SA/SEA objectives described in Table NTS2 using the scoring criteria outlined below.

The inherently protectionist nature of the NPMP has meant that no adverse effects or incompatibilities have been identified between the draft NPMP elements and the SA/SEA objectives, although there are potential for adverse effects within the areas of uncertainty. This uncertainty will be dependent on how the relevant objectives and actions are taken forward in terms of their scale and spatial coverage.

Significance Assessment	Description
++	Plan element would have a major positive effect on sustainability in its current form as it would resolve an existing issue or maximise opportunities. **SIGNIFICANT**
+	Plan element would have a **MINOR** positive effect on sustainability.
?	Effect of option on sustainability is uncertain.
0	Plan element would have a neutral effect on sustainability.
-	Plan element would have a **MINOR** adverse effect on sustainability.
--	Plan element would have a major adverse effect on sustainability as it would substantially exacerbate existing problems. Consider exclusion of option. **SIGNIFICANT**

The overall results of this assessment can be seen in Figure NTS3. More detail on the assessment can be found in the full SA Report and its accompanying appendices.

	SA/SEA Objectives																
	Climate Adaptation	Climate Mitigation	Air Quality	Water Quality	Water Quantity	Soil	Geodiversity	Biodiversity	Cultural Heritage	Built Environment	Landscape	Material Assets	Transport	Population	Accessibility	Education/Skills	Economy
Overall Assessment	+	+	+	+	+	+	++	++	++	+	++	+	+	++	+	+	+

Figure NTS3: Summary of Assessment

As shown above, the assessment of the draft Management Plan identified overall significant positive effects for five of the SA/SEA objectives. The NPMP contains many aims, strategic objectives and actions aimed at protecting and enhancing the Park's special qualities, including its biodiversity, geodiversity, cultural heritage and landscape which will have direct significant positive effects on these SA objectives.

Many of the elements within the NPMP will have long-term positive effects on the SA objectives and should help to resolve some of the issues faced in the Park, such as the unfavourable condition of certain habitats, pressures on landscapes from agricultural change, loss of tranquillity, effects of climate change, and loss of land management skills. The development of new tourism facilities may have temporary effects on the environment during construction but long term the effects of new facilities will likely be positive, through increased accessibility to the Park.

The elements within the draft NPMP will specifically help the Park to achieve its two purposes of conserving and enhancing the natural beauty, wildlife and cultural heritage of the National Park and promoting opportunities for the understanding and enjoyments of the Park's special qualities by the public.

It is important to highlight that although the NPMP encourages sustainable tourism within the Park, increasing number of visitors within the Park may have adverse effects on the Park's biodiversity, geodiversity, cultural heritage and landscape. These effects will be dependent on the location and type of tourism activity. Increasing tourism within the Park may also lead to increased water and energy consumption in the park. In particular, despite the measures to encourage the use of sustainable modes of transport,

encouraging increased tourism within the Park may lead to increased greenhouse gas emissions from visitor transport.

In the longer term, the Park's special qualities are at risk from the changing climate. The NPMP contains aims, objectives, and actions which should help the Park and its communities to adapt to the predicted changes and impacts. However it is important to note that the Park's uplands which are already under threat from changing agricultural practices and tourism may become increasing threatened. As uplands provide a valuable eco-system service, for example providing 70% of the UK's water supply, it is essential that the uplands within the Park are protected and enhanced.

Mitigation and Recommendations

Work at this stage of the SA/SEA has identified a range of recommendations as to how NPMP can maximise its performance against the range of sustainability topics. Some of these recommendations seek to mitigate potential adverse effects, whilst others look to build on some of the opportunities that are presented by Park's wealth of environmental resources.

These measures include:

- Encouraging the development of carbon neutral buildings and facilities;
- Investigating the use of cleaner fuels on public transport and NPA fleet vehicles;
- Promoting the use of Sustainable Drainage Systems (SUDS); and
- Restoring degraded peatlands.

Monitoring

Once the NPMP is adopted, its effects on the environment are to be monitored to allow action to be taken to reduce and/or offset any significant effects. Where possible this monitoring will make use of existing arrangements. No significant adverse effects have been forecast; however significant positive effects have been forecast for each of the 17 SA objectives. Monitoring indicators have been proposed for each of the SA objectives. These include:

- Percentage of housing stock meeting or exceeding level 3 of the code for sustainable homes;
- Status and trends for Biodiversity Action Plan target species;
- Distances travelled per person per year by mode of transport; and
- Percentage occupancy of beds in holiday accommodation throughout the year.

The final monitoring plan will be published in the SA Adoption Statement, alongside the adopted NPMP.

Next Steps

The publication of this SA Report signifies the start of the consultation process whereby key stakeholders and the public are given the opportunity to comment on the contents of both the draft NPMP and the SA Report.

The NPMP will continue to be developed in 2009 and should be adopted towards the end of 2009. Alongside the adopted NPMP an SA Adoption Statement will be produced.

Making your Views Known

This SA Report will be published for consultation alongside the draft NPMP in July 2009.

Copies of the documents are available for public inspection free of charge at BBNPA, Plas y Ffynnon, Cambrian Way, Brecon, Powys, LD3 7HP from Monday to Friday 10am to 4pm and are available on the Authority's website at www.breconbeacons.org. They are also available at the Abergavenny, Brecon, Llandovery and Pontneddfechan National Park & Tourist Information Centres during their normal opening hours, and at the following Libraries during their normal opening hours:

Aberdare Central, Abergavenny, Abersychan, Ammanford, Blaenavon, Brecon, Brynaman, Brynmawr, Crickhowell, Dowlais, Ebbw Vale, Gilwern, Hay on Wye, Hirwaun, Llandovery, Llandeilo, Merthyr Tydfil Central, Pontypool, Rhymney, Talgarth, Tredegar, Ystrad Mynach, and Ystradgynlais.

Comments on the SA Report should be sent in writing to the **National Park Management Plan Officier** at BBNPA or made on-line to enquiries@breconbeacons.org **by the 14th September 2009**. Representations (*including objections*) should specify the matters to which they relate.

A form for making representations is available from the above address or on-line at www.breconbeacons.org.

When the consultation period has finished, the comments received will be considered during the preparation of the final NPMP.

1 Introduction

1.1 Background to Sustainability Appraisal/Strategic Environmental Assessment

Strategic Environmental Assessment (SEA) is now a mandatory requirement in Wales as in other European Union countries for certain plans and programmes. Most plans and programmes in spatial planning fall under this requirement if they meet certain tests contained within the SEA Regulations for Wales[3].

In order to be consistent with the assessment currently being undertaken for the Brecon Beacons National Park Authority Local Development Plan (LDP), which requires Sustainability Appraisal (SA) under other legislation, SA has also been carried out for the National Park Management Plan. To be fully effective Brecon Beacon National Park Authority (BBNPA) have ensured that the SA/ SEA has been fully integrated into the plan making process and the SA/SEA has provided input at each stage when decisions have been taken. In developing the SA/SEA, BBNPA have had regard to the specific objectives and principles of Planning Policy Wales (PPW).

1.2 Screening

An initial screening process confirmed that the NPMP is likely to have a significant economic, social, and environmental impact on the National Park area and should therefore be subject to SA/SEA. The NPMP also has the potential to have adverse effects on conservation sites of European importance, and therefore a Habitats Regulations Assessment (HRA) screening has been undertaken in order to determine whether a detailed Appropriate Assessment (AA) will be required.

1.3 Sustainability Appraisal (SA)

Sustainability Appraisals (SAs) are a process of evaluating the social, environmental, and economic implications of emerging strategies, policies and plans. This process is intended to make certain that plans and their goals[4] and policies are in accordance with the underlying principles of sustainable development. SA seeks to ensure that the five principles and four agreed priorities for sustainable development are addressed[5]:

Principles:

1. Living within environmental limits;
2. Ensuring a strong healthy and just society;
3. Achieving a sustainable economy;
4. Promoting good governance; and
5. Using sound science responsibly.

Priorities:

- Sustainable consumption and production;
- Climate change and energy;

[3] Welsh Statutory Instrument 2004 No.1656 available at http://www.legislation.gov.uk/legislation/wales/wsi2004/20041656e.htm

[4] Note that the term "objective" is used throughout this document in reference to SA/SEA objectives to be consistent with the vocabulary outlining these processes, despite the fact that they are not truly objectives.

[5] As set out in "Securing the Future: Delivering a UK sustainable development strategy", DEFRA 2005

- Natural resource protection and environmental enhancement; and
- Sustainable communities.

Protected areas should provide exemplars of best practice of sustainable development for wider Wales, so as a result it is important that the process of undertaking the SA in this case is seen to be an exemplar of how to undertake and deliver SA. The interpretation and weight given to the different strands of sustainability will need to take into account the statutory purposes of designation. Current guidance recommends that the Sustainability Appraisal be combined with the Strategic Environmental Assessment as one cohesive process.

1.4 Strategic Environmental Assessment (SEA)

European Union Directive 2001/42/EC requires a formal Strategic Environmental Assessment (SEA) of all plans and programmes which are likely to have significant effects on the environment. It aims: *"…to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment"* (Article 1).

The Directive defines environmental assessment as a procedure comprising:

- The preparation of an Environmental Report on the likely significant effects of the draft plan or programme;
- carrying out consultation on the draft plan or programme and the accompanying Environmental Report;
- Taking into account the Environmental Report and the results of consultation in decision making; and
- Providing information when the plan or programme is adopted showing how the results of the environmental assessment have been taken into account

SEA is required to be undertaken alongside the preparation of the plan to which it relates to allow strategic alternatives to be formally incorporated into it at the earliest opportunity. This process, in conjunction with the requirements of the SA, will ensure that the environmental, social, and economic implications are fully integrated into emerging policies and strategies.

1.5 Methodology

Despite the distinct requirements of the SA and SEA, the possibility remains to satisfy both in a single combined process. This can be achieved as the findings of the SEA (environmental focus) can be incorporated into the broader SA (includes socio-economic focus). The BBNPA is committed to satisfying the requirements of SA and SEA in a combined appraisal. The process will be integrated into each of the NPMP preparation stages (Figure 1-1), thereby ensuring consistency between objectives, transparency in decision making, and a consistent level of rigour throughout the process. The SA/SEA process is therefore central to the process of developing the NPMP itself.

This single process will subsequently inform monitoring of the effectiveness of the plan's implementation and assist in any future revisions.

1.6 Stages of the SA/SEA

The stages of the NPMP and SA/SEA are shown in Figure 1-1.

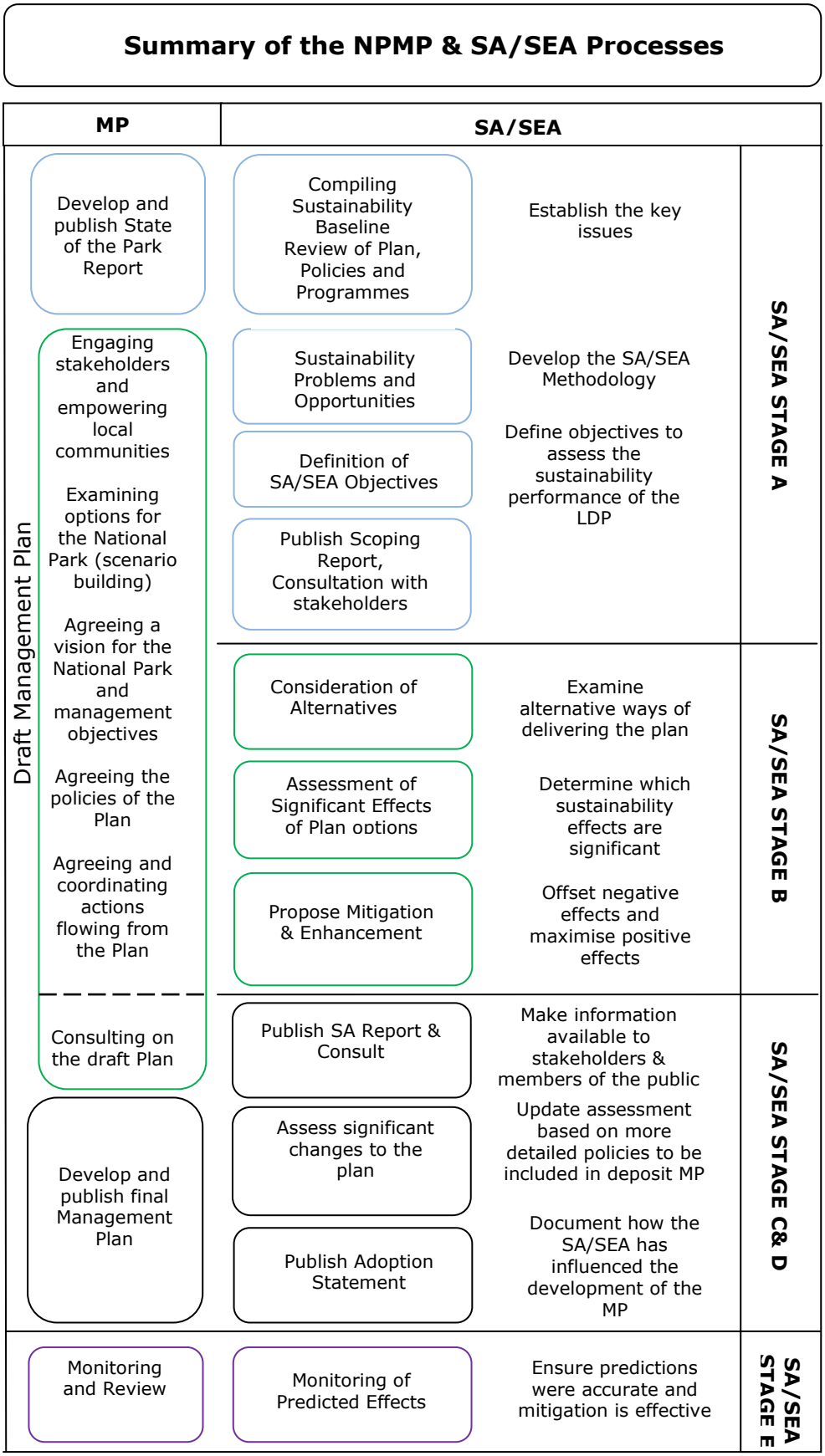

Figure 1-1: The NPMP and SA/SEA Processes

The documents produced (see Figure 1-1) are available to download on BBNPA's website at http://www.breconbeacons.org/.

The SA/SEA of the NPMP is being carried out by the Centre for Sustainability (C4S) at TRL Ltd to provide an independent assessment of the significant effects of the plan on environmental and sustainability issues.

1.7 Integration of SA/SEA into the Plan Preparation Process

To derive most benefit from both processes, and limit pressures on consultees, the National Park Authority (NPA) have ensured that the consultations required by the SA/SEA process are integrated into the plan making process as fully as possible. The SA/SEA has provided input at each stage of plan preparation that involved decision making. The fact that the issues that the plan has addressed are similar to those covered by SA/SEA makes the process easier in some ways, although it is also a source of potential confusion between the two processes.

1.8 Compliance with the SEA Directive/ Regulations

The SEA Regulations set out certain requirements for reporting the SEA process, and specify that "*The Environmental Report required by the SEA Directive can be included in an assessment report on the wider effects of the plan or programme, such as a Sustainability Appraisal Report. However it must clearly show that the Directive has been complied with, for example by signposting to enable the components that meet the requirements for the Environmental Report to be readily identified.*"

Consequently, the requirements for reporting the SEA process are set out below, and the section of the report that includes each requirement is indicated.

An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and programmes:

- Section 2.3 of this report sets out the contents of the NPMP, including the vision, aims, strategic objectives and priority actions. The relationship with other relevant plans is summarised in Sections 3.2 and 3.3 and detail is provided in Appendix B.

The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme:

- Section 3.5 of this report summarises the relevant baseline conditions for the National Park. Appendix A sets out this information in more detail. The likely evolution of current conditions is provided in Appendix A.

The environmental characteristics of areas likely to be significantly affected:

- Where relevant and available, information regarding particular areas has been included in Section 3.5. Good practice guidance specifies that the contents and level of detail of information required should be relevant to the particular plan being assessed. Accordingly, baseline information is provided at a range of different scales where available and appropriate.

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 (Conservation of Wild Birds) and 92/43/EEC (Habitats Directive):

- Section 5.1 of this report summarises existing sustainability problems for the Park. Issues relating to Natura 2000 sites (designated by the above directives) are outlined in Section 1.9.

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:

- Appendix B outlines the environmental protection objectives relevant for sustainability in Park, and the implications of these objectives for the NPMP.

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:

- The SA Framework of objectives presented in Section 5.2 of this report covers all of the topics in the SEA Regulations, and progresses them through SA objectives. This ensures that all of the issues are considered during the assessment of the NPMP components. The likely effects of the NPMP (including environmental effects, as well as an indication of the nature of that effect) are summarised in Section 7.2 and detailed in Section 7.3 and Appendix D.

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:

- No significant adverse effects have been forecast. However, recommendations have been made to progress the plan in Section 7.3.

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:

- Section 6 discusses the consideration of alternatives.
- Section 7 provides a summary of the assessment of the NPMP. The assessment matrices are presented in Appendix D.
- The difficulties encountered in compiling information are summarised in Section 3.5
- The difficulties encountered in undertaking the assessment are summarised in Section 7.4.

A description of measures envisaged concerning monitoring in accordance with Article 10:

- Potential measures envisaged for the monitoring of the sustainability effects (including environmental effects) arising from implementing the NPMP are provided in Section 5.2 of this report.

A non-technical summary of the information provided under the above headings:

- The non-technical summary is set out at the beginning of this report.

Consultation:

- The results of the consultation on the NPMP SA/SEA Scoping Report, and appropriate modifications made, can be found in Section 4 and Appendix C.
- Consultation responses on the LDP Scoping Report and LDP Initial Sustainability Appraisal Report have also been taken into consideration.

1.9 Habitats Regulations Assessment

Habitats Regulations Assessment (HRA) of spatial, development plans is a requirement of the Habitats Directive (92/43/EEC) as set out in the amended Habitats Regulations[6] (2007). An HRA for the Brecon Beacons National Park Authority, NPMP is being undertaken as a separate process to the SA/SEA. A summary of the process, results and recommendations are provided below. Further detail can be found in the Screening Report available at www.breconbeacons.org.

The screening assessment considered the potential for impacts to arise from the NPMP and the likelihood that identified impacts would result in likely significant effects on the twelve European sites scoped into the screening assessment.

The screening assessment for likely significant effects identified that the Management Plan is highly protectionist and precautionary in relation to potential biodiversity impacts, and that it provides clear policy protection and management actions designed to avoid effects on European Sites. The screening therefore concluded that the NPMP will not have a significant effect on the European sites considered, either alone or in-combination with other plans.

[6] Habitats Regulations (The Conservation (Natural Habitats, & c.)(Amendment) (England and Wales) Regulations 2007)

2 Brecon Beacons National Park Management Plan

2.1 The Brecon Beacons National Park

The Brecon Beacons National Park (BBNP) contains some of the most spectacular and distinctive upland landforms in southern Britain. The Park covers 520 square miles (1,344 square kilometres) and lies between rural Mid Wales and the industrial South Wales Valleys. It is a diverse landscape, where sweeping uplands contrast with green valleys, with dramatic waterfalls, ancient woodland, caves, forests and reservoirs. The highest point in the Park is Pen y Fan in the Brecon Beacons, at the centre of the National Park. Its distinctive table-topped summit stands at 886m, and it is climbed by hundreds of thousands of people each year.

The Park is home to 33,000 people, and has a strong Welsh heritage and rich economic, social and cultural life. The largest settlement is the cathedral town of Brecon with a population of approximately 7,500. Meanwhile, over 3 million people a year come to the Brecon Beacons National Park to enjoy the unforgettable landscape. The mountains, uplands and valleys are all excellent walking country. Others come to enjoy such activities as horse riding, cycling and mountain biking, and water-based recreation.

2.2 National Park Purposes and Duty

National Parks were designated under the 1949 National Parks and Access to the Countryside Act, but their current framework is the Environment Act 1995. Section 61 sets out their two purposes:

- Conservation and enhancement - *"to conserve and enhance the natural beauty, wildlife, and cultural heritage of the National Parks"*
- Understanding and enjoyment - *"to promote opportunities for the understanding and enjoyment of the special qualities [of the Parks] by the public."*

These are underpinned by the Sandford Principle which asserts the primacy of the first purpose over the second in cases of obvious conflict.

The Parks have national and international importance as protected landscapes, and their funding and specialist staff help them serve as test-beds for sustainable and innovative development and management. Their work locally can therefore have national and global benefits.

The National Parks of Wales, Scotland, and England are Category V protected areas as defined by the World Conservation Union (IUCN) in the Guidelines of Protected Area Management Categories 1994. Category V protected areas are living and working landscapes with characteristic qualities, features, and services that have been moulded by the interplay of natural forces and human activities over the course of time. Consequently, careful regard must be given to the linkage between local communities and economies and environmental conservation in and around the National Parks. As such, the National Park Authority (NPA), in pursuit of the two statutory purposes, has a duty to:

"…seek to foster the economic and social well-being of local communities (within the National Park by working closely with the agencies and local authorities responsible for these matters)."

Section 62(2) of the Environment Act 1995 imposes a duty on all public bodies to have regard to the two National Park purposes when making their decisions or carrying out activities in relation to or so as to affect land within a national park. The NPA leads the actions and facilitates the partnerships required to fulfil the Park purposes and duty, with

the aim to foster a collective sense of purpose. In so doing, the NPA's role is to facilitate, coordinate, and add value to the work of others in the Park. It is not the responsibility of the NPA to duplicate work or assume others' responsibilities except where previously agreed. To this end, responsible stewardship of the National Park rests not only upon the shoulders of the National Park Authority but also upon the shoulders of all who reside, work, recreate, and/or have a vested interest in the Park.

The National Park Management Plan (NPMP) is the principal vehicle for ensuring that the statutory provisions of the Act are met[7]. The central role of the management plan, then, is to guide the delivery of the statutory purposes and duty, assisted by the NPA's statutory planning function.

The National Park Authority is the planning authority for the National Park area. The Brecon Beacons National Park, as an administrative area, covers parts of 9 of Wales' 22 Unitary Authorities.

2.3 The National Park Management Plan

The National Park Management Plan is the single most important policy document for a National Park. It is the over-arching strategic document for the Park as a whole, in relation to delivery of the National Park purposes; it is not just for the work of the NPA but a plan for all who care about the Brecon Beacons National Park and its future. As such, it should integrate the strategies, plans, and actions of the NPA and other organisations where these affect the purposes of National Park designation and the NPA's duty towards local communities. It provides the strategic background for the NPA's Local Development Plan (LDP).

Plan preparation should involve active participation of key stakeholders and the wider community, encouraging shared ownership of and support for the vision, goals, aims, objectives, policies, and actions that each plan identifies[7].

The NPA is required to review the National Park Management Plan (NPMP) every 5 years. The last Plan ran from 2000-2005 and was subject to a Sustainability Appraisal (SA).

2.3.1 The National Park Management Plan Vision

The NPMP vision is as follows:

In 2028 the Brecon Beacons National Park will be…
● Recognised internationally and nationally for its value as a protected area, whose character continues to be shaped by the long-standing interactions between people and the processes of nature.
● Widely acclaimed for its natural beauty, geodiversity, biodiversity, and cultural heritage which are being conserved and enhanced by its stakeholders through traditional and innovative means.
● A sought-after destination providing an outstanding variety of sustainable opportunities for all to understand and enjoy its tranquillity, rural character, Welsh way of life, sense of remoteness, and other special qualities.
● Resilient, open, and responsive to change—particularly climate change—and its stakeholders proactive in mitigating and adapting to the effects of undesirable change through local action.
● Less dependent upon external supply chains leading to increased food and energy security locally, improved quality of life, community cohesion and conservation of natural capital.
● A living landscape where people can earn a living from the land in an innovative manner, for

[7] National Park Management Plans: Guidance. CCW (2006)

example through farming, but also in new ways such as renewable energy production for the benefit of the environment, economy and local communities.

- Managed sustainably[8] through active partnerships among the Park's stakeholders so that it continues to be a source of inspiration and enjoyment for future generations.
- Monitored over the long term to improve future policy and management practice.

2.3.2 The National Park Management Plan Aims

In order to achieve the vision for the Brecon Beacons National Park, the following aims have been developed (Table 2-1).

Table 2-1: NPMP Aims 2028

Conserving and Enhancing the Natural and Cultural Heritage of the Park	The beautiful and varied character of the landscape will continue to be well-managed and cared for. Landscape change will be encouraged to benefit the Park's biodiversity, geodiversity and cultural heritage.
	The upland commons will be managed for the benefit of habitat conservation, grazing productivity, archaeological features, energy, public accessibility and to the provision of other public benefits.
	Woodlands will be integrated with other aspects of countryside management. They will be extended and diversified where possible and as appropriate. They will be well-managed for their landscape, economic, ecological and social values and as a renewable resource.
	The Park's stakeholders will encourage biodiversity to flourish and adapt to climate change. Improved habitat connectivity and exemplary management of all statutory and non-statutory designated nature conservation sites will enhance the condition and diversity of species and habitats in the Park.
	Experimentation with novel approaches to sustainable development and environmental conservation on NPA-owned lands will provide examples of best practice.
	The traditional pattern of farmed land and its characteristic, historic features and habitats will be conserved and enhanced, providing the basis for a thriving agricultural economy.
	Air, water and soil resources will be used sustainably to integrate the needs of wildlife with the demands from human use. Their quality will be brought up to and maintained at a high standard as appropriate.
	The Park's internationally-renowned geological and geomorphological features will be conserved and interpreted.
	The Park's historic settlement patterns and buildings will be conserved and enhanced. New development will adhere to sustainable design principles and complement the existing built heritage of the Park.
	Historic landscapes and archaeological features will be protected, conserved and enhanced.
	Local traditions, community events and the Welsh language will flourish and evolve as part of a living culture that cherishes the past and embraces the future.

[8] Sustainably: respecting the limits of the planet's natural resources, its environment and its biodiversity whilst having regard for social and economic concerns such that all actions taken to meet our needs today do not compromise the needs of future generations.

Understanding and Enjoying the Special Qualities of the Park	Everyone will have abundant opportunities to learn about and experience the Park's special qualities. They will understand why this living landscape is an internationally important protected area and sustainable tourism destination.
	The sense of tranquillity, peace, and remoteness experienced throughout the National Park will be conserved and enhanced.
	People will better understand the contributions geodiversity and biodiversity make to the landscape, economy and environment.
	The historic environment will be better understood and valued as an important link among past, present and future generations.
	People will come to the Park to enjoy a wide range of sustainable activities. They will understand and practice responsible behaviour.
	The facilities, information, and interpretation used to enhance peoples' experiences of the Park will exceed their expectations. A full range of interpretation, education and communication tools will be used.
	People will better understand the implications of climate change on their daily lives and how they can mitigate and adapt to its effects.
	The Park will be much-admired as a place to pursue healthy lifestyles, relaxation and spiritual renewal as "One of Britain's Breathing Spaces."
	Everyone will have equal opportunity to enjoy and understand the Park's natural beauty, wildlife and cultural heritage via an integrated network of routes. Public confidence as to where to recreate will be high.
Economic and Social-well Being of the Local Communities	The Park's people, Welsh heritage and rich economy will continue to thrive, supporting healthy communities and the environment whilst providing a welcome for visitors.
	The Park's communities will have pride in their place and a sense of ownership of the Park.
	Sustainable transport initiatives will enhance accessibility across the Park whilst reducing the reliance on private motor vehicles.
	The Park will be supported by an exemplar sustainable tourism industry which contributes to the public's enjoyment of the area's special qualities and to the local economy.
	Good quality, well designed and sustainable affordable housing of all types will be accessible to the Park's communities.
	A mixture of farmers, small rural businesses, traditional land-use businesses, local services and sustainable tourism industries will maximise the economic potential of the Park's special qualities whilst promoting resource conservation.
	Individuals will have access to employment opportunities and modern amenities appropriate to the context of the Park's purposes and duty.
	The contributions that historic landscapes, local distinctiveness and vernacular buildings make to the economy and environment will be recognised and promoted.
	Local communities and businesses will experiment with and adopt new approaches to waste reduction, localised food production through market gardens, effective recycling, reduced energy consumption and renewable energy generation and use.
	The Park's communities and businesses will reduce their reliance on fossil fuels whilst minimising their contributions to global climate change.
	Local communities will establish collaborative projects for food production, income generation, energy generation and travel that maximise social, economic and environmental benefits for all.
	New development and regeneration projects within the Park will provide exemplars of best practice for Wales with regard to climate change mitigation and adaptation strategies.
	Everyone will understand and appreciate how the planning process helps to achieve the Park's purposes and duty.

	All those with an interest in the Brecon Beacons National Park will understand and embrace the vision of this special place and work together to sustain it.

2.3.3 The National Park Management Plan Strategic Objectives

In order to achieve the long term vision for the Brecon Beacons National Park, strategic objectives have been developed. These strategic objectives provide a framework which will guide decision-making and management of the Park for the NPA and its partners.

The strategic objectives are grouped into the following topics:

- Landscape
- Biodiversity
- Geodiversity
- Historic Environment
- Built Environment
- Culture and Traditions
- Air Resources
- Water Resources
- Soil Resources
- Minerals
- Energy
- Farming
- Woodland Management
- Uplands Management
- Outdoor Access and Recreation
- Promoting Understanding and Enjoyment
- Information
- Education
- Interpretation
- Sustainable Communities
- Sustainable Tourism
- Fforest Fawr Geopark
- Planning and Development
- Transport
- Waste Management
- Military Use of the Park

2.3.4 National Park Management Key Actions

The NPMP outlines key actions which seek to deliver the plans strategic objectives. These actions are grouped under the following seven themes:

- Raising awareness and understanding of the Park;
- Providing everyone with opportunities for outdoor access and recreation;
- Building community pride and sense of place;
- Building and maintaining sustainable communities, towns and villages;
- Sustainable economic development;
- Conserving and enhancing biodiversity; and
- Managing Park landscapes to maximise conservation and public benefits.

3 Environmental and Sustainability Planning Context

3.1 Introduction

This section summarises the findings from the SA scoping stage. The scoping process seeks to ensure that the Sustainability Appraisal encompasses the key sustainability issues relevant to the Park in the context of the development plan system. This section provides the environmental and sustainability context by:

- Examining the relationship of the NPMP with other policies, plans and programmes, to identify all relevant environmental protection objectives and to identify potential conflicts to be addressed within the plan-making process; and
- Assembling baseline data on the current and future state of the Park for the environment and sustainability topics which may be affected by the NPMP.

3.2 Review of Policies, Plans and Programmes

The SEA process requires authorities to review the requirements of policies, plans and programmes (PPPs) relevant to the content of the Plan. Table 3-1 provides a list of documents reviewed and section 3.3 summarises the key issues. A detailed review can be found in Appendix 2.

Table 3-1: Summary of plans, policies and programmes

General
● Johannesburg Summit on Sustainable Development (UN 2002)
● EU Sustainable Development Strategy (2006)
● Planning and Compulsory Purchase Act (2004)
● Planning Acts
● Securing the Future - UK Government sustainable development strategy (2005)
● Environment Strategy for Wales (WAG 2006)
● Environment Strategy Action Plan (2008 – 2011)
● Wales Spatial Plan (2008)
● Government of Wales Act (1999)
Climate Change
● UN Framework Convention on Climate Change (1994)
● Kyoto Protocol (UN 1997)
● UK Programme for Climate Change
● UK Climate Impacts Programme
● Stern Review (2007)
● Planning for Climate Change: consultation draft (2006)
● Responding to our Changing Climate: consultation on a climate change adaptation action plan for Wales (2007)
● A review of current literature on the evidence for climate change and its implications for the Brecon Beacons
Natural Resources: Air, Water and Soil
● EU Nitrates Directive (91/676/EEC)
● EU Groundwater Directive (80/68/EEC)
● EU Groundwater Directive (2006/118/EC)
● EU Environmental Liability Directive (2004/35/EC)
● EU Water Framework Directive (2000/60/EC)

- EU Freshwater Directive (2006/44/EC)
- EU Thematic Soil Strategy (2006)
- EU Directive on the Assessment and Management of Flood Risk (2007/60/EC)
- UK Air Quality Strategy (2007)
- Tan 15: Development and Flood Risk (2004)
- Flood and Coastal Defence Strategies
- Water Resource Management Plans (EA)
- Water Resources for the Future (2001)
- Waterways for Wales (British Waterways)
- National Navigation Strategy
- National Water Resources Strategy
- Wales Water Recreation Strategy (EA 2008)
- Chemical Strategy
- Welsh Soils Action Plan – consultation draft (WAG 2008)
- Catchment Flood Management Plans Volume I – Policy Guidance EA July 2004
- Water Resources for the Future; A Strategy for England and Wales (EA)
- The Usk Catchment Abstraction Management Strategy (EAW March 2007)
- The Wye Catchment Abstraction Management Strategy (EAW March 2008)
- Restoring Sustainable Abstraction Programme
- Water Level Management Plans
- Soil Protection Strategy
- Western Wales River Basin District – River Basin Management Plan
- Severn River Basin District – River Basin Management Plan
- Dŵr Cymru Welsh Water - Water Resources Management Plan

Biodiversity and Geodiversity

- UN Convention on Biodiversity (1992)
- Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979)
- Bern Convention on the Conservation of Wildlife & Natural Habitats (1979)
- Convention on Wetlands of International Importance especially as a Waterfowl Habitat (Ramsar Convention 1971 as amended)
- EU Biodiversity Strategy (EU 1998)
- EU Habitats Directive (93/43/EEC as amended by 97/62/EC)
- EU Birds Directive (79/409/EEC as amended by 97/49/EC)
- Common Agricultural Policy
- Environment Act (1995)
- Countryside and Rights of Way Act (2000)
- Natural Environment and Rural Communities Act (2006)
- Wildlife and Countryside Act 1981 (as amended by Schedule 9 of the Countryside and Rights of Way Act 2000)
- The Conservation (Natural Habitats, &c) Regulations (1994)
- Great Britain Invasive Non-Native Species Framework Strategy (2008)
- Tan 5: Nature Conservation and Planning (1996)
- Ecological Connectivity (CCW 2006)
- CCW Priority Habitats of Wales (2003)
- UK Biodiversity Programme
- Core Management Plan (including conservation objectives) for Brecon Beacons site of special scientific interest (SSSI) incorporating Brecon Beacons/Bannau Brycheiniog Special Area of Conservation (SAC)
- Fisheries Action Plans
- Salmon Action Plans

- Our Natural World – A Local Biodiversity action plan for the Brecon Beacons National Park
- Local Geodiversity Action Plans

Landscape, Cultural Heritage and the Built Environment

- Guidelines of Protected Area Management Categories (IUCN 1994)
- Environment 2010: Our Future, Our Choice - EU Sixth Environment Action Programme (EU 2002)
- EU Landscape Convention
- Planning/Listed Buildings and Conservation Areas) Act (1990)
- Commons Act 2006 (c26)
- TAN 12: Design
- Ministerial Interim Planning Policy Statement (MIPPS) 02/2005 - Planning For Retailing and Town Centres
- Ministerial Interim Planning Policy Statements 01/2008 Planning for Good Design
- Ministerial Interim Planning Policy Statements 01/2005 Planning for Renewable Energy
- Welsh Office Circular 60/96 Planning & the Historic Environment: Archaeology
- Woodlands for Wales Strategy (WAG 2001)
- Heritage Protection for the 21st Century (WAG 2007)
- Better Woodlands for a Better Wales (FCW 2005)
- Creating a Better Wales (EAW)
- Valleys Regional Park Action Plan
- Historic Landscapes (Cadw 1998)
- A Cultural Strategy for Wales (2002)
- Blaenavon World Heritage Site Management Plan (1999)

Park Communities

- Achieving Our Potential: Tourism Strategy for Wales 2000
- Central Wales Inland Tourism Strategy WAG, 2007
- Sustainable Tourism Strategy
- Blaenau Gwent Community Strategy
- Carmarthenshire Community Strategy (2004 – 2020)
- Merthyr Tydfil Community Strategy
- Monmouthshire Community Strategy (2008 – 2011)
- Powys Community Strategy (2005- 2020)
- Rhondda Cynon Taff Community Strategy
- Torfaen Community Strategy
- Heads of the Valleys Regeneration Strategy and Action Plan

Economy

- European Structural Funds in Wales (2000 – 2006)
- Achieving our potential 2006 – 2013: Tourism Strategy for Wales Mid-term Review (2006)
- Farming for the future (2001)
- TAN 13 – Tourism
- Wales: A Vibrant Economy (2005)
- Rural Development Plan for Wales 2007-2013

Material Assets

- EU Framework Directive on Waste (75/422/EEC as amended by 91/156/EEC)
- Our Energy Future (DTI 2003)
- National Cycling Strategy
- Minerals Planning Policy (Wales)
- TAN 8: Renewable Energy
- Consultation Document: Renewable Energy Route Map for Wales (2008)
- South East Wales Regional Waste Plan (2004)

• South West Wales Regional Waste Plan (2003) • Wise About Waste – The National Waste Strategy For Wales • South East Wales Transport Alliance, Draft Regional Transport Plan (2007) • South West Wales Integrated Transport Consortium (SWWITCH) Draft Regional Transport Plan (2008) • Trafnidiaeth Canolbarth Cymru (TraCC) Draft Regional Transport Plan (2007) • Brecon Beacons National Park Authority Rights of Way Improvement Plan (2007)
Population and Human Health
• EU Assessment and Management of Environmental Noise Directive (2002/49/EC) • Human Rights Act (1998) • Disability Discrimination Act (2005) • Planning Policy Wales (2002) • Draft Ministerial Interim Planning Policy Statement (DMIPPS 02/2006) Planning, Health and Well Being • Better Homes for people in Wales: A National Housing Strategy for Wales (2005) • Living Longer, Living Better (2007) (Report of an advisory group on the strategy for Older People in Wales) • Housing Need in Rural Wales (2006) • A Report on Living and Working in Rural Wales (2004) • Climbing Higher: WAG strategy for sport and physical activity • Walking and Cycling Strategy (WAG 2003) • Powys Health, Social Care and Well Being Strategy 2008-2011 • Powys Local Health Board "Strategic Outline Programme" 2007 • Feeling Fine: A Health, Social Care and Well Being Strategy for Carmarthenshire 2008-2011 • Monmouthshire: Health, Social Care and Well Being Strategy 2008-2011
Education and Skills
• Welsh Language Act (1993) • Iaith Pawb National action plan for the Welsh language (WAG 2003) • The Learning Country 2: Delivering the Promise (2006)

3.3 Key Issues from PPP

The key issues and opportunities identified for the NPMP in the review of policies, plans, and programmes include:

International and European context: The Plan must conform to EU directives in relation to: SACs, water quality, greenhouse gas emissions, and waste. There are no SPAs in the Park. The thresholds for noise based on noise maps and plans have not been exceeded. The Common Agricultural Policy reform will influence the Park's landscape, agriculture, biodiversity, and economy through farmers' compliance with it. The European Landscape Convention requires landscapes to be taken into consideration through planning activities.

UK National Context: The Plan must conform to UK environmental, human rights and disability legislation. Among other elements, the NPMP should contribute to the reduction in CO_2 emissions. It will also require Disability Equality Impact Assessment. The Countryside and Rights of Way Act will also form a context for any policies for public enjoyment of the Park.

Welsh National Context: The Plan should be prepared in accordance with the NPA's Welsh Language Scheme, prepared under the Welsh Language Act, and must conform to Welsh planning policy and guidance.

The Plan should help deliver the outcomes of the Environment Strategy for Wales: integrating environmental considerations; providing environmental education and

information; encouraging responsible behaviour; minimising greenhouse gas emissions; minimising waste generation, promoting reuse and recycling and providing for waste management; managing water resources; safeguarding soil; minimising the impact of mineral working – all in the context of the Wales Spatial Plan.

Regional and Local Strategies: the Unitary Authorities' Community Strategies and the Brecon Beacons LDP will form a context for the Plan, and relevant aspects will be incorporated into it.

The Park area falls within areas covered by three of Wales' four regional transport consortia (South East Wales Transport Alliance (SEWTA), Transport Consortium for Mid Wales region (TRACC) and (South West Wales Integrated Transport Consortium (SWWITCH)). Regional Transport Plans are currently under development by these three bodies and their objectives and measures will need to be taken into account. The Park also falls within areas covered by two of Wales' Regional Waste Strategies (South East Wales and South West Wales). Both of these strategies aim to minimise the adverse impacts of waste on the environment and human health.

The full description of the other PPPs reviewed can be seen in Appendix B.

3.4 Baseline Data

It is fundamental to both the SA and SEA that baseline information is collected to assist in the identification of sustainability and environmental issues/opportunities in the Park. It is also important to consider the implications of the NPMP in its wider context. Baseline data is required to establish the present state of the National Park and its surrounding area and will be used subsequently for comparative purposes when monitoring and evaluating the NPMP and the future state of the Park.

Baseline data sets have been collected from various international, national, regional, and local sources (Appendix A). These data sets span the range of issues associated with the Park's two statutory purposes and its duty, and simultaneously address sustainability and environmental issues pertinent to both the SA and the SEA. Several of these data sets have been used to inform the most recent BBNP State of the Park Report (2006). Additional or alternate data sets may be analysed and used as indicators for future state of the Park reports. It is worth noting that this baseline data report will expand and improve as new data sets become available. The NPA is gathering further evidence to support the preparation of the NPMP and this new information, along with other new baseline information (e.g. LANDMAP studies) will feed into future SA/SEA assessments. All data gathered through this process will inform the Baseline Data Report available in Appendix A.

3.5 Environmental Characteristics and Trends of the Park

The baseline data assembled for this SA/SEA builds on the information compiled in the BBNP State of the Park Report 2006. This report can be accessed at http://www.breconbeacons.org/content/the-authority/planning/strategy-and-policy/npmp/sopre.

The Baseline Data Report (Appendix A) is divided into sections based on three of the principles of sustainability as they apply to the NPMP via the SA and SEA processes. These principles are: living within environmental limits, ensuring a strong, healthy, and just society, and achieving a sustainable economy. The Baseline Data Report includes data, trends and their significance for the Park, and how the NPMP (and LDP) should deal with them.

There have been difficulties in obtaining Park-specific data due to the fact that much information is collected for Unitary Authority areas and the Park straddles nine UAs. Data relevant to the Park are often amalgamated within larger data sets for areas or

conditions not representative of the Park. Consequently, resulting trends from these broader data sets do not always accurately portray conditions or trends within the Park. Separating data relevant to the Park from the broader data sets presents logistical and financial challenges. But, some of these challenges are worth engaging to better characterise the state of the Park and manage it in the future. For many potential indicators identified in Table 5-2, data sets may be unavailable or of poor quality. For many indicators we have used data for Powys, Monmouthshire and Carmarthenshire as these authorities cover the majority of the Park's area.

There are several other sources and topics that could be included in the baseline data report, but due to data unavailability and/or time constraints, they are not present in the baseline appendix. In many cases this is because the data is available at local authority level but not at NP level. As new baseline data becomes available the SA/SEA will be updated where possible, at each stage of the SA/SEA process.

Key information relating to the SA/SEA topic has been summarised in the following sub-sections. The key sustainability and environmental issues affecting the National Park identified in the Baseline Data Report have been included in the SEA framework set out in Section 5 below.

3.5.1 Climatic Factors and Natural Resources

3.5.1.1 Air Quality

The Unitary Authorities carry out Updating and Screening Assessments (USAs) to determine if there are 'hotspot' locations where there is potential for air quality objectives to be exceeded. Updated data sets are forthcoming at Blaenau Gwent and Carmarthenshire, however for the remaining UAs, data shows that the air quality in the Park does not exceed the air quality objectives and is up to standard in the Park. In 2005, approximately 73% of sensitive UK habitats were at risk from acid rain and 66% from the fertilising effects of nitrogen[9]. Even after major reductions in releases of key pollutants, it is likely that a substantial proportion of these habitats will remain a risk. Nine of the SAC sites within the Park are in an unfavourable condition which could be due to these habitats reaching critical loads of nutrient nitrogen and acidity.

There are not any current ammonia monitoring sites in the BBNP, however the three sites that are in close proximity to the Park, which are Llyn Brianne (Powys), Holme Lacy (Herefordshire) and Penallt (Monmouthshire), show that the levels of ammonia are well under the critical threshold of 8.0ug/m^{-3}.

3.5.1.2 Climate Change and Greenhouse Gas Emissions

The UK Climate Impacts Programme has identified that the global temperature has risen by 0.6°C since the beginning of the twentieth century and over the last 30 years winters have been getting warmer and summers drier[10]. Most of Wales and the Park are slightly colder in winter than the extreme western coast, slightly warmer in summer and the growing season is slightly shorter (240-320 days as opposed to 320-365 days on the extreme western coast). The east of the Park (east of a north – south line drawn through Llangynidr in the Park) has a climate that becomes less humid, with colder winters (snow lies longer here), with considerably hotter and drier summers and soil temperatures

[9] Environment Agency, Air Quality (2005)
[10] UKCIP (2002)

getting up to 20°C, which is warm enough to permit the growing of cereals and other arable crops, with good yields[11].

Winters over the last 200 years have become much wetter relative to summers throughout the UK. By the 2080s, summer rainfall in the Park is predicted to decrease by over 15%, maybe over 45% in East Wales, while winter rainfall is predicted to increase, perhaps by more than 15%. This would increase run-off and may also cause increased erosion, loss/changes to habitats and water quality (eutrophication) problems. Droughts followed by flooding would have adverse impacts on soils, rivers, lakes and wetlands.

Global warming is recognised as one of the greatest environmental threats facing the world today. Carbon dioxide (CO_2) accounts for the greatest proportion of greenhouse gas emissions in the UK. Despite a reduction since 1990, UK targets for reducing them were not being met as they were expected to start increasing again after 2005. Table 3-2 shows the estimated amount of carbon emissions in Wales from 1990 to 2002 which is on the decline.

Table 3-2: Estimated emissions, million tonnes carbon equivalent[12]

1990	1998	2000	2002
14.0	13.9	14.7	12.8

Data on the level of CO_2 emissions estimated per capita for 2006 in Powys, Carmarthenshire and Monmouthshire are listed below[13]:

- Powys: 1,105kt CO2
- Carmarthenshire: 1,692kt CO2
- Monmouthshire: 932kt CO2

3.5.1.3 Ecological Footprint

The average global ecological footprint is 2.2 global hectares (gha) per person, while there are only 1.8 hectares of biologically productive area per person available on the planet[14]. In 2003, Wales' overall ecological footprint was 5.16 gha per person, which increased at an average rate of 1.5% per year between 1990 and 2003. The three authorities that have significant percentages of the Park's population are Powys, Carmarthenshire and Monmouthshire, and respectively, their ecological footprints are 5.3gha per person, 5.2gha per person and 5.5gha per person. The estimated Park's ecological footprints are 5.3 - 5.46gha per person[15]. At a local authority level, Blaenau Gwent has the lowest ecological footprint of 4.9 gha per person in 2003 which is still substantially more than at a global level.

Housing accounts for 25% of the 5.16 gha per person's ecological footprint of Wales. At a local authority level Torfaen has the highest ecological footprint for housing at 1.28-1.33 gha/capita and the Vale of Glamorgan has the lowest at 1.09-1.15 gha/capita. Transport makes up 18% of the total ecological footprint of Wales. The average distance people travel each year is growing at a considerable rate and as a result the transport footprint is predicted to increase by 2020.

[11] Ellis, R.G., (1983) Flowering Plants of Wales, National Museum of Wales (based on Bioclimatic Map of Wales, reproduced by permission from Bendelow, V.C. and Hartnup, R. (1980) Climatic Classification of England and Wales, Soil Survey Technical Monography No. 15, Harpenden 1980).
[12] Key Environment Statistic for Wales, WAG, 2007
[13] Defra, Emissions of Carbon Dioxide for Local Authority Areas
[14] EPA Victoria, Ecological Footprint
[15] Sinnadurai, P., (2008) "Future Parks In Future Climates- Scalable Solutions", BBNPA

3.5.1.4 Renewable energy

The BBNPA have recently calculated that if there were a few combined heat and power plants, it could generate up to 5.35 megawatts of electricity, enough to supply 63.5% of the Park's households. It is also additionally feasible to generate 244 kilowatts of hydro-electricity to supply 2.7% of the Park's households. The Park's first community renewable energy scheme was approved in 2004 and since then 2 hydro, 1 photo-voltaic, 3 solar and 2 wind (single turbine) renewable energy schemes have been granted planning permission.

Figure 3-1 shows the number of operational, under construction, consented and submitted on and offshore wind farms in Wales. At the time of writing, there were 24 operational onshore and one offshore wind farms in Wales. Three onshore wind farms are under construction, and six onshore and two offshore consented projects. A further 19 onshore wind farms are in the planning stages. There are no multiple turbine wind farms within the Park; however the potential effects of any future wind turbines would need to be assessed for their impacts on landscape and biodiversity.

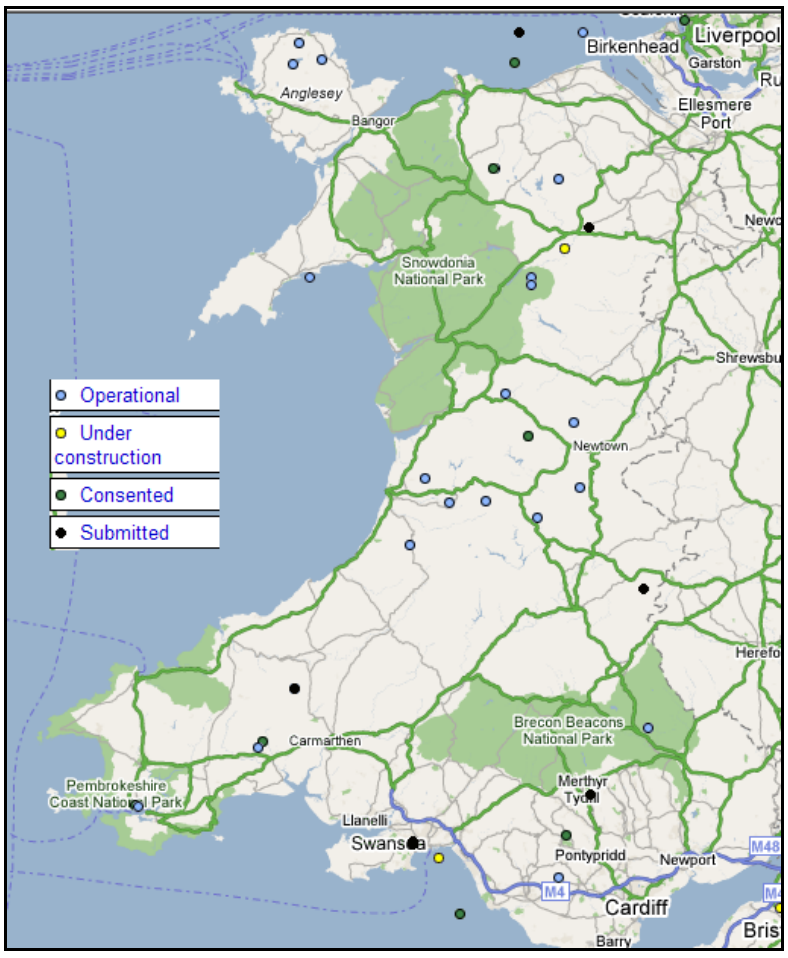

Figure 3-1: Operational, under construction, consented and submitted on and offshore wind farms in Wales[16]

3.5.1.5 Water Quality

The Environment Agency's General Quality Assessment (GQA) scheme has been used to assess the quality of rivers within the Park. The overall water quality of the Park is in 'good' condition. 94.7% of river lengths by chemical quality and 80% by biological

[16] Wales Spatial Plan (topic paper G)

quality have been rated in 'good' condition. The chemical quality of the water in Park is generally rated as 'very good', however, some tributaries of the River Usk from the Black Mountains are rated 'good', while the Afon Enig at Talgarth and the Monmouthshire and Brecon Canal are rated as 'fair' with the lower part rated as 'poor'. The biological quality is 'very good' generally, but the Canal is rated as 'fair'.

During 2007/08 the reservoir stocks based on storage at the Big Five Group, Brenig, Brianne, Celyn and Elan Valley Group reservoirs were higher than the 1995/96 stocks by as much as 35%. These reservoirs are located at varying distances from the Park and supply a growing demand to parts of the UK such as Liverpool and Birmingham. Llyn Brianne is the closest in proximity to the Park and regulates the flow in the River Towy which flows south-westwards through Carmarthenshire.

Environment Agency information on water availability indicates that for the majority of the water management units that cover the Park there is no water currently available and in some cases water is over licensed or over abstracted (see Appendix A).

3.5.1.6 Water availability

The main sources of water within the National Park include the River Wye, the River Usk and the River Tywi which are all Special Areas of Conservations (SACs). The River Usk is 121km long and is one of the largest rivers in Wales. The Usk Catchment Abstraction Management Strategy (CAMS) area encompasses approximately 1169km^2 of mostly rural landscape over 5 local authorities. The River Usk and its upper tributaries have been designated as a riverine SAC, as the habitat provides for nine rare or threatened nationally and internationally important species. The River Usk and its main tributaries are also recognised as an SSSI.

The Usk catchment has been split into three areas of water that can be managed as individual units; the River Usk, Sor Brook and Malpas Brook. The River Usk and Bettws/Malpas Brook Water Resource Management Units are both deemed to be over licensed. The current level of abstraction means that there is no water available at low flows and therefore if further licences were to be issued they could cause unacceptable environmental damages. Water may be available at high flows, with appropriate restrictions. Sor Brook has water available and therefore water is likely to be available at all low flows.

WRMU name	Associated main river	Resource Availability Status				Details of the WRMU are on pages
		Individual WRMU status	Integrated WRMU status	Target status in 2013*	Target status in 2019*	
1	Sor Brook	Water Available	Water Available	Water Available	Water Available	23-25
2	River Usk	Over Licensed	Over Licensed	The Usk Habitats Directive RoC process will determine the level of abstraction where 'no adverse effect' on the integrity of the SAC can be concluded. Please see Section 4.2 for further details.		26-29
18	Bettws/Malpas Brook**	Over Licensed	Over Licensed	Over Licensed	No Water Available	30-33

* For WRMU 2, the level of abstraction determined through the Usk Habitats Directive RoC process is not a CAMS resource availability status target but a level that must be achieved in order to satisfy the Habitats Regulations.

** The name of the watercourse changes from Bettws Brook to Malpas Brook after flowing through Bettws village.

Figure 3-2: Overview of existing water resource availability and target water resource availability at low flows for the Usk Catchment[17]

[17] Environment Agency (2007) The Usk Catchment Abstraction Management Strategy http://publications.environment-agency.gov.uk/pdf/GEWA0307BLTO-e-e.pdf?lang=_e

3.5.1.7 Flood Risk

Around 5 million people in 2 million properties live in flood risk areas in England and Wales. The Park has a significant area of Flood risk zone C2[18] (Figure 3-3). These are areas of floodplain with a high risk from flooding but without a significant flood defence infrastructure. In the Park, the percentage of allocated development land on indicative floodplains have halved from 29% in 1999 to 9.5% in 2006. There are smaller areas of Zone C1 (areas of floodplain having a high risk from flooding which tend to be developed and protected by flood defences) and Zone B (areas known to have flooded in the past evidenced by sedimentary deposits).

There is an increased risk of flooding as a consequence of climate change. Development on the flood plains makes future occupants vulnerable to the risk and reduces the capacity of the river systems to cope with the excess water. Draft Catchment Flood Management Plans (CFMP) have been produced for the Usk and Wye, the Taff and Ely catchment, the Loughor to Taff catchment, the Eastern Valleys catchment and the Ogmore to Tawe (including Thaw and Cadoxton) catchment. As their catchments fall within the Park, these Plans should be taken into account throughout subsequent stages of the SA/SEA and LDP processes.

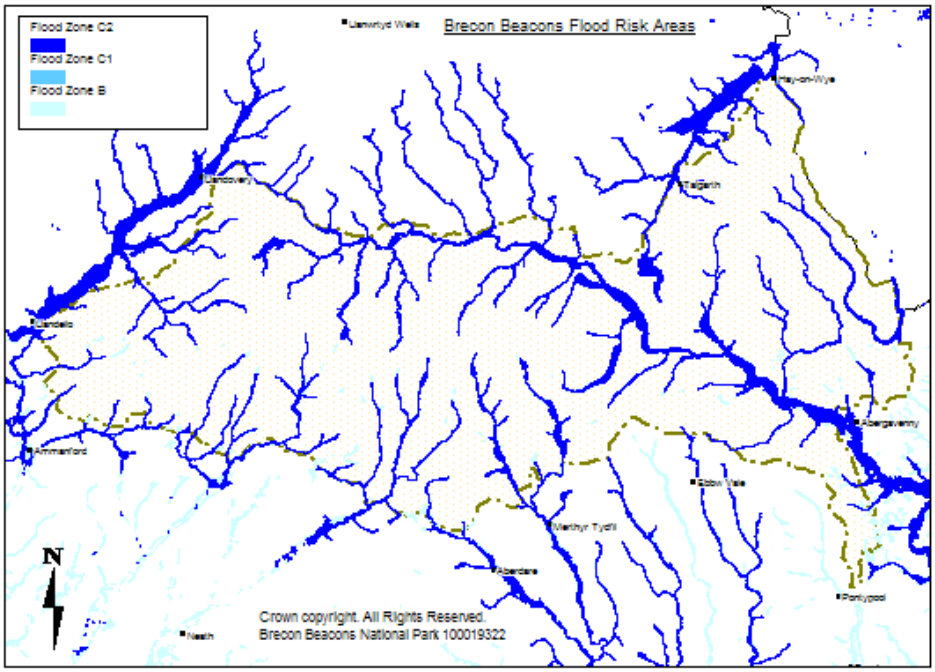

Figure 3-3: Brecon Beacons flood risk areas[19]

3.5.1.8 Groundwater Vulnerability/ Source Protection Zones (SPZ)

Groundwater vulnerability relates to areas where water-bearing rocks (aquifers) are vulnerable to pollution because of the type of soil cover which occurs above them. Major aquifers are capable of yielding large quantities of water for abstracting, whilst minor aquifers are capable of providing lower yields. The majority of the Park is made up of aquifer bearing rock with an area along the southern fringe of the Park being a major aquifer.

Source Protection Zones (SPZ) show the risk of contamination from any activities that may cause pollution in the area. The closer the activity is, the greater the risk of

[18] TAN 15
[19] Sinnadurai, P., (2008) "Future Parks In Future Climates – Scalable Solutions", BBNPA

pollutants entering the water. Within the Park, there are 16 SPZs, located at Halfway, Brecon, Penderyn, Llyad Llwchwr, Rock Spring, Shon Sheffery, Rhymney Bridge, Ffynnon Gisfaen, Llanover, Llanwenarth Citra, Llwyn Du, Tynywern, Cwn Cegyr, The Wern, Llanbedr Springs and Llanthony.

3.5.1.9 Contaminated Land/Landfill/Quarries

No contaminated land has been identified in the Park, according to information received from the Unitary Authorities, which are responsible for collecting it.

There are no operational landfill sites in the Park, however there are several old landfill sites that are no longer used.

The numbers of working quarries and mines decreased between 1975 and 2005. In 1975, there were 9 limestone quarries, however only 2 remain due to the decline of the steel industry and aggregates market forces. Since 2005, there has been an increased demand for local building stone which has encouraged some small quarries to open or reopen.

3.5.2 Special Qualities and Landscape

The BBNP includes the Black Mountains in the east and Y Mynydd Du (The Black Mountain) in the west. In the south there are some of the plateaux and ridges that form the northern rim of the South Wales Coalfield. The broad valleys of the River Usk cuts across these mountains and the Rivers Tywi and Wye border the Park. The Park covers 520 square miles (1,344 square kilometres) and lies between rural Mid Wales and the industrial South Wales Valleys. The bulk of the Park is underlain by Old Red Sandstone rocks of Devonian age[20].

Fforest Fawr (the Great Forest) is the range of mountains between the Black Mountain and central Brecon Beacons and has become the first Geopark in Wales or in any UK National Park.

3.5.2.1 Light Pollution

Large parts of Wales, including much of the National Park are among the darkest parts of the UK. A slight increase in light pollution is shown between 1993 and 2000 (Figure 3-4). The red in the figures below indicate areas with the highest levels of light pollution and the dark blue indicate areas where light pollution is not detected. However, although the situation may be improving as non spill street lighting is being used more often in the Park, especially on major roads outside settlements to reduce light pollution, increasing urbanisation in the Park is counteracting these improvements.

[20] State of the Park (2006)

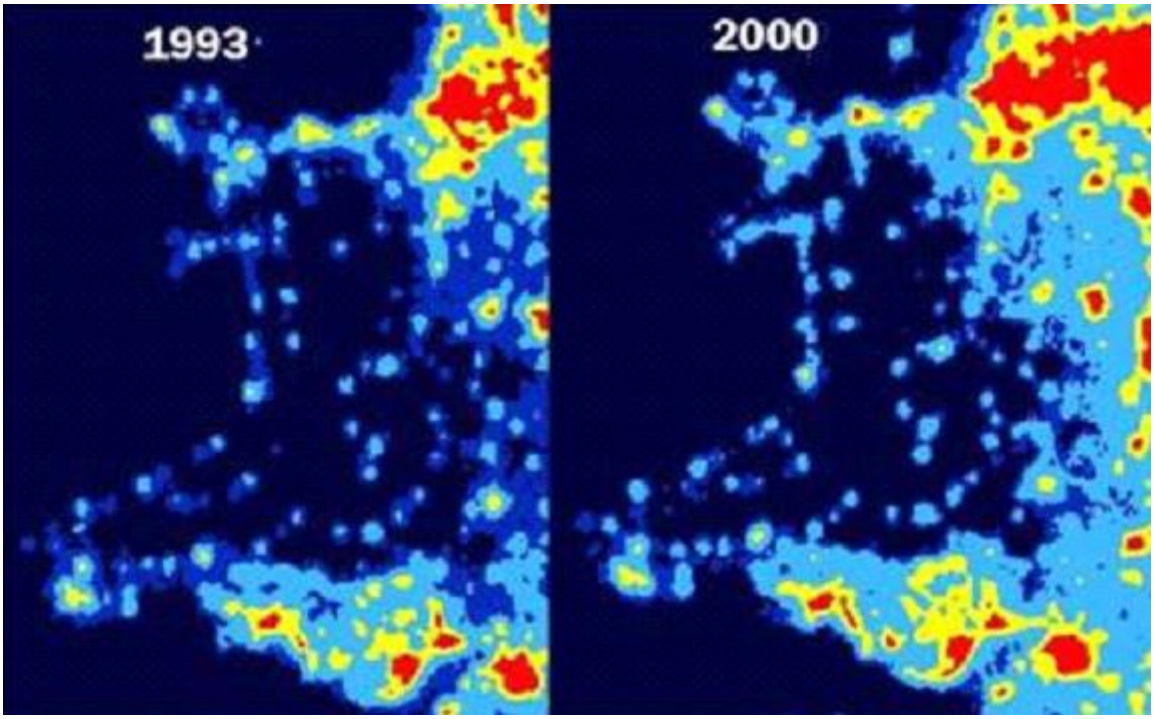

Figure 3-4: Satellite images if the UK showing light pollution[21]

3.5.2.2 Common Land/ Other Open Country

Many commons throughout Wales were lost under the Enclosure Acts of the early nineteenth century however there was an increase in public interest in preserving commons in the twentieth century[22]. Those remaining were legally registered under the Commons Registration Act 1965.

In 2005, 36.7% of the Park was registered common land, and is of supreme importance to the Park as it is the second largest land use type, as well as being the oldest surviving form of agricultural practice. Significant proportions of common land are also SSSIs and other protected sites. Common land is also the basis of upland agriculture and prime recreational use, however most activities require permission from the owner of the land and usually the agreement of the commoners too. Some activities such as riding motorbikes on common land without the owner's permission are illegal.

Open country is important in its own right, as a link between commons and a link between commons and more intensively farmed land. Between 1985 and 2005, there had been an increase in the amount of open country from covering 3.2% of the Park to 5.8%. This increase could be mainly due to the classification of additional land as "open" by the Countryside Council for Wales under the CROW Act.

3.5.2.3 Woodland

The percentage of all types of woodland in the Park has increased from covering 13.8% in 1985 to 14.6% in 2005. The apparent increase of 899 ha could be due to the different ways of measuring Woodland, particularly broadleaved, is a very important landscape feature and habitat, which offers climate change mitigation (in young woodland), flood control and water conservation. Broadleaved woodland has increased within the Park from 4.8% in 1985 to 5.7% in 2005.

[21] Campaign to protect rural England website 19.7.06
[22] Brecon Beacons National Park Authority, Common Land

3.5.2.4 Farmed Land

In 2007, 57.2% of the land within the Park was farmed land, and farming is crucial to all aspects of the Park's qualities, landscape, biodiversity, public enjoyment and its communities. The area of farmed land within the Park has decreased since 2002, whereby 57.7% of the land within the Park was farmed land. While farming in the Park is under stress, as elsewhere, the area of farmed land is not a very good indicator of its health due to the way data is collected. Most of the open country recorded above will also be counted as farmed land.

3.5.2.5 Agri-environment Schemes

Between 2004 and 2005 the area of the Park under Tir Gofal (Wales agri-environment scheme), and the number of holdings in the schemes increased by 15, covering 16% of the Park. The existence, take up, value and monitoring of agri-environment schemes and cross compliance could significantly benefit landscape, biodiversity and other goals. . Tir Gofal combines existing schemes such as Environmentally Sensitive Areas and Tir Cymen to encourage farmers to maintain and enhance the countryside. The future of Tir Gofal is uncertain as payments have been affected by the introduction of Tir Cynnal and cross-compliance. The removal of the Tir Mynydd income by 2008 will have an adverse effect on the uplands and hill farms.

3.5.3 Soils and Proportion of High Quality Agricultural Land

Peat and organo-mineral soils act as important stores of carbon and should be afforded protection. The distribution of organo-mineral soils are evenly distributed throughout Wales and a high concentration is found in the Park. Peat soils are concentrated towards the north, and only a small concentration is found in the Park.

Agriculture makes up a relatively small percentage of economic activity in Wales as only 0.2% of Wales' agricultural land is classified as Grade 1 and 2.3% is Grade 2. The majority of the land within the Park is covered by lower grades. 80% of the land is used for farming and forestry and supports other wider countryside activities such as tourism and conservation.

3.5.4 Biodiversity and Geodiversity

European Designations

The Brecon Beacons National Park covers an area of biodiversity interest containing 11 internationally important biological Special Areas of Conservation (SAC) (Blaen Cynon, Brecon Beacons, Coed Y Cerrig, Coedydd Nedd a Mellte, Cwm Cadlan, Cym Clydach Woodlands, Llangorse Lake/ Lyn Syfaddan, River Usk, River Wye, Sugar Loaf Woodlands, and Usk Bat Sites) covering 2% of the Park. Nine of these have features that are in unfavourable condition with only two having all the features of designation in a favourable condition. The River Tywi is a designated SAC, 1km outside of the BBNP boundary but it is within the potential influence of the plan and should therefore be assessed.

National and Local Designations

There are also 64 nationally important biological Sites of Special Scientific Interest (SSSI) covering 15% of the Park (Figure 3-5). Within these SSSIs, there are 82 biological "features of importance", the condition of which is: 29% 'favourable'; 55% 'unfavourable'; 15% 'unknown'; and 1% 'partially destroyed'. Of those which have features in unfavourable condition, 24% are recovering, but 24% are also declining (2005). The poor conditions of these SSSIs could be due to the lack of knowledge on how to manage these unique habitats. 22 of the features are on land owned/ managed

by the NPA. 17 of these are in an unfavourable condition; however the National Park Authority and public bodies have a statutory duty to have these SSSIs in a favourable condition.

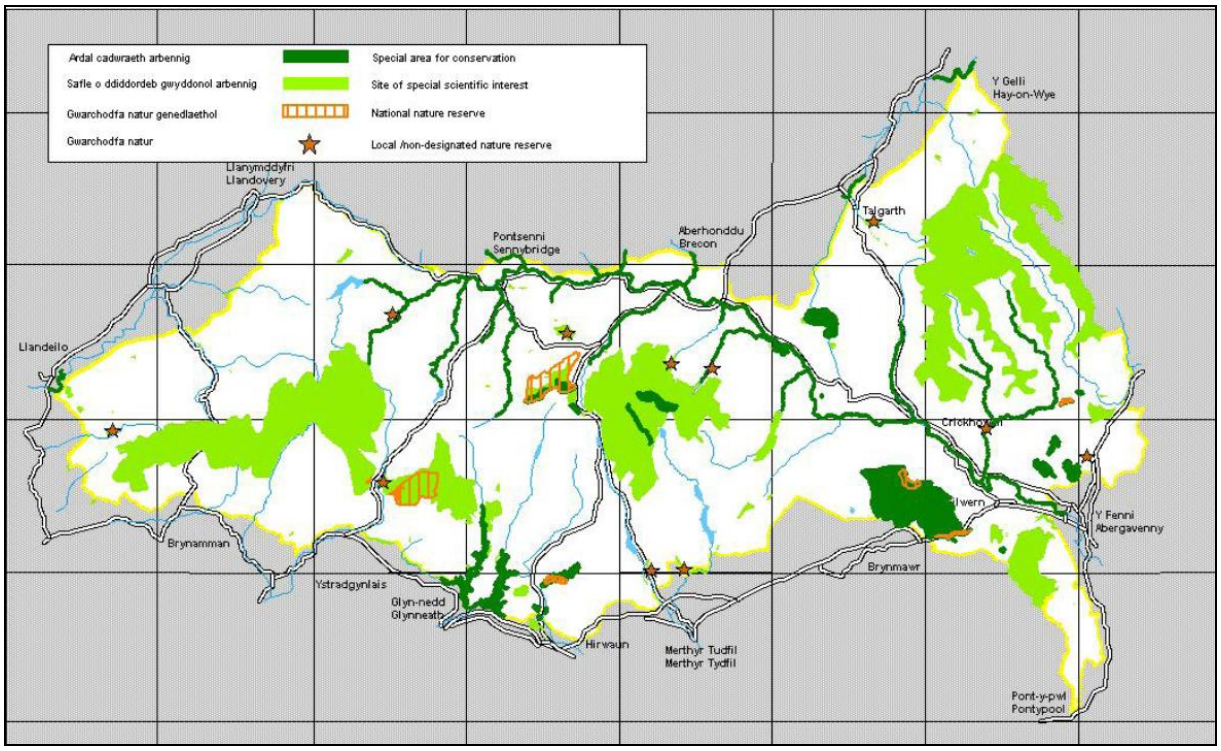

Figure 3-5: SSSIs and Nature reserves in the BBNP[23]

3.5.4.1 Priority Habitats and Species

The area of the Park covered by UK Biodiversity Action Plan (BAP) habitats is 22%. There are 21 UK Priority habitats and 48 species included in the BBNP Local BAP, 2006. There are 17 habitats of local priority and 27 species. These are the most important habitats and species on which the conservation effort is being concentrated. Further details on LBAP habitats and species are provided in Appendix A.

The law for protecting bats is considerably stricter than it is for most other animals. Since 2007, the effective protection for bats now comes from Schedule 2 of the Conservation (Natural Habitats &c) Regulations 1994. Changes to legislation, and devolution, mean the law is difficult to summarise succinctly across the UK, but the strong legal protection for bats and roosts remains[24]. The main threats to bat populations are if there is a high rate of redevelopment. The only way to reduce the risk is to require ecological surveys for all such buildings, irrespective of whether or not evidence for bats has been found previously.

Four species of bat have been identified in the Park. The Lesser Horseshoe bat is a SAC and LBAP mammal. In 2005, 12-15 known nursery sites were identified and approximately 1,100 breeding females. Their numbers vary on location as there is an upward trend on the River Usk valleys sites, whilst the Wye valley sites are more at risk. The Common Pipistrelle bat is another LBAP mammal and data from 2005 shows that it is widespread throughout the Park. The Daubenton bat and the Noctule bat have declined due to disturbance of habitats, loss of tree roosting sites and food availability. The Local Biodiversity Action Plan (LBAP) for habitats and species show the types of

[23] BBNPA GIS data September, 2005
[24] Naturenet, Bats and the Law

habitats and species found within the NP. Table 3-3 summarises the amount of hectares (ha) each habitat covers within the Park, the number of species, breeding pairs and for those that the number is unknown, their location and habitat type. The complete table is available in Appendix 1a.

Table 3-3: Local Biodiversity Action Plan Habitats and Species

Local Biodiversity Action Plan Habitats and Species	
Habitat Action Plans	
First Tranche 2000	**Extent in the National Park**
Acid grassland	2400 ha of lowland acid grassland, (6% of the total cover for Wales).
Calcareous grassland	Lowland: 120 ha but probably under recorded. Upland: 490 - 500 ha
Cliff, rocks and scree	No quantitative data.
Dwarf shrub heath	Upland heath: 9600ha - about 14% of the Welsh resource (5630ha dry heath, 660ha wet heath, 3320ha grass-heath mosaic). Lowland heath: 410 ha (41ha dry heath, 120ha wet heath, 250ha grass heath mosaic.
Limestone pavement	41 ha
Neutral grassland	124ha
Raised and blanket bog	Raised bog: 0.8 ha, with 17 ha of modified wet bog. Blanket bog: 1093 ha, including 11 ha in the lowlands. In addition, there are a further 2027 ha of wet modified bog, 1832 ha of dry modified, 119 of bare peat and 3859 ha of degraded blanket bog.
Reed-beds	11 ha
Rhos pasture	2300 ha
Rivers and streams	The Upper Usk SSSI covers about 300ha within the Park.
Woodland (native beech, wet woodland, upland ash, upland oak and lowland mixed broadleaf)	Upland ash woodland: 630ha Upland oak woodland: 2800ha Wet woodland: 1100ha Native beech woodland: 300ha Lowland broadleaf woodland: 952ha
Second Tranche	**Extent in the National Park**
Action plans under development for Ancient species rich hedgerows, Bracken, Buildings and gardens Caves, Cereal field margins, Coniferous woodland (for birds), Fen and swamp, Flushed and tufa springs, Linear habitats, Standing open water and Scrub	
Species Action Plans	
Curlew	Approximately 20-25 pairs.
Dormouse	Low numbers in Wales, where it occurs at the western extremes of its geographical range.
Golden Plover	Approximately 10 pairs.
Earthtongue	It occurs in heavily grazed turf on the North Crop Limestone in the BBNP

Lawpig	55-65 breeding pairs.
Lesser horseshoe bat	Concentrated in the lowlands. Some hibernation sites being found at higher levels within the cave systems.
Marsh fritillary	16 colonies recorded since 1990.
Nightjar	Occurs at two sites, Pant Mawr and Glasfynydd, in the National Park. (Approximately 10 churring males in total.)
Otter	Good populations in the River Usk with most tributaries utilised. The 1991 Survey of Wales found otters signs at 66% of sites within the NP but now more recent local surveys suggest 80% is now a more likely figure.
Red wood ant	Recorded at 3 sites with a total of 27 nests
Twaite and allis shad	Shads may migrate and spawn as far upstream as Crickhowell, though there are no confirmed spawning sites within the NP.
Water vole	Monmouthshire-Brecon Canal - sightings at Brecon, Llanfrynach, Govilon, Gilwern and Cockalofty (Black mountains).
White clawed crayfish	High.
Action plans under development for Bechsteins bat, Greater horseshoe bat, River jelly lichen, Arched earthstar, Slender green feather moss, Pink meadow cap and Violet crystalwort.	

3.5.4.2 Geodiversity

In 2005, there were 19 geological SSSIs covering 12% of the Park. Within this area there were 37 features of importance, of which 51% is in an unfavourable condition, 30% in a favourable condition and the remainder is unknown. Geodiversity has been neglected in the past, but has come to prominence with designation of the Fforest fawr Geopark.

3.5.5 The Historic and Built Environment

Blaenavon Industrial Landscape was designated as a World Heritage Site in 2000 and more than 40% of the site falls within the Park. From the mid 18th Century the people who lived in and around Blaenavon played a leading role in the UK iron and coal industries and helped change the world through the Industrial Revolution[25].

The Park contains four Conservation Areas located within Brecon, Crickhowell, Hay-on-Wye and Talgarth which give protection to unlisted buildings and trees in the area.

In 2005, 1,711 listed buildings, including 29 Grade 1 and 86 Grade 2*, were identified within the Park. The Park also contains 256 Scheduled Ancient Monuments with 95.9% in a stable or favourable condition, 3,700 other archaeological features, 6 Historic Parks and Gardens, 4 landscapes of outstanding historic interest and 3 landscapes of special historic interest. Within the Park, there are 6 areas designated as historic landscapes.

3.5.6 The Park's people, communities and understanding and enjoyment of the Park

The BBNP as an administrative area covers parts of 9 of Wales' 22 Unitary Authorities which are Powys, Carmarthenshire, Monmouthshire, Rhondda Cynon Taff, Merthyr Tydfil, Blaenau Gwent, Torfaen, Neath Port Talbot and Caerphilly. The National Park Authority is the planning authority for the National Park area, while the constituent Unitary

[25] Blaenavon Industrial Landscape, World Heritage Site

Authorities retain responsibility for all other local government services within their areas of the Park. The NPA therefore works in close partnership with these authorities, who all (except those with no population) appoint members to serve on the Authority.

The Park's resident population in 2001 was 32,295 which had increased to 32,909 in 2005. The Park's population has a predicted negative natural change but has increased by net in-migration and it is predicted to rise to 35,059 by 2016. This combined with a predicted fall in average household size gives a predicted rise in the number of households of 2,040 over the same period.

Figure 3-5 shows the demography of the Park's population compared to the demography of Wales in 2001. The Park had a lower proportion than Wales of females in all age groups up to 30-34 and a lower proportion of males in all ages groups from 55-59 to 90 plus. The birth rate in the Park is slightly below the Welsh rate and the proportions of people in age groups over 60 are slightly higher. The resident population of Powys in the Park has slightly increased from 68% in 1991 to 20% in 2000. The relative increase in Powys could be due to the greater availability of housing land in this area, which comprises 66.1% of the Park

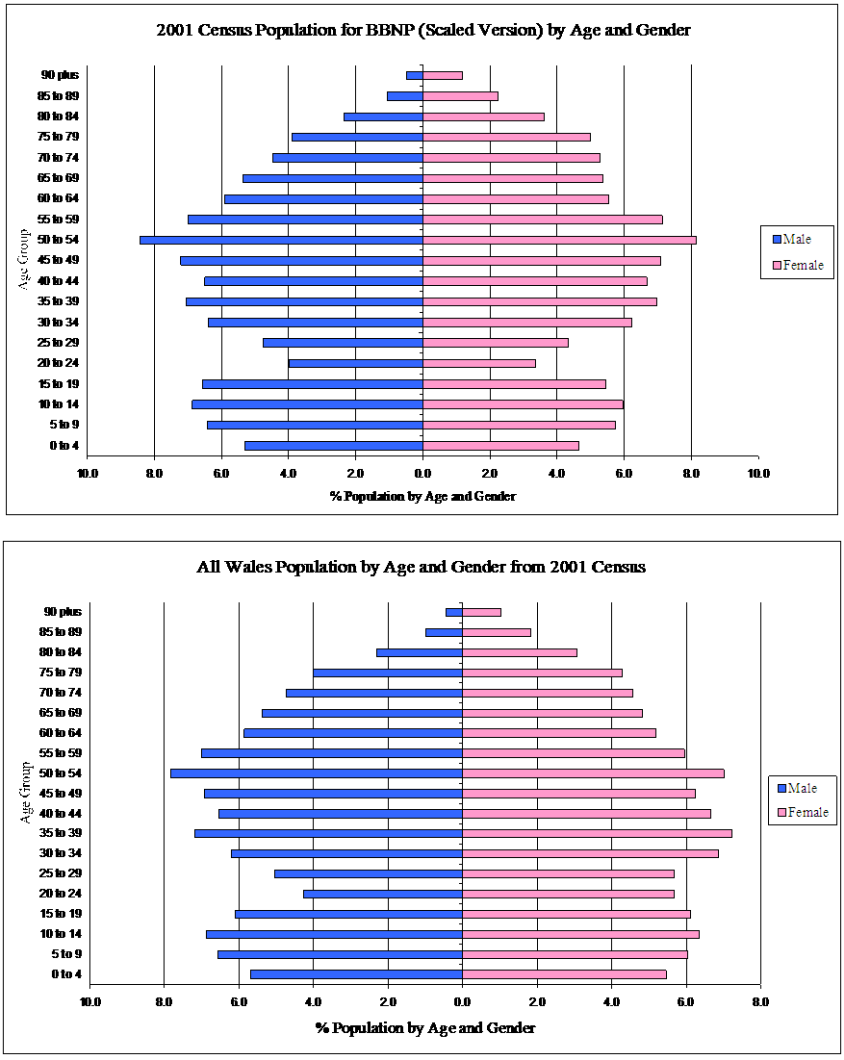

Figure 3-6: Demography of the Park's population compared to the demography of Wales[26]

[26] 2001 Census of Population & Housing Standard Table SO1, derived for BBNP by Cardiff Research Centre 2003

Within the Park there are 42 communities. Village and church halls and/or other meeting spaces available to the community are available in 35 settlements in 25 community council areas.

In 2005, the average house price within the Park's main postcode areas was £193,492 compared to the Welsh average of £141,860. The average house prices are higher in Powys (which includes 66.1% of the Park) than the Wales average, which is brought down by very low values in the Valleys. Despite prices being higher than the Wales average, the price to income ratio is lower in Powys, at least for smaller properties.

3.5.6.1 Health

As most of the Park's population live in Powys (70%) or Monmouthshire (21%), the data obtained for these can be used as a guide to the overall health of people living in the Park. Health statistics in Powys shows that it has a better health profile than average for Wales. There is a growing older population that will influence the demand on health services in the future. Education and unemployment are significantly better than the average for Wales, which are key determinants for overall health. Powys also has lower premature death rates than the average for cancer and heart disease. However, Powys has a worse than average rate for road traffic accidents, which could be attributed to the rural environment; this is also the case in Monmouthshire.

In Monmouthshire, the health statistics are significantly better than the Welsh average. It has similar positives as Powys but it also has lower rates for suicide, smoking and premature deaths from cancer compared with the average[27].

3.5.6.2 Index of Multiple Deprivation (IMD)

In Wales there are 1,896 Lower Super Output Areas[28], within the Park, 50% of the LSOAs present, have a higher overall deprivation ranking than in 2004. In the Park, 38 Super Output Areas (SOAs) were identified, of which 30 fall into the bottom quartile, i.e. the most deprived for overall deprivation. The list below indicates which areas within the Park are the most and least deprived in the income, employment, health, education, access to services, housing, physical environment and the community safety domains.

- The overall most deprived LSOA within the Park is Vaynor 1 (Merthyr Tydfil).
- A large proportion of the LSOAs within the Park are the least deprived in the income domain. The most deprived area within the Park is St John 2 (Brecon).
- 20 LSOAs within the Park are the least deprived in the employment domain. Vaynor 1 (Merthyr Tydfil), Glanaman 2 (Ammanford) and St John 2 (Brecon) are the most deprived areas.
- Brynmawr 1 (Blaenau Gwent) is the most deprived area in the health domain; however the majority of the LSOAs in the BBNP are the least deprived.
- St John 2 (Brecon) and Vaynor 1 (Merthyr Tydfil) are most deprived areas within the Park for the education domain, however more than two thirds of the areas are the least deprived.
- Figures show that for the access to services domain, 24 of the LSOAs within the Park are the most deprived, the least deprived area is St Mary 1 (Brecon).
- The majority of the LSOAs within the Park for the housing domain are the least deprived, however the most deprived area is St Mary 1 (Brecon).

[27] Wales Centre for Health

[28] Lower Super Output Areas (LSOAs) are statistical boundaries used by the Office for National Statistics to provide statistics at a local level. LSOAs fit within Ward boundaries and have a minimum population of 1,000, and a mean population of 1,500.

- In the physical environment domain, Cantref 1 (Brecon), Castle and Llanfoist Fawr, Gwernyfed (Brecon), Rhigos (Aberdare), Maescar / Llywel (Brecon) and Llangattock LSOAs are most deprived areas within the Park and 5 areas are the least deprived.
- The majority of the LSOAs within the Park are the least deprived for the community safety domain. The most deprived areas within the Park are St Mary 1 (Brecon), St John 2 (Brecon) and Hay (Hay-on-Wye).

3.5.7 The Park's economy

Data from 2001 showed that 65.2% of the population within the Park are economically active and 2.7% are unemployed. Of the 34.8% that are economically inactive, 16% are retired. The Park has a slightly larger proportion of economically active people than the Wales average (Figure 3-7).

The most significant employment category in the Park is public administration, and 33.1% of the economically active residents within the Park work within the 'public administration, education and health' sector. During the time period of 1991-2001 there were increases in people employed in the manufacturing, catering and financial services, while decreases were recorded in the agriculture, water and transport/communication sectors.

In agriculture, the number of full time principal farmers has decreased, which will have a negative impact on the availability of skills and resources to carry out land management for conservation. Between 2002 and 2004, there was a slight decrease in most of the aspects of agricultural activity. This was not unique to the Park area, but is part of a wider trend. A continued decrease in farming as a full-time way of life, and in family-run farms might cause changes in the Park's society and an increase in the size of farm holdings could have effects on the landscape and biodiversity.

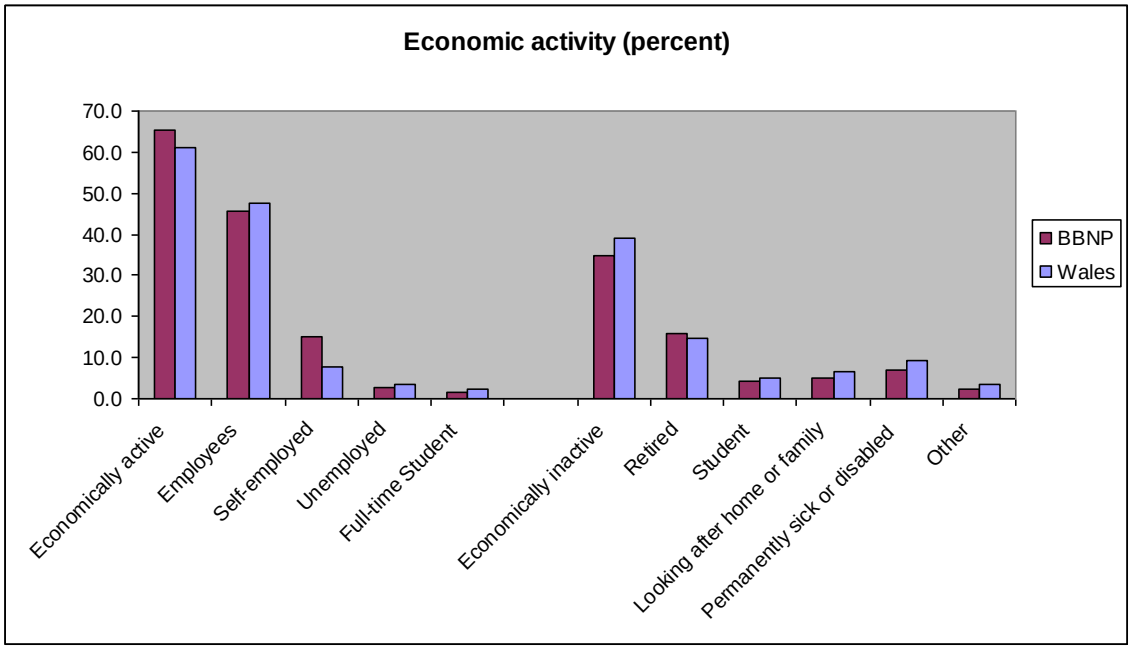

Figure 3-7: Comparing the level of economic activity in the BBNP and in Wales[29]

[29] 2001 Census as quoted in BBNP Local Plan 1999

3.5.8 Sustainable Tourism

Each year the BBNP is visited by some 3.8 million people who spend around 4.2 million days there[30]. In 2003/2004, there were a total of 3,975 visitor bed spaces in non-serviced accommodation and 1,686 visitor bed spaces in serviced accommodation. In 2004, there was a substantial increase over 2003 in the percentage rate of occupancy of beds in serviced accommodation during most of the summer months.

The tourism revenue in all sectors of accommodation type had increased from 2001 to 2004, apart from "staying with friends of relatives". Many of the tourism businesses within the Park and the communities that rely on their income benefit greatly from these visits. Tourism revenue had increased in all sectors such as indirect expenditure and shopping from 2000 to 2004, excluding data from 2001, the year of Foot and Mouth.

Amongst other data, visitors to the Park have steadily increased over the last five years (2000-2004) with about 6% pa growth, which is a combination of day and staying visitors. It has been ascertained that open access is a very important recreational resource in the Park, with 47% of the Park being legal open access.

There are various different attractions for visitors to the Park, and this is of significant importance to BBNPA in ensuring the Park's tourist industry and local communities thrive.

3.5.9 Sustainable Transport

Transport is one of the negative environmental impacts of the National Park. Not only the resident population of the Park's mode of transport, getting around and managing the landscape, but also those of businesses and visitors.

At the time of the 2001 census, 16.83% of households did not own a car or van, compared to a Welsh average of 25.95%[31]. Data from the BBNPA's visitor survey showed that 84.3% of respondents used a car, and they stated it was the main mode of transport used by visitors to access the Park. Between 2003 and 2004, the number of days spent by tourist cars on the Park's roads increase overall by 4%. During the summer months, vehicle activity peaked to 130,000 vehicle days in 2004.

There are a number of bus services, but the Park is generally not very well served, especially in the evenings, Sundays and bank holidays. There are no railway stations within the Park, but there are stations at the Park's boundaries. The potential of railways to bring visitors to the Park is not being fully realised, however there are poor linkages to the Park from the train stations due to poor bus services and cycleways.

Within the Park there are nearly 2,000km of pubic rights of way. Of these, 62% are classified as being 'easy to use', a percentage which is higher than in some areas but still in need of improvement. The Rights of Way Improvement Plan provides a framework for improving ease of use as well as for improving the network.

[30] BBNPA
[31] Census of population data profile

4 Consultation on the Scoping Report

4.1 Background

Consultation is a mandatory requirement for SA/SEA and is required at more than one stage of the process. To date one consultation exercise has been undertaken.

4.2 The Scoping Consultation Process

It is a legal requirement under the SEA Regulations for Wales to consult the designated consultation bodies; Countryside Council for Wales, the Environment Agency and Cadw, on the proposed scope of the SEA.

Consulting on the proposed scope of an SEA is commonly undertaken through the production of a 'Scoping Report'. Although not a mandatory requirement, Scoping Reports serve a useful function in SEA in bringing together vital information which can be used to facilitate consultation with stakeholders.

A Scoping Report was prepared for the emerging NPMP, and was consulted on during September/October 2007. In addition to the designated Consultation Bodies (Environment Agency, Countryside Council for Wales (CCW) and Cadw), it is considered good practice to extend consultation on the proposed scope to other key stakeholders. To this end a wider range of organisations were contacted including amongst others community groups, health boards and environmental groups. A full list of organisations that were consulted on the Scoping Report is available in Appendix C.

The following organisations responded to the Scoping Report:

- Environment Agency; and
- Countryside Council for Wales (CCW).

Most responses provided useful additional baseline data or highlighted additional plans and programmes to be included in the review. All appropriate suggestions have been adopted by the sustainability appraisal. A summary of the consultation responses and the actions taken in response can be found in Appendix C.

In addition, to these comments, the SA/SEA has also taken into consideration comments received on both the LDP Scoping Report and LDP Initial Sustainability Appraisal Report. The LDP Initial Sustainability Appraisal Report was consulted upon between the 7th January and the 4th March 2009.

5 Environmental and Sustainability Issues and SA/SEA Framework

5.1 Identifying Environmental and Sustainability Issues

The SEA Directive requires the identification of existing environmental issues which are relevant to the Plan. As the NPMP relates to 'the conservation and enhancement of natural beauty, wildlife and cultural heritage' (the first purpose of designation) with regard to the entire Park, most environmental matters are relevant to it.

Sustainability appraisal is not such a prescribed process as SEA, and it normally relates to emerging strategies and policies within plans. However, as the SA and SEA are being carried out as one process for the NPMP, it makes sense to include non-environmental (i.e., socio-economic) sustainability issues here as well.

The SEA Directive requires the identification of existing environmental and sustainability issues which are relevant to the NPMP. These issues have been detailed in the SA/SEA Scoping Report. Table 5-2 sets out the environmental and sustainability issues which have been identified in the National Park area, through the following means:

- WAG and CCW guidance;
- Review of other policies, plans, and programmes;
- Analysis of the baseline information that is currently available for the Park;
- A workshop with key NPA staff;
- Informal and formal consultation with the Consultation Bodies; and
- Workshops with stakeholders.

Table 5-1: SA/SEA Topics and issues identified

SA/SEA Topic	Issues Identified
Climate change	Increase in the risk of flooding.
	Development in the floodplain
	Increase in the risk of drought.
	Increase in the risk of erosion, habitat loss and water quality.
Greenhouse gas emissions	Targets for Greenhouse gas emissions are not being met.
Air quality	Main outstanding issue is acid rain (nitrate deposition) originating outside the park.
	Potential issue with ozone levels
Water quality	The causes of some waters being biologically and chemically less than 'very good' needs to be addressed.
	A large majority of the NP falls within groundwater vulnerability zones.
	Issues with groundwater contamination from old mineworks.
	Need to improve the water quality at the lower part of Monmouthshire Canal.
	Catchment management as the most cost-effective means of conserving water and improving water quality, versus expensive and intrusive water treatment works (new one at Talybont, new one sought in Upper Swansea Valley).
Water quantity	The effects of climate change on the abundance or limitations of water; River Usk is at or close to maximum abstraction capacity.

	Reservoirs run low or empty during prolonged drought.
Soil and geodiversity	Risk of soil erosion and reduction from grazing animals, walkers and other recreational activities.
	NP contains areas of peat and high carbon soils already degraded, compacted and eroded.
	51% of geological SSSIs in the park are in an unfavourable condition.
Biodiversity	Threats to biodiversity from habitat loss, pollution and the anticipated effects of climate and agricultural change.
	Of the 11 SACs in the NP, 9 have features that are in an unfavourable condition.
	55% of SSSI biological "features of importance" in the NP are in an unfavourable condition. Of those owned/managed by the NPA 77% are in an unfavourable condition.
	Continued risk to bat populations from built development; continued risk to other European Protected Species from declining hedgerow and coppiced woodland management (dormice), water levels and pollution (trout, salmon, twaite and allis shads, sea, river and brook lamprey, bullhead, white-clawed freshwater crayfish, otter, poorly planned development (great crested newts)
	Many of the LBAP habitats are currently declining.
	Knowledge gaps relating to the status and distribution of Species of Principal Importance to Wales and the status and condition of Habitats of Principal Importance to Wales (NERC list S42).
	Residual impacts of the natural gas pipeline travelling through the BBNP, which affects both the Rivers Usk and Wye SACs, numerous European Protected Species, 11 Affected Locations and farmland that has been poorly reinstated.
	Increasing abundance of riparian invasive plant species, particularly Japanese knotweed (also along roadsides) and Himalayan balsam, as well as Giant Hogweed, Cotoneaster (on limestone pavement and cliffs), potential increase by Rhododendron, grey squirrel.
	Increase in the risk of damage to flora and fauna from careless recreational use of wetlands.
	Pressure on the Park's biodiversity from the number of economic and social activities
Landscape, cultural heritage and the built environment	Lack of management of historic landscapes, scheduled ancient monuments and other archaeological features
	Affects of the natural gas pipeline on cultural heritage (3 Landscapes of Outstanding/Special Historic Interest), at least 1 historic park and garden and the NP landscape in general, as a consequence of the risk and possible likelihood of poor aftercare and final restoration.
	Adverse effects of changes in agricultural and rural development on the Park's landscape character and features.
	Increase in risk of quality and character of the built environment and cultural traditions.
	Loss of tranquillity within the Park.
	Noise/tranquillity issues in relation to MoD activities.
	Changes to the NP resulting in changes to agricultural practices. For example fewer people are exercising their grazing rights, and the anticipated decline in hill farming, thereby undermining the principal means of managing the Park's emblematic uplands and achieving essential improvements to this management.
Population and human health	Overall increase in population is expected via in-migration.
	Increase in the cost of housing in an area with already a high ratio of house price to income.
	The provision of affordable, low environmental impact and energy efficient housing for local people with fundamental services.

	Range of implications for the National Park from energy consumptions to planning maintenance of infrastructure to social services.
	Seasonal population fluctuations, impacting on communities, facilities and infrastructure.
	Compared to the rest of Wales health indicators for the NP (based of figures for Powys and Monmouthshire) are all above the national average (positive), with the exception of "Death from Road Traffic Accidents" which is significantly below (negative).
	Some of the rural areas within the Park suffer from poor access to local services.
Housing	A lack of land available for housing development within Brecon Town.
	Whilst the population of Brecon is projected to increase, the demand for housing is expected to increase at a faster rate. Factors contributing to this include the increase in buy-to-let investments, rising second home ownership and a reduction in the average number of people in each household.
	An identified shortfall in the level of affordable housing stock, primarily a result of a rising cost of land and an already limited number of available plots.
Economy	Employment figures are increasingly concentrated in limited industries.
	The agricultural industry employment figures are decreasing, which reduces the availability of skills and knowledge for land management of conservation.
Material Assets: Transport, Waste, Infrastructure	Lack of railway transport infrastructure and use of services is low.
	Increasing dependence on private vehicles as most of the Park is not well served.
	Need for improved rural transport.

5.2 Environmental and Sustainability Objectives

The purpose of the framework for the SA/SEA, set out in Table 5-2, is to provide a way in which the effects of the plan can be described, analysed, and compared. This process involves considering the content of the NPMP against identified SA/SEA objectives.

The third aspect of the framework consists of the questions that need to be asked in order to assess the effects of the NPMP on the environment, sustainability, and SACs. These are set out in Table 5-2.

The issues headings in Table 5-2 are taken from the SEA Directive, with the addition of sustainability issues which are not otherwise covered.

Potential indicators to use in monitoring are set out in the far right column of Table 5-2. The indicators that are selected for monitoring will be finalised later in the SA/SEA process and agreed upon NPMP adoption.

Table 5-2: The SEA/SA and framework issues, objectives and questions

TOPIC: CLIMATIC FACTORS		
ISSUE Unsustainable energy use. Effects of climate change: Increase in the risk of flooding. Development in the floodplain. Increase in the risk of drought. Increase in the risk of erosion, habitat loss and water quality.		
TREND The whole character of the park could change, including traditional farming, with loss of upland flora. Climate change will exacerbate flooding and drainage problems. Human lives will be put at risk. Buildings, businesses, and communities will be negatively affected by increased flooding associated with more severe storms and rain events. Changes in soil moisture content could affect buildings and infrastructure through subsidence and heave.		
SEA/SA OBJECTIVES	**QUESTIONS: will the proposals in the plan…?**	**INDICATORS (Source of data)**
1. Ensure that adequate measures are in place to adapt to the impacts of climate change.	…reduce - where practical - vulnerability to the effects of climate change? …mitigate against flooding, or drainage problems? …migrate development away from the floodplain where possible? …have compliance with the objectives within the Water Framework Directive? …encourage new development to be resilient to climate change? …provide habitat corridors to allow species to adapt to the changing climate?	Compliance with objectives under the Water Framework Directive Range contraction/expansion of species in SSSIs (CCW) No. of new developments in the floodplain % of planning permissions (minor development) approved contrary to Environment Agency sustained objections on flood risk % of planning permissions (major development) approved contrary to Environment Agency sustained objections on flood risk Area of greenfield land and area of land liable to flooding allocated for development (NPA) No./ % of planning permissions granted incorporating Sustainable Urban Drainage Systems (NPA) Percentage of housing stock meeting or exceeding level 3 of the code for sustainable homes

		Take up of local authority insulation grants No. of businesses/organisations in Green Dragon (Arena Network) No. of buildings designed to be resilient to a changing climate Proportion of priority habitats that are isolated from other appropriate habitats
ISSUE Targets for Greenhouse gas emissions are not being met.		
TREND Continued or increasing contributions to greenhouse gases and climate change; continued or increased reliance on non-renewable energy resources leading to depleted resources. The whole character of the park could change, including traditional farming, with loss of upland flora.		
SEA/SA OBJECTIVES	**QUESTIONS: will the proposals in the plan…?**	**INDICATORS (Source of data)**
2. Mitigate effects on climate change by reducing greenhouse gas emissions in both existing and new development.	…reduce greenhouse gas emissions? …improve production and use of renewable energies? …promote sequestration of carbon?[32] …maintain existing carbon stores (e.g., organic soils and broad-leaved forests)? …affect habitats, resulting in methane release? …encourage use of locally sourced products?	Park's carbon footprint (NPA, CCW, EAW) Electric, gas, coal, and oil use (utilities, NPA) Key Environment Statistics for Wales re greenhouse gases (WAG, DEFRA) No. of planning permissions granted for renewable energy production (NPA) Number and capacity of renewable energy schemes Percentage of electricity produced/ used in Brecon generated from renewable sources Soil carbon release from land use (NPA, CCW) Number of new developments built to achieve carbon neutrality Homes applying for planning permissions for micro-renewables (BBNPA) Area of carbon sequestration habitats (peat and organic soils)

[32] Consideration of this approach is required as it is far from straightforward.

		Percentage of housing stock meeting or exceeding level 3 of the code for sustainable homes Take up of local authority insulation grants Number of farmers markets

TOPIC: AIR, WATER AND SOIL		
ISSUE Main outstanding issue is acid rain (nitrate deposition) originating outside the park. Potential issue with ozone levels.		
TREND Negative effects on health of humans, wildlife and habitats, water and soil quality, and damage to the historic and built environment.		
SEA/SA OBJECTIVES	**QUESTIONS: will the proposals in the plan…?**	**INDICATORS (Source of data)**
3. To maintain or improve air quality.	…maintain or improve air quality? …minimize emissions from residential and commercial sources? …reduce emissions from transportation sources?	Local authority air quality monitoring indicators (1,3-butadiene, benzene, carbon monoxide, lead, NO_2, PM_{10}, SO_2) Ground level ozone (APIS) Ammonia concentrations Area of sensitive habitats exceeding critical loads for acidification and eutrophication measures as (i) acidity and (ii) nutrient nitrogen
ISSUE The causes of some waters being classified as less than 'very good' in terms of biological and chemical quality needs to be addressed. A large majority of the National Park has been classified as being either a primary (Major) or secondary (Minor) aquifer. Issues with groundwater contamination from old mineworks. Need to improve the water quality at the lower part of Monmouthshire and Brecon Canal.		
TREND Negative effect on health of humans, wildlife, habitats, and aquatic ecosystems; tourism and fishing devalued.		
SEA/SA OBJECTIVES	**QUESTIONS: will the proposals in the plan…?**	**INDICATORS (Source of data)**
4. Maintain or improve water quality,	…maintain or improve water quality, including	Chemical and biological water quality measures (EAW)

and minimise the adverse effects of land use on water quality.	groundwater quality?	River water phosphate and nitrate levels (EAW) River Quality Objectives (EAW) Compliance with objectives under the Water Framework Directive Number of substantiated water pollution incidents
ISSUE Water quantity: Limitations of water.		
TREND Climate change will impact the distribution and abundance of water through time and space. This may result in excess at times and severe limitations at other times of the year. In-migration to the area will strain existing resources. Even without the effects of climate change, continued abstraction at existing rates may have adverse effects on wildlife, aquatic systems, angling, tourism, etc.		
SEA/SA OBJECTIVES	**QUESTIONS: will the proposals in the plan…?**	**INDICATORS (Source of data)**
5. Promote sustainable use of water resources and minimise adverse effects on water quantity.	…restore and maintain water abstraction, run-off and recharge rates within the Park's carrying capacity (including future capacity)? …promote the sustainable use of water?	Water use by sector (Welsh Water, EAW) Hydrologic information for streams, rivers, and catchments (EAW) CAMs/abstractions (EAW) Incidences of low flows/droughts and the onset of low flow related abstraction licence conditions (EAW) Percentage of properties with water meters Number /Percentage of water resource zones meeting target headroom requirements No. of developments incorporating water conservation measures, such as grey water systems Percentage of housing stock meeting or exceeding level 3 of the code for sustainable homes
ISSUE		

Soil erosion and geodiversity: Risk of soil erosion and reduction from grazing animals. Walkers and other recreational activities. NP contains areas of peat and high carbon soils.		
TREND Reduction in soil quantity and quality; reduction in viability of farming; erosion, affecting water quality and biodiversity. Reduction in carbon stores.		
SEA/SA OBJECTIVES	**QUESTIONS: will the proposals in the plan…?**	**INDICATORS (Source of data)**
6. To protect and enhance soil quality (including non-chemical soil functions and processes such as permeability) and quantity, especially of carbon rich soils.	…reduce the loss or impoverishment of soils? …reduce compaction and sealing of soils?	No. of major developments with a soil management plan/strategy Percent of uplands in favourable condition (CCW, NPA) Annual crop production per unit area (Farmers' Unions, LAs, NPA) Pesticide concentrations and nutrient loads in water bodies (EAW) No. of grazing animals Percentage of developments on brownfield sites Damage caused by unauthorised motor vehicle No. of brownfield sites remediated through development
ISSUE Loss or impairment of geodiversity. 51% of geological SSSIs in the park are in an unfavourable condition.		
TREND Loss or impairment of the Park's geological and geomorphological features as a result of erosion, recreation pressures, development or mineral extraction.		
SEA/SA OBJECTIVES	**QUESTIONS: will the proposals in the plan…?**	**INDICATORS (Source of data)**
7. Conserve geodiversity and promote the understanding and enjoyment of geodiversity.	…conserve geological and geomorphological features? …promote the enjoyment and understanding of geodiversity?	No. and condition of sites of geological importance in favourable condition (BGS, NPA, Geopark) No. of visitors attending Geopark functions (BGS, NPA, Geopark) No. of visitors exploring caves and other karst formations (BGS, NPA, Geopark)

		Number of geological sites being used for their intended purpose (e.g. education, geo-tourism) Number of jobs created through geo-tourism

TOPIC: BIODIVERSITY
ISSUE Threats to biodiversity from habitat loss and the anticipated effects of climate and agricultural change. 55% of SSSI biological "features of importance" in the NP are in an unfavourable condition. Of those owned/managed by the NPA 77% are in an unfavourable condition. Increase in the risk to bat populations. Many of the LBAP habitats are currently declining. Increasing abundance of aquatic invasive plant species, particularly Japanese knotweed and Himalayan balsam. Increase in the risk of coniferous plantations having a visual impact and tend to suppress flora and fauna. Increase in the risk of wetland drainage and intensive recreational used having an impact on flora and fauna. Reduce pressure on the Park's biodiversity due to management concerns about the number of economic and social activities. Changing lifestyles causing modifications to biodiversity.
TREND Decline or loss of target species and their habitats. Increased prevalence of non-native and invasive species. Loss of species as a result of building redevelopments. Decline or loss of habitats. Fragmentation of habitats, loss of connectivity between habitats, loss or lack of buffer zones around protected areas SACs adversely affected. As an example, abandonment of upland and marginal land farming could mean loss of upland flora, fragmentation of biodiversity. Intensification of farming could adversely affect wildlife habitats. Ecosystems fail to provide self-perpetuating functions and therefore do not provide ecosystem services (e.g., crop production, flood abatement, etc.) for humans).
ISSUE The majority of SAC features in an unfavourable condition. Biodiversity and habitats will be affected by a changing climate. This raises both biodiversity management and communications issues.

TREND Uncertain		
SEA/SA OBJECTIVES	**QUESTIONS: will the proposals in the plan…?**	**INDICATORS (Source of data)**
8. To value, conserve and enhance the diversity of species, habitats and ecosystems.	…conserve and enhance the diversity of species? …prevent the loss of LBAP target species and their habitats where possible? …reduce the richness and abundance of non-native species? …conserve and enhance the diversity of habitats? …create and/or improve condition of LBAP target habitats? …minimize disturbance to LBAP target habitats? …have no adverse effect on SACs? …conserve and enhance the integrity of ecosystems? …prevent fragmentation of habitats? …ensure development does not create barriers to species movement? …promote ecological connectivity and habitat networks?	Status and trends for Biodiversity Action Plan target species (NPA, CCW) Richness and abundance of non-native species (EAW) No. of agri-environmental schemes including provision for wildlife (WAG, CCW) Status and trends for Biodiversity Action Plan target habitats (NPA, CCW) No. of proposals adversely affecting SACs (CCW) No. of sites in favourable condition (CCW) Local Biodiversity Action Plan indicators Connectivity and fragmentation of habitats (NPA, CCW) Status and trends of ecological functions (e.g., peat formation, biomass production, water retention) (NPA, CCW, partners) No. or % of developments with biodiversity gain (NPA, CCW) No. of wetland habitats being restored (CCW, NPA)

TOPIC: CULTURAL HERITAGE		
ISSUE Lack of management of historic landscapes, scheduled ancient monuments and other archaeological features. Changes to the NP resulting in changes to agricultural practices. For example fewer people are taking up grazing rights.		
TREND Cultural impoverishment, negative impact on tourism and economy. Landscapes: loss of sense of place and distinctiveness. Features: destruction or deterioration of irreplaceable resources; loss of local character.		
SEA/SA OBJECTIVES	**QUESTIONS: will the proposals in the**	**INDICATORS (Source of data)**

	plan…?	
9. To understand, value, protect and manage historic landscapes, scheduled ancient monuments and other archaeological features appropriately.	…provide for the protection and management of historic landscapes, including the canal, scheduled ancient monuments and other archaeological features?	No. of Tir Gofal schemes including provision for management of historic landscapes and features (WAG) % of historic landscape with up to date character appraisal No. of Scheduled Ancient monuments recorded as being in satisfactory/ good condition No. of developments with the potential to affect historic landscapes using the ASIDHOL methodology No. of developments using Landmap No. of planning applications which have conditions attached to ensure the protection archaeological resources

TOPIC: LANDSCAPE AND THE BUILT ENVIRONMENT		
ISSUE Impoverishment of the quality and character of the built environment		
TREND Failure to maintain Listed Buildings. Lack of conservation of most Conservation Areas resulting in a loss of sense of place.		
SEA/SA OBJECTIVES	**QUESTIONS: will the proposals in the plan…?**	**INDICATORS (Source of data)**
10. Maintain and enhance the quality of the built environment.	…reduce the number of Listed Buildings at risk? …conserve the character of buildings and the street scene in Conservation Areas, as well as surroundings? …promote high quality design based on local character and distinctiveness? …promote a sense of place?	No. of Listed Buildings at risk (NPA) No. of Conservation Areas with town schemes or other conservation projects (NPA) Amount of green space available to local communities (NPA) % of Conservation Areas with up-to-date character appraisal No. of Conservation Areas adversely affected by plan proposals No. of building in Conservation Areas affected by detrimental changes
ISSUE		

Adverse effects of changes in agricultural and rural development on the Park's landscape character and features. Loss of tranquillity within the Park. Noise/tranquillity issues in relation to MoD activities.		
TREND Abandonment or reduction of hill farming would change the character of the Park's uplands, woods and grasslands. Woodlands becoming derelict; regeneration prevented by grazing. Hedgerows and walls becoming derelict if not maintained. Visual impact from wind farms and large developments.		
SEA/SA OBJECTIVES	**QUESTIONS: will the proposals in the plan…?**	**INDICATORS (Source of data)**
11. Maintain and enhance the Park's landscape character and its associated features.	…reduce or mitigate the adverse effects of agricultural change on the landscape? …ensure development is sited and designed with the landscape character in mind? …improve woodland management? …protect and enhance hedgerows and drystone walls? …reduce the visual impact of large developments that can be seen from the Park? …improve tranquillity or reduce light pollution?	Area of land given over to development each year Length of urbanised roads in rural areas No. of grazing agreements on common land (NPA) Agri-environment scheme uptake (WAG, NPA) % change in farming businesses (LAs, NPA, CCW, WAG) Headage per acre (WAG, CCW, Farmers' Unions, Las) Area of woodland protected under Tir Gofal (WAG) No. of woodland management schemes endorsed by Forestry Commission (FC) No. and condition of field trees and veteran tree Length of hedgerows and drystone walls protected under Tir Gofal (WAG) Length of walls, banks and hedgerows removed and/or restored No. of wind farms and large developments that are visible from inside the Park boundary (NPA) No. of developments using Landmap, SLA or characterisation studies Participation in Catchment Sensitive Farming initiatives (EAW) Level of light pollution

		Tranquillity Maps (CCW)

TOPIC: MATERIAL ASSETS		
ISSUE Unsustainable waste management. Unsustainable use of mineral resources. Lack of sewerage infrastructure.		
TREND Depletion of resources world-wide; loss of land to landfill; fines from EU. Generally destructive landscape change and loss of mineral resources.		
SEA/SA OBJECTIVES	**QUESTIONS: will the proposals in the plan…?**	**INDICATORS (Source of data)**
12. Make sustainable use of natural resources and build and maintain environmentally friendly, high quality, services and infrastructure.	…contribute to the reduction, reuse and recycling of waste? …contribute to appropriate waste treatment and disposal? …promote sustainable waste management? Reduce waste production and promote reuse and recycling. …minimise the use of finite resources and promote higher resource efficiency and the use of secondary and recycled materials? …promote the delivery of robust ICT infrastructure? …ensure adequate sewerage capacity is provided for new development?	% of waste disposed of in landfills (EAW, LAs, NPA) Destination for recycled materials (EAW, CCW, LAs, NPA) % of waste recycled and composted (LAs) Area covered by planning permission for aggregates working (NPA) Distance travelled to and from source materials (NPA) Proportion of the construction and demolition waste that is re-used and recycled Proportion of aggregates used from secondary and or recycled sources No. of fly tipping incidents (LAs, EAW) Broadband coverage and speed Indicator on sewerage capacity needs to be identified for the next stage of the SA/SEA.
ISSUE Increased reliance of the private car. Lack of transport infrastructure and services.		
TREND		

Continued or increasing contributions to greenhouse gases and climate change; continued or increased reliance on non-renewable energy resources leading to depleted resources.		
SEA/SA OBJECTIVES	**QUESTIONS: will the proposals in the plan…?**	**INDICATORS (Source of data)**
13. Increase sustainable transport opportunities.	…promote sustainable modes of transport? …reduce the requirement for use of the private car? …promote a sustainable settlement strategy and appropriate location of services and facilities? …improve the integration of non car transport modes and services? …promote the use of community transport? …improve accessibility to services, particularly for disadvantaged sections of society? …improve or extend the public rights of way network?	Distances travelled per person per year by mode of transport (NPA, LAs, TAs) Length and condition of public rights of way Public transport routes in the Park (NPA) Cycle routes in the Park

TOPIC: POPULATION AND HUMAN HEALTH
ISSUE
Threats to the Park's communities from agricultural changes and the lack of affordable housing.
Overall increase in population is expected via in-migration.
Increase in the cost of housing in an area with already a high ratio of house price to income.
A lack of land available for housing development within Brecon Town.
Whilst the population of Brecon is projected to increase, the demand for housing is expected to increase at a faster rate. Factors contributing to this include the increase in buy-to-let investments, rising second home ownership and a reduction in the average number of people in each household.
An identified shortfall in the level of affordable housing stock, primarily a result of a rising cost of land and an already limited number of available plots.
Increase in the loss of cultural traditions.
Poor access to services in rural areas.
TREND
Loss of social cohesion; diminishing feelings of belonging and responsibility for community and environment.
Loss of young people and age range imbalance; internal migration creating high house prices.
Loss of traditional skills; loss of local character and distinctiveness.
Welsh language does not flourish.

SEA/SA OBJECTIVES	QUESTIONS: will the proposals in the plan…?	INDICATORS (Source of data)
14. Maintain distinctive cultural identity and ensure the needs of the changing demographics are reflected.	…provide sufficient housing for the needs of the local communities? …provide for and access to community services? …encourage healthy lifestyles? …ensure the population trends are considered in decision making processes, especially age. …promote the retention of younger people. …promote the design of settlements that improve social fabric by removing barriers and creating opportunities for positive interactions. …improve safety and security for people and property. …promote community interactions that will improve social cohesion. …promote inclusion of disadvantaged and minority groups into society. …ensure the quality of the built environment …reduce the burden of ill-health in the population. …encourage walking or cycling as an alternative means of transportation. …promote thriving safe and cohesive communities within and around the Park. …promote and provide services to maintain healthy communities …support the area's cultural traditions? …support the Welsh language? …encourage use of local products?	Proportion of identified need for affordable housing that is met (Housing Authorities) % of second homes in the National Park % of young people (i) remaining or (ii) returning to the National park to live and work Welsh Indices of Multiple Deprivation Crime statistics % of people who feel safe in the local area from the Living in Wales survey Property tenures No. of local cultural events (NPA) No. of attendees at local cultural events (NPA, LAs) Increased % of Park's population having some knowledge of Welsh by 2011 (Census data) Sales of local products (LAs, NPA)
ISSUE Limited access for many social groups to the Park and to its opportunities and facilities. There could be significant seasonal population fluctuations, impacting on the communities. Compared to the rest of Wales health indicators for the NP (based of figures for Powys and Monmouthshire) are all above the national average (positive),		

with the exception of "Death from Road Traffic Accidents" which is significantly below (negative).		
TREND Certain groups excluded from Park (e.g. disabled, non-drivers, elderly, young people, minority groups).		
SEA/SA OBJECTIVES	**QUESTIONS: will the proposals in the plan…?**	**INDICATORS (Source of data)**
15. Promote and improve accessibility to the Park and to its opportunities and facilities.	…improve access to the Park and to its opportunities and facilities for all? …create new access opportunities where appropriate? …ensure that the Park is easily accessible and promoted through eco-tourism? …ensure that the tourism sector and attractions provide access by a choice of travel other than private means? …improve the quantity and quality of publicly accessible open space? …provide opportunities for people to come into contact with and appreciate the diversity of species, habitats, and ecosystems in the Park. …remove barriers and create opportunities for people to live healthier lifestyles. …reduce inequality and provide access to all facilities and services. …encourage walking or cycling as an alternative means of transportation. …reduce the causes of accidents. …encourage integration of health issues into planning activities.	No. of groups brought to the Park by Community Champions (NPA) Amount of access land available (NPA) Length and condition of public rights of way Length and condition of cycle network No. of tourism nights per year for (i) leisure and (ii) business purposes Visitor surveys to measure visitor satisfaction Proportion of visitors using public transport to visit the Park. No. of visitors from minority groups. Prevalence of obesity in 2-10 year olds Total number of KSI (Killed or Seriously Injured) casualties per year % of people whose main mode of travel to work is (i) walking or (ii) cycling % of pupils whose main mode of travel to school is walking Access to GP or primary care professional Access for disabled people Access in rural areas Accessibility to health care facilities No. of noise related complaints to the local authority Welsh Indices of Multiple Deprivation Use of safe routes to schools % of Rights of Way Network that is 'easy to use'

		No. of trips by cycle or foot within the Park No. of walking/cycling schemes initiated

TOPIC: EDUCATION AND SKILLS		
ISSUE No identified issues.		
TREND No identified trend.		
SEA/SA OBJECTIVES	**QUESTIONS: will the proposals in the plan…?**	**INDICATORS (Source of data)**
16. Increase opportunities to build an education and skills base.	…promote providing the best start in life for children? …promote appropriate education provision for supporting 16-19 year olds? …promote enrolment in further and higher education institutions? …increase levels of literacy (in English and Welsh) and numeracy? …promote lifelong learning? …promote the retention of skills in the Park? …provide accessible educational and training facilities which meet the future needs of the area? …promote education in rural skills?	% of people aged 9-21 with at least an NVQ level 2 qualifications or equivalent % of adults of working age with at least a National Qualification Framework level 4 qualification % of adults engaged in adult education activities Welsh Indices of Multiple Deprivation No. of people undertaking courses in rural and countryside skills

TOPIC: ACHIEVING A SUSTAINABLE ECONOMY
ISSUE Declining local economy. Unsustainable or declining tourism industry in the Park. Employment figures are increasingly concentrated in limited industries. The agricultural industry employment figures are decreasing, which reduces the availability of skills and knowledge for land management of conservation.

TREND Loss of economic base; loss of skills. Loss of local agriculture and subsequently the landscape character. Increased food and trade miles; increased car use and commuting. Fewer visitors – less income – economic decline. Increase in traffic and parking problems. Environment would stay more as it is.		
SEA/SA OBJECTIVES	**QUESTIONS: will the proposals in the plan…?**	**INDICATORS (Source of data)**
17. Promote a thriving, locally-based economy.	…promote a sustainable agricultural economy in the Park? …support a thriving, locally-based economy in the Park? ...support a flourishing and sustainable tourism industry in the Park? …encourage use of local products and services? …help provide good quality employment opportunities for all sections of the population? …promote sustainable businesses in the Park? …promote home working?	No. of farms and farmers (WAG) No. of farmers markets and local farm shops (NPA) Income and business generated locally (NPA) No. of entrepreneurships in the park (NPA) Broadband coverage and speed % occupancy of beds in holiday accommodation throughout the year (NPA/STEAM) Tourist spending (NPA/STEAM)
BBNP(A)=Brecon Beacons National Park (Authority); BGS=British Geological Survey; CCW=Countryside Council for Wales; CROWA=Countryside and Rights of Way Act; EAW=Environment Agency (Wales); EU=European Union; FCW=Forestry Commission Wales; HRA=Habitats Regulations Assessment; IUCN=International Union for the Conservation of Nature; LA=Local Authority; LBAP=Local Biodiversity Action Plan; LDP=Local Development Plan; NPA=National Park Authority; NPMP=National Park Management Plan; SAC=Special Area for Conservation; SEA=Strategic Environmental Assessment; SPA=Special Protection Area; SSSI=Site of Special Scientific Interest; STEAM= Scarborough Tourism Economic Activity Model; TA=Transportation Authority; UN=United Nations; WAG=Welsh Assembly Government; WSP=Wales Spatial Plan.		

5.3 Summary of SA/SEA Objectives

For ease of understanding and clarification the SA/SEA objectives in the framework (Table 5-2) are summarised below in Table 5-3.

Table 5-3: Summary of SA/SEA Objectives

SA/SEA Topic	SA/SEA Objective
Climatic Factors	Ensure that adequate measures are in place to adapt to the impacts of climate change.
	Mitigate effects on climate change by reducing greenhouse gas emissions in both existing and new development.
Natural Resources: Air, Water and Soil	To maintain or improve air quality.
	Maintain or improve water quality, and minimise the adverse effects of land use on water quality.
	Promote sustainable use of water resources and minimise adverse effects on water quantity.
	To protect and enhance soil quality (including non-chemical soil functions and processes such as permeability) and quantity, especially of carbon rich soils.
	Conserve geodiversity and promote the understanding and enjoyment of geodiversity.
Biodiversity	To value, conserve and enhance the diversity of species, habitats and ecosystems.
Cultural Heritage	To understand, value, protect and manage historic landscapes, scheduled ancient monuments and other archaeological features appropriately.
Landscape and the Built Environment	Maintain and enhance the quality of the built environment.
	Maintain and enhance the Park's landscape character and its associated features.
Material Assets	Make sustainable use of natural resources and build and maintain environmentally friendly, high quality, services and infrastructure.
	Increase sustainable transport opportunities.
Population and Human Health	Maintain distinctive cultural identity and ensure the needs of the changing demographics are reflected.
	Promote and improve accessibility to the Park and to its opportunities and facilities.
Education and Skills	Increase opportunities to build an education and skills base.
Achieving and Sustainable Economy	Promote a thriving, locally-based economy.

5.4 Compatibility of SA/SEA Objectives

A compatibility assessment of the SA/SEA objectives has been undertaken in order to identify whether there is incompatibility or tensions between certain objectives (Table 5-5). Where incompatibilities were identified it was necessary to take these in to account when undertaking the assessment process and considering appropriate mitigation measures or alternative approaches in the NPMP.

Table 5-4: Key to Compatibility Assessment

C	Objectives are compatible
?	Uncertainty over compatibility
N	Objectives not compatible
-	No relationship between objectives

Several uncertainties were identified and these are discussed below:

- The objectives to '*maintain and enhance the quality of the built environment*' and '*to maintain and enhance the Park's landscape character*' have an uncertain compatibility with the SA objective *'reduce greenhouse gas emissions*'. Uncertainty remains as renewable energy technologies such as wind turbines could have a negative effect on the built environment or landscape depending on their type, scale and location.
- There remains uncertainty between the SA objectives to '*maintain cultural diversity and allow for the changing demographic*' and '*promote a thriving, locally based economy*' on the following SA objectives: *reduce greenhouse gas emissions, maintain or improve water quality, sustainable use of water resources, protect and enhance soil quality and quantity, conserve geodiversity, value, conserve and enhance biodiversity, appropriate management of historic landscapes, maintain and enhance the Park's landscape character and make sustainable use of natural resources'*. These objectives could be incompatible as they allow for both housing and employment growth. However, the assessment is considered to be uncertain as any effect will depend on the type, scale and location of future housing and employment growth.
- There is an uncertain compatibility between the objectives '*promote and improve accessibility to the Park and facilities'* and to '*value, conserve and enhance biodiversity', 'appropriate management of historic landscapes' and 'maintain and enhance the Park's landscape character'.* This is because improving accessibility to the Park could increase visitor numbers thereby adversely effecting these environmental assets.

Table 5-5: Compatibility of SA/SEA Objectives

Abridged Titles.	1. Climate change adaptation measures	2. Reduce GHG emissions	3. Maintain or improve air quality.	4. Maintain or improve water quality.	5. Sustainable use of water resources.	6. Protect and enhance soil quality and quantity.	7. Conserve geodiversity.	8. Value, conserve & enhance biodiversity.	9. Appropriate management of historic landscapes.	10. Maintain and enhance the quality of the built environment.	11. Maintain and enhance the Park's landscape character.	12. Make sustainable use of natural resources.	13. Increase sustainable transport opportunities.	14. Maintain cultural diversity and allow for the changing demographic.	15. Promote and improve accessibility to the Park + facilities.	16. Increase opportunities to build an education and skills base.	17. Promote a thriving, locally based economy.
1. Climate change adaptation measures.																	
2. Reduce GHG emissions.	C																
3. Maintain or improve air quality.	C	C															
4. Maintain or improve water quality.	C	-	-														
5. Sustainable use of water resources.	C	-	-	C													
6. Protect and enhance soil quality and quantity.	-	-	-	C	-												
7. Conserve geodiversity.	C	C	-	-	-	C											
8. Value, conserve & enhance biodiversity.	C	C	C	C	C	C	C										
9. Appropriate Management of historical landscapes.	-	-	-	-	-	-	-	C									
10. Maintain and enhance the quality of the built environment.	C	?	-	-	C	-	-	-	C								
11. Maintain and enhance the Park's landscape character.	-	?	-	-	-	-	-	-	-	C							
12. Make sustainable use of natural resources.	C	C	C	C	C	C	C	C	C	C	C						
13. Increase sustainable transport opportunities.	C	C	C	-	-	-	-	-	-	-	-	C					
14. Maintain cultural diversity and allow for the changing demographic.	C	?	?	?	?	?	?	?	?	C	?	?	C				
15. Promote and improve accessibility to the Park + facilities.	-	-	-	-	-	-	-	?	?	-	?	C	C	C			
16. Increase opportunities to build an education and skills base.	-	-	-	-	-	-	-	-	-	-	-	C	-	C	C		
17. Promote a thriving, locally based economy.	-	?	?	?	?	?	?	?	?	-	?	?	-	C	-	C	

5.4.1 Inter-relationships between SA/SEA objectives

During the SA/SEA assessment the SA/SEA objectives should not be considered in isolation as many inter-relationships exist that need to be taken into account. Some of these relationships are clear cut and easy to understand, for example reduced greenhouse gas emissions and improved air quality which would both result from transport modal shift to sustainable travel modes. Others however can be less obvious, but are equally important and need to be understood when assessing the NPMP. For example there are inter-relationships between climate change adaptation measures and improvement in human health, from improved safety associated with reducing the risk of properties flooding, through to reduced levels of stress and improved well-being resulting from improvements to energy efficiencies of homes.

Close inter-relationships exist between environmental topics such as air quality, water quality, soil and biodiversity, with improvements or degradation to one often resulting in a similar effect on the other related media/topics. For example increased air pollution can have adverse effects on soil, water quality, and biodiversity through acidification. These effects can then cause issues relating to landscape degradation.

Further inter-relationships between the SA/SEA objectives are identified within Section 7.3.

6 Alternatives Assessment

The Brecon Beacons National Park Authority have conducted a series of public engagement events designed to explore the vision for the future of the National Park as well as its special qualities. Throughout this process many alternative views have been considered. The options presented to the NPA have been evaluated carefully by the authority with respect to:

- The National Park's statutory purposes and duty;
- Welsh Assembly Government's vision for the National Parks of Wales;
- Previous vision statements, special qualities, aims and strategic objectives; and
- And other international, national, and local legislation, policies and plans (outlined in the Scoping Report and appended herewith).

While the possibility exists for a significant number of potential options or alternatives, these are effectively limited by the aforementioned criteria which act like filters in choosing plausible alternatives from the options presented during the consultation process. The alternatives for the National Park Management Plan, then, are determined through a combination of stakeholder input and coarse evaluation based on pre-existing policies. The alternatives are very coarse at the vision stage but are refined through additional consultation events designed to help determine the aims, strategic objectives and actions.

During the preparation of the draft NPMP, an interim assessment of the proposed vision, aims, strategic objectives and actions was undertaken. BBNPA used this assessment during the development of their proposed MP. This was then followed by a second round of assessment of the draft NPMP. The final assessment will be used to help the NPA finalise their MP and prioritise the Plan's actions.

7 Assessment of Preferred Strategy

7.1 Methodology of the Assessment

The assessment of the draft NPMP explored the likely effects of the vision, aims, strategic objectives and actions on the 17 SA/SEA objectives developed as part of the Scoping Report and updated following consultation on that report, using the scoring criteria outlined below (Figure 7-1).

Significance Assessment	Description
++	Plan element would have a major positive effect on sustainability in its current form as it would resolve an existing issue or maximise opportunities. **SIGNIFICANT**
+	Plan element would have a **MINOR** positive effect on sustainability.
?	Effect of option on sustainability is uncertain.
0	Plan element would have a neutral effect on sustainability.
-	Plan element would have a **MINOR** adverse effect on sustainability.
--	Plan element would have a major adverse effect on sustainability as it would substantially exacerbate existing problems. Consider exclusion of option. **SIGNIFICANT**

Figure 7-1: Assessment Criteria

The effects have been forecast in terms of their:

- Permanence (permanent or temporary);
- Scale (local (within the NP), regional (affecting local neighbouring authorities), national/international (affecting Wales/UK or a wider global impact)); and
- Timescale (in the short term (1-5 years), medium term (5-10 years) or long term (10+ years)).

The assessment has also identified cumulative/synergistic effects, cross-boundary effects and interrelationships between the SA objectives.

Where uncertainties were identified, possible measures to offset these effects were considered, with recommendations provided. The majority of the recommendations have been as part of the ongoing plan making process and have been adopted through continuous improvement of the policies.

7.2 Summary of the Assessment

The inherently protectionist nature of the NPMP has meant that no adverse effects or incompatibilities have been identified between the draft NPMP elements and the SA/SEA objectives, although there are potential for adverse effects within the areas of uncertainty. This uncertainty will be dependent on how the relevant objectives and actions are taken forward in terms of their scale and spatial coverage. Figure 7-2 provides an overall summary of the assessment of the draft NPMP against the SA/SEA objectives. The figure shows that overall significant positive effects have been forecast for five of the SA objectives: geodiversity; biodiversity; cultural heritage, landscape and population. It is important to note that significant positive effects have also been identified for individual elements under each of the other SA objectives but have not

feed through into this overall summary score. Full details of these significant effects and the other assessments are contained in Section 7.3 and Appendix D.

	SA/SEA Objectives																
	Climate Adaptation	Climate Mitigation	Air Quality	Water Quality	Water Quantity	Soil	Geodiversity	Biodiversity	Cultural Heritage	Built Environment	Landscape	Material Assets	Transport	Population	Accessibility	Education/Skills	Economy
Overall Assessment	+	+	+	+	+	+	++	++	++	+	++	+	+	++	+	+	+

Figure 7-2: Summary of Overall Assessment by SA objective

As shown above, the assessment of the draft Management Plan identified overall significant positive effects for five of the SA/SEA objectives. The NPMP contains many aims, strategic objectives and actions aimed at protecting and enhancing the Park's special qualities, including its biodiversity, geodiversity, cultural heritage and landscape which will have direct significant positive effects on these SA objectives.

Many of the elements within the NPMP will have long-term positive effects on the SA objectives and should help to resolve some of the issues faced in the Park, such as the unfavourable condition of certain habitats, pressures on landscapes from agricultural change, loss of tranquillity, effects of climate change, and loss of land management skills. The development of new tourism facilities may have temporary effects on the environment during construction but long term the effects of new facilities will likely be positive, through increased accessibility to the Park.

The elements within the draft NPMP will specifically help the Park to achieve its two purposes of conserving and enhancing the natural beauty, wildlife and cultural heritage of the National Park and promoting opportunities for the understanding and enjoyments of the Park's special qualities by the public.

It is important to highlight that although the NPMP encourages sustainable tourism within the Park, increasing number of visitors within the Park may have adverse effects on the Park's biodiversity, geodiversity, cultural heritage and landscape. These effects will be dependent on the location and type of tourism activity. Increasing tourism within the Park may also lead to increased water and energy consumption in the park. In particular, despite the measures to encourage the use of sustainable modes of transport, encouraging increased tourism within the Park may lead to increased greenhouse gas emissions from visitor transport.

In the longer term, the Park's special qualities are at risk from the changing climate. The NPMP contains aims, objectives, and actions which should help the Park and its communities to adapt to the predicted changes and impacts. However it is important to note that the Park's uplands which are already under threat from changing agricultural practices and tourism may become increasing threatened. As uplands provide a valuable eco-system service, for example providing 70% of the UK's water supply, it is essential that the uplands within the Park are protected and enhanced.

7.3 Assessment by SA Objective

7.3.1 Ensure that adequate measures are in place to adapt to the impacts of climate change

The NPMP is forecast to have direct positive effects against this SA objective by ensuring that measures are put in place to adapt to climate change over the plan period.

The vision for the Park to be resilient, open and responsive to change, particularly climate change, is compatible with the SA objective on climate change adaptation. A number of the NPMP's aims and objectives should have **significant** positive localised effects on climate change adaptation, such as:

- The Park's aim that people will better understand the implications of climate change on their daily lives and how they can adapt to its effects;
- The Park's aim that new development and regeneration projects within the Park will provide exemplars of best practice for Wales with regard to climate change mitigation and adaptation strategies; and
- The objective to prepare the National Park's communities for climate change and fossil fuel depletion by building resilience to ensure minimised economic and social impact.

Encouraging the Park's biodiversity to flourish and adapt to climate change through improved habitat connectivity and exemplary management of designated nature conservation sites should help to reduce vulnerability of habitats and species to the effects of climate change. Thereby this aim is forecast as having a **significant** positive effect on this SA objective. Restoring and enhancing habitat connectivity across the Park's uplands should allow species in these areas to adapt to climate change.

The NPMP contains an objective aimed at ensuring that water resources are used sustainably across the Park. The supporting text requires that flood risk is reduced through the siting of development outside the floodplain and encouraging sustainable drainage systems (SUDS). This objective should have positive effects on helping the Park to adapt to climate change. The NPMP also contains an objective to achieve sustainable conservation management of all existing wetlands, rivers and streams within the NP. This objective should not only help aquatic biodiversity adapt to climate but could also help to reduce flooding.

The two objectives aimed at increasing awareness of environmental sensitivity and sustainability issues and supporting eco-schools and eco-centres could have a positive effect on climate change adaptation by educating visitors of the issues.

Several of the actions, under the theme '*raising awareness and understanding of the Park*', are forecast as likely to have positive effect on climate change adaptation. These include:

- Using the Geopark's geological record to interpret climate change and encourage behavioural change;
- Encouraging local communities to engage with the issues of climate change; and
- Utilising the Green Valleys Initiative and other relevant partnerships to raise awareness of how to adapt to and mitigate the effects of climate change and fossil fuel depletion.

Under the theme '*building and maintaining sustainable communities, towns and villages*' 9 of the actions are forecast as likely to have a positive effect on this SA objective. Actions to support projects which follow the principles of sustainable development, to generate greater awareness and understanding of sustainability issues and climate change, to develop renewable energy schemes and to improve the energy efficiency of

new developments should help to ensure measures are in place to help the Park adapt to the effects of climate change. The actions to restrict development in areas at high risk of flooding and to implement water management systems should migrate development away from the floodplain and reduce the likelihood of increased risk of flooding from new development are forecast are likely to have **significant** positive effects.

Encouraging tourism operators and visitor facing public bodies to achieve accredited environmental status, an action under the theme '*sustainable economic development*', is likely to have a positive effect on this objective as these schemes are likely to ensure that these organisations consider issues relating to climate change adaptation, such as flood risk.

Under the theme '*conserving and enhancing biodiversity*', the action to encourage research into carbon and water management on the Park's uplands could provide knowledge which will help the Park to allow this species within this habitat to adapt to the effects of climate change.

Several of the actions, under the theme '*managing Park landscapes to maximise conservation and public benefits*', are forecast as likely to have positive effect on climate change adaptation. Restoring and enhancing habitat connectivity across the uplands, expanding native woodlands towards the higher slopes, restoring internationally recognised habitats and practising continuous forestry should help to provide the habitat corridors that will allow species to adapt to the changing climate. Another action, under this theme, forecast as likely to progress this objective is to develop a work plan and prioritise activities for each integrated landscape management area, including consideration of sustainable grazing and farming systems, historic environment, landscape components, carbon and energy and water-catchment planning.

Many of the NPMP's aims, objectives and actions are forecast as likely to have a neutral effect on climate change adaptation.

There is currently uncertainty over the effect of the NPMPs aim to experiment with novel approaches to sustainable development. This aim may progress this SA objective if these approaches help the Park to adapt to the effects of climate change. The effect is however uncertain as it is unclear what approaches may be taken and what (if any) the level of effect on climate change adaptation may be.

Cumulative/Synergistic Effects:
The accumulation of positive and **significant** positive effects indicates the NPMP may have a positive cumulative effect on climate change adaptation.

These positive effects for the NPMP should, in combination with the **significant** positive effects forecast for climate change adaptation for the LDP, have a positive effect on helping the Park to achieve this SA objective.

Overall Assessment for the Objective:

+

Cross-Boundary Effects:
Siting of development outside of floodplains could help to reduce the risk of flooding within the Park. This could also have positive cross boundary effects as allowing floodplains to flood could reduce flood risk problems downstream.

Interrelationships:
Measures to help the Park to adapt to the effects of climate change, such as improved habitat connectivity and exemplary management of designated nature conservation sites will have direct positive effects on biodiversity. In addition, measures to encourage sustainable use of water resources, reduce the likelihood of flooding and encouraging SUDS will have positive effects on water quality and quantity.

7.3.2 Mitigate effects on climate change by reducing greenhouse gas emissions in both existing and new development

Many of the NPMP's aims, objectives and actions are forecast as likely to have a neutral effect on climate change mitigation.

The vision for the Park's stakeholders to be proactive in mitigating the effects on climate change through local action is compatible with reducing greenhouse gas emissions from activities/developments in the Park. The vision also highlights renewable energy production as a way in which people can earn a living from the land. This element of the vision is also compatible with reducing greenhouse gas emissions by allowing for increasing the production and use of renewable energy and carbon sequestration activities.

A number of the aims, objectives and actions seek to reduce the Park's reliance on fossil fuels. For example, the NPMP contains energy objectives which aim to help to achieve targets for greater renewable energy production, to reduce energy use and to reduce direct and indirect production of greenhouse gases by the Parks communities. These objectives could have **significant** positive effects on this SA objective. Four actions, under the theme '*building sustainable communities, towns and villages',* have also been identified are likely to have significant positive effects, these include:

- Include policy within the LDP to ensure that all new development achieves at least a 30% carbon saving higher than the level required by part L of the (2006) building regulations;
- Include policy within the LDP which enables the incorporation of small to medium scale renewable energy schemes into new and existing development;
- Include policy within the LDP which requires new development to provide for at least 20% of its regulated energy requirements from Low or Zero Carbon energy sources; and
- Include policy within the LDP which requires all new development to achieve a minimum CSH level 4 / BREEAM very good.

The NPMP also contains objectives to assist the development of community energy initiatives, to develop capacity for a localised energy grid, and to integrate renewable energy into building and settlement design.

The NPMP contains objectives and actions on creating small scale hydro-electric energy schemes and encouraging sustainable transport. Combined these measures should help to reduce greenhouse gas emissions and therefore have a direct positive effect on this objective in the long term. Also, the NPMP's objectives to reduce greenhouse gas emissions locally could have positive effects at a national scale.

The Park's aim that people will better understand the implications of climate change on their daily lives and how they can mitigate and adapt to its effects should have a direct **significant** positive effect on this SA objective. The aim for new development and regeneration projects within the Park to provide exemplars of best practice for Wales, with regard to climate change mitigation and adaptation strategies, should also have **significant** positive effects on reducing greenhouse gas emissions from developments and/or activities.

The two objectives aimed increasing awareness of environmental sensitivity and sustainability issues and supporting eco-schools and eco-centres could have a positive effect on climate change mitigation by educating visitors of the issues and thereby helping to positively influence behaviour.

The NPMP contains objectives to achieve sustainable conservation management of all existing wetlands, rivers and streams within the NP and to improve woodland management. Protecting these habitats could help to stabilise carbon sinks within the Park. Several of the actions, under the theme '*conserving and enhancing biodiversity*',

are forecast as being likely to have positive effect on climate change mitigation through stabilising these sinks, including:

- Encouraging research into carbon and water management on the Park's uplands;
- Developing sustainable management of small woodlands to provide woodfuel whilst benefiting biodiversity; and
- Creating new habitats through green energy projects such as woodland expansion for wood fuel and wetland creation with hydroelectric schemes.

Other actions under this theme, including: developing habitat improvements and water management benefits through small-scale hydroelectric power generation, developing a best practice approach to ensuring compliance with protected species legislation within projects to provide wider environmental benefits (e.g. green energy) and linking biodiversity to water conservation, food production and small-scale hydroelectric power generation by way of the Green Valleys project should also progress this SA objective through increasing the amount of renewable being produced in the Park.

Under the theme '*raising awareness and understanding of the Park*', three of the themes are forecast as likely to have a positive effect on this objective. These are:

- Using the Geopark's geological record to interpret climate change and encourage behavioural change;
- Encouraging local communities to engage with the issues of climate change; and
- Utilising the Green Valleys Initiative and other relevant partnerships to raise awareness of how to adapt to and mitigate the effects of climate change and fossil fuel depletion.

Identifying and publishing information regarding public transport links to the Park, under the theme '*providing everyone with opportunities for outdoor access and recreation*' could encourage the use of public transport, thereby reducing greenhouse gas emissions. Other actions under the themes '*building and maintaining sustainable communities, towns and villages*' and '*sustainable economic development*', are also forecast as likely to reduce transport related greenhouse gas emissions, including:

- Encouraging market gardens and local markets;
- Promoting the use of local and organic food;
- Providing an affordable, accessible and effective sustainable transport network that meets the needs of residents and visitors;
- Promoting cycling as a means of everyday travel and developing safe cycle routes;
- Developing a self contained Sustainable Transport Website;
- Developing walks booklets linked to buses and trains;
- Developing and supporting by way of the Sustainable Development Fund sustainable food marketing and the promotion and consumption of local produce;
- Providing outreach programmes to local groups to increase awareness and use of local opportunities for recreation, reducing travel and associated carbon emissions; and
- Developing a hierarchical sustainable settlement strategy, whereby the majority of future development is located in settlements well served by easily accessible services, facilities and access to public transport.

Other NPMP actions under the theme '*building and maintaining sustainable communities, towns and villages*' are likely to have a positive effect on this objective, through supporting projects which follow the principles of sustainability, generating greater

awareness of sustainability issues, improving the energy efficiency of new developments and allowing for the development of small scale renewable energy schemes.

Encouraging tourism operators and visitor facing public bodies to achieve accredited environmental status, an action under the theme '*sustainable economic development*', is likely to have a positive effect on this objective as these schemes are likely to ensure that these organisations consider issues relating to climate change mitigation, such as reducing greenhouse gas emissions.

Several of the actions, under the theme '*managing Park landscapes to maximise conservation and public benefits*', are forecast as likely to have positive effect on climate change mitigation. Expanding native woodlands towards the higher slopes, restoring internationally recognised habitats, practising continuous forestry and creating new community woodlands should help to protect and enhance carbon sinks. Also, developing a work plan and prioritising activities for each integrated landscape management area, including consideration of sustainable grazing and farming systems, historic environment, landscape components, carbon and energy and water-catchment planning should help to progress this objective.

Although the NPMP aims to encourage sustainable tourism within the Park an increase in tourism numbers is likely to lead to increased greenhouse gas emissions, despite the measures being put in place to reduce energy use and encourage the use of more sustainable modes of transport.

There is currently uncertainty over the effect of the NPMPs aim to experiment with novel approaches to sustainable development. This aim may have a positive effect if these approaches help to mitigate the effects of climate change, for example encouraging visitors and residents to use alternative modes of transport. The effect is, however, uncertain as it is unclear what approaches may be taken and what (if any) the level of effect on greenhouse gas emissions may be.

The effect of the action related to establishing and developing the Visitor Transport Partnership is uncertain, as it unclear what role this organisation may take in encouraging a reduction in greenhouse gas emissions from transport. There also remains uncertainty with regard to the effect on carbon sinks of the action to create new upland open space via felling. The effect will be dependent on the extent of the proposed felling.

Cumulative/Synergistic Effects:
The accumulation of positive and **significant** positive effects indicates the NPMP may have a positive cumulative effect on climate change mitigation.

These positive effects for the NPMP should, in combination with the positive effects forecast for climate change mitigation in the LDP, should have a positive effect on helping the Park to achieve this SA objective.

Overall Assessment for the Objective:

+

Cross-Boundary Effects:
Whilst there will be no immediate cross-boundary effects, the effects of reducing greenhouse gas emissions within the Park should have positive effects further afield by reducing the effects on climate change at a global scale.

Interrelationships:
Climate change is likely to affect biodiversity through a change of habitats and change in species distribution. Certain species may not find changed climates to be favourable and northward migration may not be possible if corridors do not exist, leading to loss of species.

Changes in rainfall patterns and amounts can affect water availability for communities and use within the environment. Therefore climate change is of great significance to

water resources. Climate change could also influence the demand for water (e.g. during warmer periods) and the potential for flooding. Flooding may potentially affect historic and cultural assets.

Homes and businesses may be at risk from fluvial and surface run-off flooding.

Increasing the amount of energy produced by renewable technologies may affect landscapes due to the installation of wind turbines. In addition, hydro-electric installations may affect aquatic ecosystems.

Recommendations:
The NPMP should encourage the development of carbon neutral buildings and facilities.

7.3.3 To maintain or improve air quality

The NPMP vision does not directly aim to maintain or improve air quality within the Park. However, by protecting the wider environment the vision is considered to be compatible with the SA objective. For example, in order to conserve and enhance the Park's biodiversity, habitats and species will need to be protected from the adverse effects of poor air quality. Therefore air quality will need to be maintained or improved.

A direct **significant** positive local effect on this SA objective is forecast, as the NPMP contains an aim and an objective on maintaining and improving air quality.

The NP cannot control the effects of long range pollutants, including ground level ozone, that are produced outside of the Park and which could have adverse effects on air quality within the Park. The potential effect of these pollutants is deemed to be uncertain as it is unclear if these pollutants will be produced and if so whether they will affect the Park.

The NPMP contains objectives aimed at reducing greenhouse gas emissions produced by local communities. These objectives could also have a positive effect on local air quality as they could lead to reduced travel by private motor vehicles thereby reducing emissions to air. The NPMP contains an aim, several objectives and several actions specifically aimed at promoting sustainable transport initiatives across the Park which could also help to reduce reliance on private motor vehicles. This could have a direct positive effect on reducing emissions to air from transport.

Under the theme '*managing the Park's landscapes to maximise conservation and public benefits*', the action establishing the environmental pollution baseline within the Park should help the authorities to maintain existing air pollution levels as they will have detailed information on the current state. The action to seek to maintain air quality through the control of inappropriate development should also help to progress this SA objective.

Although the NPMP aims to encourage sustainable tourism within the Park an increase in tourism numbers is likely to lead to increased emissions to air, despite the measures being put in place to encourage more sustainable modes of transport.

Reducing pollution from agricultural activities is also likely to have positive effects on helping to maintain and improve air quality within the Park. Many of the NPMP's other aims, objectives and actions are forecast as likely to have a neutral effect on air quality.

Cumulative/Synergistic Effects:

Combined with the LDP, which aims to concentrate growth in key settlements thereby minimising emissions from transport, the NPMP should have positive cumulative effects on this SA objective.

Overall Assessment for the Objective:

+

Cross-Boundary Effects:
At a regional level, acid deposition can lead to the degradation of the terrestrial environment. Activities within the Park are unlikely to contribute significantly to this form of long range pollution.

Interrelationships:
A reduction in local air quality related to increased tourist vehicle numbers could have localised effects on vegetation growth. Maintaining and improving local air quality will therefore be essential to protecting the Park's biodiversity.

Global air pollutants, including carbon dioxide, methane, nitrous oxide and halocarbons contribute to the greenhouse effect, global warming and therefore climate change.

Air pollutants can cause damage to materials and thus have the potential to affect cultural heritage assets within the Park.

Soils, air and water are all inextricably linked. Thereby any positive or negative changes to the quality of one these resources will potentially have effects on the others.

Air pollutants have both known and suspected harmful effects on human health.

Recommendations:
Investigate the use of cleaner fuels in public transport and NPA fleet vehicles.

7.3.4 Maintain or improve water quality, and minimise the adverse effects of land use on water quality

The NPMP vision does not directly aim to maintain or improve water quality within the Park. However, by protecting the wider environment the vision is considered to be compatible with the SA objective. For example, in order to conserve and enhance the Park's biodiversity and, in particular its aquatic ecosystems, water quality will need to be maintained and improved.

A direct **significant** positive effect on this SA objective is forecast as the NPMP aims to use water resources sustainably and to improve and maintain water quality to a high standard. This should help to resolve the Park's existing issues with the River Usk and Bettws Brook being over licensed.

The NPMP contains several strategic objectives for water resources; maintaining or improving the quality of the Park's groundwater river and lakes; achieving sustainable conservation management of all existing wetlands, rivers and streams within the National Park; and halting the acidification of upland soils and waters within the Park. These should all have a direct **significant** positive effect on this SA objective, while ensuring that water resources are used sustainably across all sectors of the Park and implementing objectives within the River Basin Management Plans to achieve good ecological status should also have a direct positive effect on this SA objective.

The strategic objectives to maximise the benefits of military activity, manage the MOD's land and educate service users on responsible, sustainable and appropriate use of the Park should help to maintain and improve water quality.

Managing soil and peat resources may have effects on water quality; however these remain uncertain as they are dependent on the location and management methods used. Reducing pollution from agricultural activities is likely to have a positive effect on helping to maintain and improve water quality within the Park. Also, the action to promote the use of local and organic food should have a positive effect on this objective as the potential for diffuse pollution from organic food production is lower than that from conventional food production.

The NPMP action to improve and facilitate the prevention and removal of litter through community action, particularly rivers could have a positive effect on water quality. Several of the actions, under the theme '*building and maintaining sustainable*

communities, towns and villages' are likely to have a positive effect on this SA objective. For example, supporting the principles of sustainability, including the prudent use of natural resources, and employing intelligent water management systems in all new developments, including SUDS, should help to maintain and improve water quality.

Under the theme '*conserving and enhancing biodiversity*', the actions to develop monitoring of key habitats, soils and water; to encourage research into carbon and water management on the Park's uplands; to develop habitat improvements and water management benefits through small-scale hydroelectric power generation; to develop a strategy and plan for the restoration of ponds within the wider countryside and to create new habitats through green energy projects such as woodland expansion for wood fuel and wetland creation with hydroelectric schemes are all forecast as likely to have positive effects on this objective.

Several of the actions, under the theme '*managing the Park's landscapes to maximise conservation and public benefits*', are forecast as likely to have positive effects on water quality. These include:

- Establishing the environmental pollution baselines in the NP in accordance with the Wales Environment Strategy;
- Developing a work plan and prioritising activities for each integrated landscape management area, including consideration of sustainable grazing and farming systems, historic environment, landscape components, carbon and energy and water-catchment planning;
- Prioritising understanding of water resources management in the NP; and
- Including policies within the LDP which seek to maintain air, water and soil quality through the control of inappropriate development.

There is some uncertainty over the effect of the NPMP's aim and objectives to encourage more people to come to the Park. Although the aim is to encourage responsible behaviour and to encourage sustainable tourism there remains uncertainty as to whether the increase in visitors will result in impacts on water quality. Nevertheless, positive effects have been forecast for the objective which aims to manage the impacts of tourism.

The effect of the action, to improve access to water resources in the Park, is forecast as uncertain as increasing visitor use of these resources could have an adverse effect on water quality. In particular, the NPMP includes an objective and action on realising the full potential of the Monmouthshire and Brecon Canal. If these lead to increased levels of activity on the canal, particularly boating, this could have a negative impact on its water quality.

The action to work with local businesses to implement existing and new work on several Park activities, including fishing, is forecast as having an uncertain effect on water quality. There is currently some uncertainty over the effect of small scale hydroelectric power schemes on water quality. Although it is likely that the effects of small scale schemes would be minor, they will be dependent on the exact nature, scale and location of the schemes.

There remains some uncertainty over the action to provide more information on routes for the mechanically propelled vehicles. This action could lead to increased usage of these designated areas which could have adverse effects on water quality. However, the action could also lead to reduced negative impacts in areas currently used illegally by these vehicles as the users become aware of the sites in the Park where is this activity is allowed and stop using vehicles in prohibited areas.

Cumulative/Synergistic Effects:
The accumulation of positive and **significant** positive effects indicates the NPMP may have a positive cumulative effect on maintaining and improving water quality.

These significant positive effects for the NPMP should, in combination with the positive effects forecast for water quality within the Welsh Rural Development Plan, due to the modernisation of farm holdings and agri-environment schemes, should have a positive effect on helping the Park to achieve this SA objective.

Overall Assessment for the Objective:

+

Cross-Boundary Effects:
Due to the inter-connected nature of the water environment with links many rivers, streams and groundwater, any effects on water quality, both positive and negative, would be felt in the surrounding areas.

Interrelationships:
The quality of water resources and waterways within the Park will have a direct effect on certain biodiversity species.

Water contamination events could lead to contamination of soils as they act as a filter to remove substances from water.

Recommendations:
Promote the use of Sustainable Urban Drainage Systems (SUDS).

7.3.5 Promote sustainable use of water resources and minimise adverse effects on water quantity

A number of the NPMP's aims and objectives should have positive effects on promoting sustainable use of water and minimising adverse effects on water quantity. For example, using water resources sustainably to integrate the needs of wildlife with the demands from human use should have a direct **significant** positive effect on this SA objective. Also, providing good quality, well designed and sustainable affordable homes could have a positive effect on water quantity by improving water efficiency in new build homes.

The NPMP contains several actions, under the theme '*building and maintaining sustainable communities, towns and villages*', aimed at encouraging the sustainable use of water in new developments, these include:

- Encouraging sustainable development and building design that incorporates sustainable use of water resources;
- Supporting projects which follow the principles of sustainability, i.e., a) social progress which recognises the needs of everyone, b) effective protection of the environment, c) prudent use of natural resources and d) maintenance of high and stable levels of economic growth and employment; and
- Including policy within the LDP which requires all new development to achieve a minimum CSH level 4 / BREEAM very good.

The NPMP contains several strategic objectives for water resources; ensuring that water resources are used sustainably across all sectors of the Park and achieving sustainable conservation management of all existing wetlands, rivers and streams within the NP should both have a **significant** positive effect on this SA objective. In addition, maintaining or improving the quality of the Park's groundwater river and lakes, implementing objectives within the River Basin Management Plans to achieve good ecological status and halting the acidification of upland soils and waters within the Park should have a direct positive effect on this SA objective. The Park's action to develop and support by way of the Sustainable Development Fund the sustainable use of water resources through the support of projects designed to promote access to water should also progress this SA objective.

Under the theme '*conserving and enhancing biodiversity*', several of the actions are forecast as likely to have positive effects, including to:

- Develop monitoring of key habitats, soils and water;
- Encourage research into carbon and water management on the Park's uplands;
- Develop habitat improvements and water management benefits through small-scale hydroelectric power generation,
- Develop a strategy and plan for the restoration of ponds within the wider countryside;
- Create new habitats through green energy projects such as woodland expansion for wood fuel and wetland creation with hydroelectric schemes are; and
- Link biodiversity to water conservation, food production, and small hydro-electric power generation by way of the Green Valleys Project.

Several of the actions, under the theme '*managing Park landscapes to maximise conservation and public benefits*', are also forecast as likely to have a positive effects on this SA objective. These include:

- Developing a work plan and prioritising activities for each integrated landscape management area, including consideration of sustainable grazing and farming systems, historic environment, landscape components, carbon and energy and water-catchment planning; and
- Prioritise understanding of water resources management in the NP.

There is currently some uncertainty over the effect of small scale hydroelectric power schemes on water quantity. Although it is likely the effects of these schemes would be minor, they will be dependent on the exact nature, scale and location of the schemes. Also, there is uncertainty over the effect of irrigation of local crops which could increase levels of abstraction.

There is also uncertainty over the effect related to the NPMP's aim and objectives to encourage more people to come to the Park. Although the aim is to encourage responsible behaviour and to encourage sustainable tourism it is likely that increased visitor numbers will lead to increased water consumption. Nevertheless, positive effects have been forecast for the objective which aims to manage the impacts of tourism.

Cumulative Effects:
The accumulation of positive effects indicates the NPMP may have a positive cumulative effect on water quantity.

These positive effects for the NPMP should, in combination with the positive effects forecast for water quantity for the LDP, have a positive effect on helping the Park to achieve this SA objective.

In addition, several objectives and actions within the NPMP may help to mitigate some of the negative effects on water quantity forecast in the LDP. For example, identifying priority areas for wetland management and water management in the Park's uplands could help to maintain water storage in the Park.

These positive effects for the NPMP should, in combination with the positive effects forecast for water quantity within the Welsh Rural Development Plan, due to the modernisation of farm holdings and agri-environment schemes, should have a positive effect on helping the Park to achieve this SA objective.

Overall Assessment for the Objective:

+

Cross-Boundary Effects:
Due to the inter-connected nature of the water environment with links many rivers, streams and groundwater, any effects on water quantity, both positive and negative, would be felt in the surrounding areas.

Interrelationships:
Changes in the levels of water courses could affect aquatic ecosystems.

Changes in the water table may affect wetland habitats and the preservation of archaeological remains in soils.

Recommendations:
Need to encourage water efficiency measures in tourism facilities, e.g. visitor centres and other attractions. This could include use of rainwater harvesting or grey water recycling.

7.3.6 To protect and enhance soil quality (including non-chemical soil functions and processes such as permeability) and quantity, especially of carbon rich soils

The NPMP vision does not directly aim to protect and enhance soils within the Park. However, by protecting the wider environment, i.e. biodiversity, geodiversity and landscape, the vision is considered compatible with the SA objective. For example, in order to conserve and enhance the Park's biodiversity soils will need to be protected from erosion and contamination.

A number of the NPMP's aims and objectives should have **significant** positive effects on protecting and enhancing soil quality and quantity, for example:

- Using soil resources sustainably to integrate the needs of wildlife with the demands from human use, while improving and maintaining soil to a high standard;
- Halting the continued acidification of upland soils and waters within the Park; and
- Protecting the Park's soils from degradation and erosion.

In addition, a number of the other aims and objectives should have positive effects on this SA objective, these include:

- To improve collaboration and cooperation among stakeholders managing soil and peat resources;
- Enhancing derelict land;
- Maintaining and improving air quality could reduce soil contamination, i.e. from acid rain;
- Reducing waste, energy use and pollution from all agricultural activities;
- Reducing damage done to the Park by mineral working could help to minimise the effects on soil quality and quantity due to minerals abstraction; and
- Restoring upland bogs should help to protect carbon stores.

The NPMP's aims and objectives to manage the Park's woodlands, uplands and biodiversity will have positive effects on protecting and enhancing soil quality and quantity. Also, the strategic objectives to maximise the benefits of military activity, manage the MOD's land and educate service users on responsible, sustainable and appropriate use of the Park should help to protect and enhance soils within the Park.

The action to support the principles of sustainability, particularly the prudent use of natural resources is likely to have a positive effect on protecting soil quality and quantity within the Park.

Increasing the number of visitors to the Park could have an adverse effect on soils, particularly if these visitors are attracted to the Park to undertake hill walking and other recreation activities in the uplands, such as off road driving which can led to soil erosion. However, managing these areas for the benefit of habitat conservation, grazing productivity and public access should help to provide a balance between farming, visitors and protecting soils. Positive effects on soil have been forecast for the objective which aims to manage the impacts of tourism.

Under the theme '*conserving and enhancing biodiversity*', several of the actions are forecast as likely to have positive effects on this SA objective. These include to:

- Develop monitoring of key habitats, soils and water;
- Encourage research into carbon and water management on the Park's uplands;
- Support development and work of PONT (sustainable grazing animals consortium) in Wales; and
- Develop sustainable management of small woodlands to provide woodfuel whilst benefiting biodiversity.

Several of the actions, under the theme '*managing Park landscapes to maximise conservation and public benefits*', are forecast as likely to have a positive effects on this SA objective. These include:

- Establishing the environmental pollution baselines in the NP in accordance with the Wales Environment Strategy;
- Continue to make positive steps to implement the recommendations contained in the BBNPA uplands erosion strategy;
- Developing a work plan and prioritising activities for each integrated landscape management area, including consideration of sustainable grazing and farming systems, historic environment, landscape components, carbon and energy and water-catchment planning;
- Expand native farm woodland habitats towards the higher slopes where existing forests lie to increase native woodland cover in the National Park;
- Restore internationally recognised habitats, including upland bogs, heath land and upland oak woods, where the viability and potential exists;
- Practise continuous cover forestry in forests within the National Park where tree species, aspect, previous management and soils allow; and
- Including policies within the LDP which seek to maintain air, water and soil quality through the control of inappropriate development.

There remains some uncertainty over the action to provide more information on routes for the mechanically propelled vehicles. This action could lead to increased usage of these designated areas which could have adverse effects on soils. However, the action could also lead to reduced negative impacts in areas currently used illegally by these vehicles as the users become aware of the sites in the Park where is this activity is allowed and stop using vehicles in prohibited areas.

There also remains uncertainty with regard to the effect on soils of the action to create new upland open space via felling. The effect will be dependent on the extent of the proposed felling and the potential for erosion.

Cumulative Effects:
The accumulation of positive and significant positive effects indicates the NPMP may have a positive cumulative effect on protecting and enhancing soil quality and quantity.

These positive effects for the NPMP should, in combination with the positive effects forecast for soil within the Welsh Rural Development Plan, due agri-environment schemes, should have a positive effect on helping the Park to achieve this SA objective.

Overall Assessment for the Objective:

+

Cross-Boundary Effects:
None identified.

Interrelationships:
Protecting and enhancing soil quality and quantity by reducing soil erosion will have positive effects on water quality and quantity, i.e. through reduced river siltation.

The sealing of soil surfaces by development can lead to higher surface run-off and increased flooding.

Soils act as an important store for carbon thereby any loss of soils could have a negative effect on climate change mitigation.

Sustainable soil use should maintain and restore the functions of soil organisms to support agriculture, environmental protection and nature conservation. Therefore, protecting and enhancing soil quality and quantity will have positive effects on biodiversity and landscape and positive effects on farming within the Park, thereby helping to promote a thriving locally based economy.

Recommendations:
Restore degraded peatlands and ensure the protection of carbon rich soils.

7.3.7 Conserve geodiversity and promote the understanding and enjoyment of geodiversity

The NPMP is forecast to have **significant** positive effects on conserving and promoting the understanding and enjoyment of geodiversity. The vision for the Park to be widely acclaimed for its geodiversity is extremely compatible with the SA objective for conserving and promoting geodiversity.

The NPMP includes the aim that the Park's internationally-renowned geological and geomorphological features will be conserved and interpreted. This should have a direct **significant** positive effect on this SA objective.

The NPMP contains three strategic objectives aimed at identifying, conserving, enhancing and improving the understanding and enjoyment of the Park's geodiversity. These objectives should have **significant** positive effects on this SA objective. The NPMP contains seven strategic objectives related to enhancing the Fforest Fawr Geopark, of which two should have **significant** positive effects (to develop landscape-scale conservation of geodiversity, bio-diversity and related cultural heritage and to improve the visitor experience, particularly by developing information and interpretation of its special qualities) and four should have direct positive effects on geodiversity. Under the themes '*raising awareness and understanding of the Park*', '*building and maintaining sustainable communities, towns and villages*' and '*sustainable economic development*', the NPMP also contains actions for the Geopark, which are also forecast as likely to have a positive effect on this SA objective.

The NPMP includes several other aims and objectives that should also have a positive effect on geodiversity, including:

- The beautiful and varied character of the landscape will continue to be well-managed and cared for. Landscape change will be encouraged to benefit the Park's biodiversity, geodiversity and cultural heritage.
- People will better understand the contributions geodiversity and biodiversity make to the landscape, economy and environment.

- All those with an interest in the Brecon Beacons National Park will understand and embrace the vision of this special place and work together to sustain it.
- Reduce the damage done to the Park by mineral working whilst fulfilling the NPA's obligation as a Mineral Planning Authority.
- Apply WAG's policies against mineral working in National Park to the BBNP's identified sand and gravel deposits.

The strategic objectives to maximise the benefits of military activity, manage the MOD's land and educate service users on responsible, sustainable and appropriate use of the Park should help to conserve the Park's geodiversity.

The NPMP action to protect and enhance the conservation value of limestone pavements should progress this SA objective through the protection and enhancement of this geodiversity feature. Several of the actions, under the theme '*managing Park landscapes to maximise conservation and public benefits*', are forecast as likely to have a positive effects on this SA objective. These include:

- Developing an electronic index that identifies natural and historical data sets relevant to NP management and who holds the information. The index will include an evaluation of the data sets (metadata) as well and be publically accessible;
- Conducting a Southeast Wales Regionally Important Geological/ Geomorphological Sites (RIGS) audit;
- Planning and undertaking site based conservation project work on sites of geological importance; and
- Monitoring SSSI/SAC/SPAs with geological importance and taking action to ensure their favourable conservation status.

The action to include policies within the LDP which ensure that future development proposals do not harm the rich geodiversity of the National Park in any way is forecast as likely to have a **significant** positive effect on this SA objective.

There is some uncertainty over the effects relating to the NPMP's aim and objectives to encourage more people to come to the Park. Although the aim is to encourage responsible behaviour and to encourage sustainable tourism there remains uncertainty as to whether the increase in visitors will result in adverse impacts on geodiversity due to increased recreational pressures. Nevertheless, positive effects have been forecast on geodiversity for the objective which aims to manage the impacts of tourism.

There is some uncertainty over the effect of the NPMP's aim to replace the need for minerals resources as minerals extraction can lead to the creation of new sites of geodiversity interest and thereby reducing the likelihood of these discoveries.

Cumulative Effects:
Combined the positive and significant positive effects forecast for the vision, aims, objectives and actions of the NPMP should have a **significant** positive effect on conserving geodiversity and promoting the understanding and enjoyment of geodiversity with the National Park.

These significant positive effects for the NPMP should, in combination with the positive effects forecast for geodiversity for the LDP, have a significant positive effect on helping the Park to achieve this SA objective.

Overall Assessment for the Objective:

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Cross-Boundary Effects:
None indentified.

Interrelationships:
Conserving geodiversity is likely to have indirect positive effects on maintaining and enhancing both landscape and biodiversity.

7.3.8 To value, conserve and enhance the diversity of species, habitats and ecosystems

The NPMP is forecast to have **significant** positive effects on valuing, conserving and enhancing the diversity of species, habitats and ecosystems. The vision for the Park to be widely acclaimed for its biodiversity is extremely compatible with the SA objective to value, conserve and enhance biodiversity.

The NPMP includes the aim that the Park's stakeholders will encourage biodiversity to flourish and adapt to climate change and improved habitat connectivity and exemplary management of all statutory and non-statutory designated nature conservation sites will enhance the condition and diversity of species and habitats in the Park. This should have **significant** positive effects relating to conserving and enhancing biodiversity.

The NPMP contains other aims that should also have a positive effect on biodiversity, including:

- The beautiful and varied character of the landscape will continue to be well-managed and cared for. Landscape change will be encouraged to benefit the Park's biodiversity, geodiversity and cultural heritage;
- Air, water and soil resources will be used sustainably to integrate the needs of wildlife with the needs of humans. Their quality will be brought up to and maintained at a high standard as appropriate;
- People will better understand the contributions geodiversity and biodiversity make to the landscape, economy and environment; and
- All those with an interest in the Brecon Beacons National Park will understand and embrace the vision of this special place and work together to sustain it.

The NPMP contains aims and objectives which seek to improve the management of uplands and woodlands for the benefit of habitat conservation and ecological values. This should have a direct positive effect on conserving and enhancing these habitats. In particular, objectives to restore internationally recognised habitats, many of which are in an unfavourable condition, and to restore and enhance habitat connectivity in the upland areas should have a **significant** positive effect on both habitats and species.

The Park's aim that the sense of tranquillity, peace and remoteness throughout the National Park will be conserved and enhanced should help to minimise disturbance to biodiversity. The objective to reduce the adverse effects on the Park's landscape, biodiversity and historic interest and on others' enjoyment caused by military exercises and adventurous training could have an positive effect on this SA objective as reducing noise from low flying aircraft and helicopters could reduce disturbance to species. The NPMP also contains a specific objective aimed at minimising light and noise pollution, which should also help to reduce levels of disturbance. The other strategic objectives to maximise the benefits of military activity, manage MOD's land and educate service users on responsible, sustainable and appropriate use of the Park should also help to conserve and enhance biodiversity.

The NPMP contains six biodiversity strategic objectives which are forecast to have a direct **significant** positive effect in valuing, conserving and enhancing the diversity of species, habitats and ecosystems. These objectives aim to:

- Utilise a landscape-scale approach to biodiversity conservation, built on good management of soil, air, and water quality;
- Integrate effective biodiversity conservation into economically viable agricultural and arboricultural systems;

- Maintain the extent and quality of priority habitats and the range and/or population of priority species;
- Ensure that sustainable management of designated sites maintains habitats and species populations at a favourable conservation status;
- Ensure that the wider countryside also contains sufficient habitat in favourable condition to provide a high quality, interconnected landscape to conserve and enhance priority species; and
- Meet and, if possible, exceed the local biodiversity targets for the restoration and expansion of habitats and the expansion of species' distribution patterns and population sizes.

Seeking innovative solutions to environmental challenges which integrate biodiversity conservation with education, interpretation, other resource management priorities, and social, economic and cultural sustainability should also have a direct positive effect on this SA objective.

Other strategic objectives within the NPMP aimed at maintaining and improving landscape, geodiversity, air, water and soil resources should also have a positive effect on biodiversity. For example, maintaining and improving the quality of the Park's groundwater, lakes and rivers will help to protect aquatic ecosystems. The NPMP also contains an action aimed at improving and facilitating the prevention and removal of litter through community action, particularly from rivers. Reducing litter is likely to have positive effects on habitats and species.

Reducing the damage done to the Park by minerals working is forecast as having a positive effect on biodiversity. The objective should only allow for new or extended minerals working in the Park under exceptional circumstances where it is demonstrated to be in the public interest. This should therefore limit any potential adverse effects from minerals workings on biodiversity. However, as the objective does not prevent extraction in the Park there is the potential for some adverse effects in the long term.

The NPMP actions under the theme '*conserving and enhancing biodiversity*' are likely to have a positive effect on this SA objective, for example, producing a revised Local Biodiversity Action Plan should have a positive effect on preventing the loss of target habitats and species. Two actions have also been forecast as likely to have **significant** positive effects on this SA objective, these include:

- Including policies within the LDP which ensures that all new development assesses potential impact upon biodiversity and proposes mitigation and enhancement strategies through the design process; and
- Ensuring that there are policies within the LDP which continue to give provision for the seeking of planning obligations to provide for biodiversity mitigation and enhancement measures from larger developments.

Several of the actions, under the theme '*managing Park landscapes to maximise conservation and public benefits*' are also likely to have **significant** positive effects on biodiversity. These include:

- Restoring and enhancing habitat connectivity across the Park's contiguous uplands; and
- Restoring internationally recognised habitats, including upland bogs, heath land and upland oak woods, where the viability and potential exists.

Other actions under this theme have been identified as likely to have positive effects, for example, developing an invasive species management plan.

The action to develop a management plan for the Waterfalls Area could reduce current negative effects on the features within this site which are currently under pressure from increasing visitor numbers.

Several of the actions, under the theme '*building and maintaining sustainable communities, towns and villages*' are likely to have a positive effect on this SA objective. Supporting the principles of sustainability, including the prudent use of natural resources, and employing intelligent water management systems in all new developments, including SUDS, should help to conserve and enhance habitats and species.

Including a policy within the LDP that requires all new development to achieve a minimum CSH4/BREAM 'very good' should have a positive effect on this objective. The standards discourage development on ecologically valuable sites, require that existing ecological features are protected from damage and encourage ecological enhancement.

The NPMP action, under the theme '*raising awareness and understanding of the Park*', to encourage and promote sustainable use of the NP, including promotion of the countryside code, providing information on illegal versus legal access, responsible use of the countryside, information for dog owners, information and the importance of taking litter home is likely to have a positive effect on conserving and enhancing biodiversity within the Park.

There is some uncertainty over the effect of the NPMP's aim and objectives to encourage more people to come to the Park. Although the aim is to encourage responsible behaviour and to encourage sustainable tourism there remains uncertainty as to whether the increase in visitors will result in adverse impacts on biodiversity due to increased recreational pressures. In addition, improving access across the Park could also have adverse impacts on biodiversity. These effects will be dependent on the type, location and scale of access routes. However, positive effects have been forecast for the objective which aims to manage the impacts of tourism.

Enhancing derelict land as part of landscape objectives could have adverse effects on habitats and species if the derelict land has a high biodiversity value. Conversely, the remediation of contaminated land may provide biodiversity benefits. Therefore the objective is forecast to have uncertain effects on biodiversity.

There is currently some uncertainty over the effects of small scale hydroelectric power schemes on biodiversity. For example, these small scale schemes could have an adverse effect on migratory species. Although it is likely the effects of small scale schemes would be minor they will be dependent on the exact nature, scale and location of the schemes.

The effect of the action, to improve access to water resources in the Park, is forecast as uncertain as increasing visitor use of these resources could have an adverse effect on water quality thereby indirectly affecting aquatic habitats and species. Adverse effects related to increased disturbance may also result, for example, affecting the spawning of shad and salmon. The NPMP includes an objective and action on realising the full potential of the Monmouthshire and Brecon Canal. If these lead to increased levels of activity on the canal, particularly boating, this could have a negative impact on its habitats and species.

The action to work with local businesses to implement existing and new work on several Park activities, including fishing, is also forecast as having an uncertain effect on aquatic habitats and species.

The aim to experiment with novel approaches to sustainable development is forecast to have uncertain effects on biodiversity. Depending on the type of intervention some new techniques may have unexpected adverse effects on biodiversity. Similarly, experimenting with new approaches to renewable energy production, reducing reliance on fossil fuels and local energy production are also forecast as having uncertain effects on biodiversity. Much of the affect will depend on the type, scale and location of new energy generation and technologies used.

There is currently some uncertainty over the effect of the NPMP's objective for maintaining and enhancing viable and productive farming businesses within the Park. This objective could have adverse effects on habitats and species.

There remains some uncertainty over the action to provide more information on routes for the mechanically propelled vehicles. This action could lead to increased usage of these designated areas which could have adverse effects on habitats and species. However, the action could also lead to reduced negative impacts in areas currently used illegally by these vehicles as the users become aware of the sites in the Park where is this activity is allowed and stop using vehicles in prohibited areas.

Several of the actions under theme '*managing the Park landscape to maximise conservation and public benefits*' are forecast as having an uncertain effect on biodiversity. Liaising with partners on the reform of rural support measures to enhance the delivery of public benefits within the countryside may have a positive effect on biodiversity should any reforms occur that will improve conservation of biodiversity.

There also remains uncertainty with regard to the effects on biodiversity of the action to create new upland open space via felling. The effects will be dependent on the extent of the proposed felling and the ecological value of the woodlands to be felled. In addition, maintaining coniferous forests which may have a lower ecological value, will also have an uncertain effect on this SA objective.

Cumulative Effects:
Combined, the positive and significant positive effects forecast for the vision, aims, objectives and actions of the NPMP should have a **significant** positive effect on conserving and enhancing biodiversity within the National Park.

These significant positive effects could help to mitigate the potential adverse cumulative effects forecast on biodiversity due to housing development in the LDP.

These significant positive effects for the NPMP should, in combination with the positive effects forecast for biodiversity within the Welsh Rural Development Plan, due agri-environment schemes, should have a positive effect on helping the Park to achieve this SA objective.

Overall Assessment for the Objective:

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Cross-Boundary Effects:
Due to the interconnected nature of the riverine environment improvements in aquatic biodiversity within the Park will likely have positive effects on biodiversity in connected rivers outside of the Park.

Interrelationships:
Valuing, conserving and enhancing the diversity of species, habitats and ecosystems should also have positive effects on geodiversity and landscape in the Park as biodiversity designations may also be important sites for geodiversity or landscape. Protecting biodiversity could also have an indirect positive effect on soils and water quality.

Improving access to natural green space and green space in urban environments can help to improve life expectancy and decrease health complaints. It is increasingly recognised that a favourable environment can encourage people to exercise, providing psychological and social benefits that may also increase the motivation to exercise[33]. Thereby, conserving and enhancing species, habitats and ecosystems should improve access to the natural environment.

[33] Bird, W (2004) Natural Fit: Can Green Space and Biodiversity Increase Levels of Physical Activity? RSPB. UK.

Recommendations:
Encourage the maintenance or creation of Green Infrastructure, including wildlife corridors and/or stepping stones which will enable the migration of species. This would help support the Wales Spatial Plans aim to join up natural habitats.

7.3.9 To understand, value, protect and manage historic landscapes, scheduled ancient monuments and other archaeological features appropriately

The NPMP is forecast to have **significant** positive effects on this SA objective. The vision for the Park to be widely acclaimed for its cultural heritage is extremely compatible with this SA objective.

The NPMP includes the following aims which should have direct **significant** positive effects on protecting cultural heritage within the Park:

- The Park's historic settlement patterns and buildings will be conserved and enhanced. New development will adhere to sustainable design principles and complement the existing built heritage of the Park;
- Historic landscapes and archaeological features will be protected, conserved and enhanced; and
- The historic environment will be better understood and valued as an important link among past, present and future generations.

The NPMP also includes the following aims which should have direct positive effects on protecting cultural heritage within the Park:

- The beautiful and varied character of the landscape will continue to be well-managed and cared for. Landscape change will be encouraged to benefit the Park's biodiversity, geodiversity and cultural heritage;
- The upland commons will be managed for the benefit of habitat conservation, grazing productivity, archaeological features, energy, public accessibility and to the provision of other public benefits;
- The traditional pattern of farmed land and its characteristic, historic features and habitats will be conserved and enhanced, providing the basis for a thriving economy;
- The contributions that historic landscapes, local distinctiveness and vernacular buildings make to the economy and environment will be recognised and promoted; and
- All those with an interest in the Brecon Beacons National Park will understand and embrace the vision of this special place and work together to sustain it.

The NPMP contains five historic strategic objectives which are forecast to have direct **significant** positive effects on understanding, valuing, protecting and managing historic landscapes, scheduled ancient monuments and other archaeological features. These objectives aim to:

- Protect and manage historic landscapes;
- Protect and manage historic parks and gardens;
- Protect and enhance scheduled and designated sites;
- Seek to protect and enhance, where appropriate, regionally and locally important historic environment features (including historic buildings and archaeological sites) that do not have statutory designation;
- Seek to manage all sites appropriately, concentrating on threatened and neglected sites/types whilst involving local communities.

The NPMP also contains several other objectives aimed at protecting the historic and built environment which are forecast to have direct positive effects on this SA objective, for example through protecting listed buildings which may form part of a historic landscape. Also, maintaining and enhancing upland farming in the Park should help to protect the landscape created by this activity.

The NPMP contains strategic objectives aimed at promoting the Park's culture and traditions. These objectives could also have a positive effect on cultural heritage as they aim to develop understanding and awareness of cultural life and traditions as well ass promoting cultural heritage as a visitor attraction.

Other strategic objectives within the NPMP aimed at maintaining and improving landscape, geodiversity and soil resources should also have a positive effect on cultural heritage. For example, conserving and enhancing the sense of tranquillity, peace and remoteness throughout the Park should have a positive effect on historic landscapes. The NPMP also contains aims and objectives which aim to improve the management of uplands and woodlands. This should have a positive effect on conserving and enhancing these habitats thereby having an indirect positive effect on protecting the Park's historic landscapes and features.

The NPMP contains many strategic objectives aimed at improving information, interpretation and education relating to the Park's special qualities. It is forecast that these objectives will have positive effects on this SA objective by improving the understanding and valuing of historic landscapes and features within the Park.

The strategic objectives relating to Fforrest Fawr Geopark should have a positive effect on the SA objective as they aim to act as focus for environmental and earth science education. In addition, the strategic objectives to reduce the adverse effects of military activity of the Park's historic interest, maximise the benefits of military activity, manage the MOD's land and educate service users on responsible, sustainable and appropriate use of the Park should help to understand, value, protect and manage historic landscapes, scheduled ancient monuments and other archaeological features appropriately.

Many of the NPMP actions under the theme '*building community pride and sense of place*' are forecast as likely to have a positive effect on this SA objective. For example, continued use of stone roofing tiles will help to protect historic landscapes and promoting training in local knowledge and skills, such as traditional farming techniques, should help to manage the historic landscape. Several of the actions under the theme '*building sustainable communities, towns and villages*' should also have a positive effect on this SA objective, for example, developing monitoring of built heritage and undertaking a landscape character assessment should help to increase understanding the features within the Park. In addition, producing village design statements for settlements whose development pattern and architectural heritage are of historical value should help to protect the historical landscapes within these settlements.

Many of the actions under the themes '*conserving and enhancing biodiversity*' and '*managing Park landscapes to maximise conservation and public benefits*' should have a positive effect on this SA objective through the protection or expansion of landscapes and habitats which form part of the historic landscape within the Park, for example, limestone pavements, woodlands and upland bogs. Other actions under these themes which are also likely to have a positive effect include:

- Support development and work of PONT (sustainable grazing animals consortium) in Wales;
- Support projects to retain skills and knowledge of local land management practices;
- Create new habitats through green energy projects such as woodland expansion for wood fuel and wetland creation with hydroelectric schemes;

- Develop and implement methods to assess and monitor landscape change across the National Park;
- Continue to make positive steps to implement recommendations contained in the BBNP upland erosion strategy; and
- Ensure recreational activities minimise impact on biodiversity and landscape.

There is some uncertainty over the effect of the NPMP's aim and objectives to encourage more people to come to the Park. Although the aim is to encourage responsible behaviour and to encourage sustainable tourism there remains uncertainty as to whether the increase in visitors will result in adverse impacts on cultural heritage due to increased recreational pressures. In addition, improving access across the Park could also have adverse effects on cultural heritage. These effects will be dependent on the type, location and scale of access routes. However, positive effects have been forecast for the objective which aims to manage the impacts of tourism.

The aim to experiment with novel approaches to sustainable development is forecast to have uncertain effects on cultural heritage. Depending on the type of intervention some new techniques may have unexpected adverse effects on cultural heritage. Similarly, experimenting with new approaches to renewable energy production, reducing reliance on fossil fuels and local energy production are also forecast as having uncertain effects on cultural heritage. Much of the affect will depend on the type, scale and location of new energy generation and technologies used.

The effects of the NPMP action to continue to renew and replace waymarkers and fingerposts on cultural heritage are uncertain. Traditional fingerposts and waymarkers may be important historical features and thereby their replacement may affect the historic landscape. This will be dependent on the design of the new waymarkers used.

There remains some uncertainty over the action to provide more information on routes for the mechanically propelled vehicles. This action could lead to increased usage of these designated areas which could have adverse effects on this SA objective should these routes pass through historic landscapes. However, the action could also lead to reduced negative impacts in areas currently used illegally by these vehicles as the users become aware of the sites in the Park where is this activity is allowed and stop using vehicles in prohibited areas.

Creating new upland open space via felling may affect the historic landscape depending the location and extent of the felling. The effect of the action to create new community woodlands on historic landscapes is unclear. The effect is dependent on the integration of the new woodland within existing landscapes.

Cumulative Effects:
Combined the positive and significant positive effects forecast for the vision, aims, objectives and actions of the NPMP should have a **significant** positive effect on understanding, valuing, protecting and managing historic landscapes, scheduled ancient monuments and other archaeological features appropriately.

These significant positive effects could help to mitigate the potential adverse cumulative effects forecast on historic landscapes in the LDP.

These significant positive effects for the NPMP should, in combination with the positive effects forecast for the historic environment within the Welsh Rural Development Plan, due agri-environment schemes, should have a positive effect on helping the Park to achieve this SA objective.

Overall Assessment for the Objective:

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Cross-Boundary Effects:
None identified.

Interrelationships:
The quality of historic assets will have a direct effect on the quality of the landscape within the Park.

7.3.10 Maintain and enhance the quality of the built environment

The NPMP is forecast to have positive effects on maintaining and enhancing the quality of the built environment. The vision for the Park to be widely acclaimed for its cultural heritage is compatible with this SA objective.

Aiming to conserve and enhance the Park's historic settlement patterns and ensuring new development complements the existing built heritage should have a **significant** positive effect on the quality of the built environment within the Park. Encouraging the historic environment to be better understood and valued should also have a **significant** positive effect on this SA objective.

The NPMP includes the following aims which should have direct positive effects on maintaining and enhancing the built environment within the Park:

- Historic landscapes and archaeological features will be protected, conserved and enhanced;
- The contributions that historic landscapes, local distinctiveness and vernacular buildings make to the economy and environment will be recognised and promoted; and
- All those with an interest in the Brecon Beacons National Park will understand and embrace the vision of this special place and work together to sustain it.

Developing good quality, well designed and sustainable housing could help to conserve the character of buildings and the street scene in Conservation Areas and should promote high quality design and a sense of place.

The NPMP contains five built environment strategic objectives which are forecast to have a direct **significant** positive effect on maintaining and enhancing the quality of the built environment, including:

- All buildings of listable quality should be listed;
- All listed buildings and their settings should be conserved and their condition improved, concentrating on buildings at risk;
- Protect unlisted buildings that contribute to the Park's built heritage;
- Conserve and enhance settlements and settlement patterns; and
- Promote built heritage education and awareness.

Objectives to maintain and encourage the vitality of the Park's communities and town centres and to improve the physical quality of all development throughout the Park should promote high quality design and the development of a sense of place. Therefore, these objectives are forecast as having a positive effect on this objective.

Other strategic objectives within the NPMP aimed at maintaining and improving landscape and the historic environment should also have a positive effect on cultural heritage. For example, enhancing derelict land should enhance the built environment by improving the sense of place and reducing any adverse impacts on any nearby Listed Buildings or Conservation Areas. In addition, the strategic objectives to reduce the adverse effects of military activity of the Park's historic interest, maximise the benefits of military activity, manage the MOD's land and educate service users on responsible,

sustainable and appropriate use of the Park should help to maintain and enhance the built environment.

Many of the NPMP actions under the theme '*building community pride and sense of place*' are forecast as likely to have a positive effect on this SA objective. For example, continued use of stone roofing tiles could help to conserve Listed Buildings and Conservation Areas, while seeking partners to increase the funding and scope of the Town Programs for Brecon and Talgarth could lead to an improved built environment in these settlements. Several of the actions under the theme '*building sustainable communities, towns and villages*' should also have a positive effect on this SA objective by encouraging high quality and appropriate development, these include:

- Develop monitoring of built heritage;
- Encourage sustainable development and building design that incorporates sustainable use of water resources;
- Promote use and re-use of local building stone where compatible with the statutory conservation objectives of the National Park and its relevant planning policies;
- Undertake landscape character assessment as a component of the LDP settlement survey to ensure that the protection of high quality landscapes forms a significant consideration in the location of future development;
- Include policies within the LDP which require all new proposals for development to be responsive and related to their context, sympathetically designed and in keeping with the character of the landscape;
- Undertake audit of building types within LDP settlement survey to provide baseline evidence as to the character of the built environment and vernacular architectural traditions;
- Work with communities to produce village design statements for those settlements whose development pattern and architectural heritage are of historic value and form a significant part of the areas cultural heritage;
- Include policies within the LDP which work to maintain the integrity of the vernacular traditions of the built environment;
- Include policy within the LDP which requires all new development to achieve a minimum CSH level 4 / BREEAM very good; and
- Include policies within the LDP which require all new development to minimise impact on flood risk by employing intelligent water management systems, such as SUDs, to ensure that there is no net increase in water runoff as a result of the development.

Implementing 'sense of place' training should have a positive effect on this SA objective. Also using the findings of a tourist facilities audit to provide sustainable tourism opportunities which are in-keeping with settlement character and capacity should also progress this SA objective.

Actions under the theme '*managing Park landscapes to maximise conservation and public benefits*' aimed at monitoring the historic environment and creating a publicly accessible electronic index of natural and historic data should have a positive effect on maintaining and enhancing the built environment, in particular Listed Buildings and Conservation Areas.

The aim to experiment with novel approaches to sustainable development is forecast to have uncertain effects on the built environment, particularly Listed Buildings and Conservation Areas. Depending on the type of intervention some new techniques may have unexpected adverse effects on these designations. Similarly, experimenting with new approaches to renewable energy production, reducing reliance on fossil fuels and

local energy production are also forecast as having uncertain effects on the built environment, including Listed Buildings and Conservation Areas and sense of place. Much of the affect will depend on the type, scale and location of new energy generation and technologies used.

There is some uncertainty over the effect of the NPMP's aim and objectives to encourage more people to come to the Park. Although the aim is to encourage responsible behaviour and to encourage sustainable tourism there remains uncertainty as to whether the increase in visitors will result in adverse impacts on the Listed Buildings, Conservation Areas and sense of place due to increased visitor pressures.

In addition, improving access across the Park and could also have adverse impacts on the built environment. These effects will be dependent on the type, location and scale of access routes and their relationship with Listed Buildings and Conservation Areas. Nevertheless, positive effects have been forecast for several of the Sustainable Tourism objectives which aim to enhance the National Park experience, manage the impacts of tourism and promote the Park as an exemplar of sustainable living. These objectives should have positive effects by promoting high quality design and the development of a sense of place.

Cumulative Effects:
Combined the positive and significant positive effects forecast for the vision, aims, objectives and actions of the NPMP should have a positive effect on maintaining and enhancing the quality of the built environment.

Overall Assessment for the Objective:

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Cross-Boundary Effects:
None identified.

Interrelationships:
The quality of Listed Buildings and Conservation Areas will have a direct affect on the quality of the landscape within the Park.

7.3.11 Maintain and enhance the Park's landscape character and its associated features

The NPMP is forecast to have **significant** positive effects on maintaining and enhancing the Park's landscape character and its associated features. The vision for the Park to be widely acclaimed for its natural beauty is directly compatible with this SA objective.

The NPMP includes the following aims which should have direct **significant** positive effects on maintaining and enhancing landscape within the Park:

- The beautiful and varied character of the landscape will continue to be well-managed and cared for. Landscape change will be encouraged to benefit the Park's biodiversity, geodiversity and cultural heritage; and
- The sense of tranquillity, peace, and remoteness experienced throughout the National Park will be conserved and enhanced.

Other aims within the NPMP aimed at protecting and enhancing biodiversity, geodiversity, woodlands and the historic environment within the Park will also have positive effects on landscape.

The NPMP contains four landscape strategic objectives which are forecast to have a **significant** direct positive effect on maintaining and enhancing the Park's landscape character. These objectives aim to:

- Conserve and enhance the sense of tranquillity, peace, and remoteness experienced throughout the National Park;
- Conserve and enhance the beautiful and varied character of the landscape via sustainable, integrated management;
- Prevent degradation of the Park's landscape and enhance derelict land; and
- Develop understanding and awareness of landscape's varied character and the processes that influence it.

A number of other strategic objectives within the NPMP aimed at maintaining and improving biodiversity, air quality, water resources, the built environment and the historic environment should also have a positive effect on landscape character. For example, conserving and enhancing settlement and settlement patterns will help to maintain and enhance the character of the Park's communities. Maintaining upland farms should help to maintain landscape character, while reducing the damage done to the Park by minerals working should protect the Park's landscape.

The NPMP contains objectives which aim to improve both woodland and upland management. These objectives are forecast as likely to have positive effects on landscape character as they should help to enhance these habitats which characterise the Park.

Providing local distinctive, sympathetic and sustainable interpretation in the Park should have a positive effect on this SA objective as it should ensure that signage across the Park is in keeping with landscape character. The strategic objectives relating to Fforrest Fawr Geopark should also have positive effects on the SA objective by protecting this geophysical landscape within the Park.

The strategic objective and action to realise the full potential of the Monmouthshire and Brecon Canal whilst conserving and enhancing its attractive setting should help to progress this SA objective.

The strategic objectives to reduce the adverse effects of military activity of the Park's historic interest, maximise the benefits of military activity, manage the MOD's land and educate service users on responsible, sustainable and appropriate use of the Park should help to maintain and enhance the Park's landscape character.

The NPMP action, under the theme '*raising awareness and understanding of the Park*', to encourage and promote sustainable use of the NP, including promotion of the countryside code, providing information on illegal versus legal access, responsible use of the countryside, information for dog owners, information and the importance of taking litter home is likely to have positive effects on maintaining and enhancing the Park's landscape character.

Many of the NPMP actions under the theme '*building community pride and sense of place*' are forecast as likely to have a positive effect on this SA objective. For example, continued use of stone roofing tiles and investigating the removal of street clutter should help to protect and enhance landscape character. Several of the actions under the theme '*building sustainable communities, towns and villages'* should also have positive effects on this SA objective by encouraging development that considers landscape character, including:

- Undertake landscape character assessment as a component of the LDP settlement survey to ensure that the protection of high quality landscapes forms a significant consideration in the location of future development;
- Include policies within the LDP which require all new proposals for development to be responsive and related to their context, sympathetically designed and in keeping with the character of the landscape;

- Work with communities to produce village design statements for those settlements whose development pattern and architectural heritage are of historic value and form a significant part of the areas cultural heritage; and
- Include policy within the LDP which requires all new development to achieve a minimum CSH level 4 / BREEAM very good.

Many of the actions under the themes '*conserving and enhancing biodiversity*' and '*managing Park landscapes to maximise conservation and public benefits*' should have positive effects on this SA objective through the protection or expansion of landscapes and habitats which form part of the landscape character within the Park, for example, limestone pavements, woodlands and upland bogs. Other actions under these themes which are also likely to have positive effects include:

- Support development and work of PONT (sustainable grazing animals consortium) in Wales;
- Support projects to retain skills and knowledge of local land management practices;
- Develop and implement methods to assess and monitor landscape change across the National Park;
- Continue to make positive steps to implement recommendations contained in the BBNP upland erosion strategy;
- Develop a work plan and prioritise activities for each integrated landscape management area, including consideration of sustainable grazing and farming systems, historic environment, landscape components, carbon and energy and water-catchment planning;
- Integrate woodland management into the LDP within the Park; and
- Ensure recreational activities minimise impact on biodiversity and landscape.

Actions under the theme '*managing Park landscapes to maximise conservation and public benefits*' aimed at monitoring the historic environment and creating a publicly accessible electronic index of natural and historic data should have positive effects on maintaining and enhancing the built environment, in particular Listed Buildings and Conservation Areas.

Experimenting with novel approaches to sustainable development is forecast to have uncertain effects on landscape character. Depending on the type of intervention some new techniques may have adverse effects on the Park's landscape. Similarly, experimenting with new approaches to renewable energy production, reducing reliance on fossil fuels and local energy production are also forecast as having uncertain effects on landscape character. Many of the effects will be dependent on the type, scale and location of new energy generation and technologies used. However, the NPMP does state that large-scale renewable energy projects such as wind farms are not appropriate in the National Park so these potential effects on landscape should not be significant.

There is some uncertainty over the effect of the NPMP's aims and objectives to encourage more people to come to the Park. Although the aim is to encourage responsible behaviour and to encourage sustainable tourism there remains uncertainty as to whether the increase in visitors will result in adverse impacts on landscape character due to increased tourist infrastructure and increased recreational pressures. In addition, improving access across the Park could also have adverse impacts on landscape. These effects will be dependent on the type, location and scale of access routes. However, positive effects have been forecast for the objective which aims to manage the impacts of tourism.

The effect of the NPMP action to continue to renew and replace waymarkers and fingerposts on landscape character is uncertain. Traditional fingerposts and waymarkers may be important landscape features and thereby their replacement may affect

landscape character. There also remains some uncertainty over the action to provide more information on routes for the mechanically propelled vehicles. This action could lead to increased usage of these designated areas which could have adverse effects on this SA objective should these routes pass through high quality landscapes. However, the action could also lead to reduced negative impacts in areas currently used illegally by propelled vehicles as the users become aware of the sites in the Park where is this activity is allowed and stop using vehicles in prohibited areas.

Providing information on parking facilities within the Park may reduce informal parking within the Park which could at present be having adverse effects on landscape character in some areas.

Creating new upland open space via felling may affect landscape character depending the location and extent of the felling. The effect of the action to create new community woodlands on landscape character is unclear. The effects are dependent on the integration of the new woodland within existing landscapes.

Although promoting the use of local building stone could help to protect and enhance landscape character in the areas in which it is used, extracting this material may have adverse effects on the Park's landscape should this extraction take place in the Park.

Cumulative Effects:
Combined, the positive and significant positive effects forecast for the vision, aims, objectives and actions of the NPMP should have a **significant** positive effect on maintaining and enhancing the Park's landscape character and its associated features.

These significant positive effects for the NPMP should, in combination with the positive effects forecast for the landscape within the Welsh Rural Development Plan, due agri-environment schemes, should have a positive effect on helping the Park to achieve this SA objective.

Overall Assessment for the Objective:

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Cross-Boundary Effects:
None identified.

Interrelationships:
Maintaining and enhancing landscapes within the Park will also provide protection for habitats, species and ecosystems and will also contribute towards the protection of the historic landscape.

Through promoting access to landscape and the countryside, it is possible that health benefits can be gained through increasing walking, cycling and other physical outdoor activities. It is thought that there may be additional mental health benefits of reduced stress. Therefore, by maintaining and enhancing landscape character more people will have access to high quality natural environment.

Recommendations:
In order to protect the upland landscape from future climate change the NPMP should:

- Preserve healthy or restore degraded peatlands;
- Improve soil cover; and
- Extend woodland on marginal agricultural land and mange existing woodland to ensure a mixed age structure of tress[34].

[34] Environment Agency (2008) Climate change in the uplands: safeguarding vital services http://publications.environment-agency.gov.uk/pdf/GEHO0508BOBV-e-e.pdf

7.3.12 Make sustainable use of natural resources and build and maintain environmentally friendly, high quality, services and infrastructure

The NPMP is forecast to have positive effects on making use of natural resources and building and maintaining environmentally friendly, high quality services and infrastructure. The vision for the Park to be a place where people can earn a living from the land in innovative and sustainable manner is compatible with making sustainable use of natural resources.

Managing woodlands as a renewable resource should have direct positive effects on this SA objective. As should the aim to use air, water and soil resources sustainably. The NPMP furthermore contains an objective to protect the Park's soils from degradation and erosion which should also help to protect this natural resource. The NPMP also intends that industries within the Park, including farming, small rural businesses and tourism, will maximise economic opportunities whilst promoting resource conservation.

Local communities and businesses in the Park will be encouraged to experiment with and adopt new approaches to waste reduction which should lead to sustainable waste management. The NPMP contains two specific objectives aimed at promoting the waste hierarchy which are forecast to have **significant** positive effects. In addition, the objective to reducing waste from agricultural activities will also have positive effects on this SA objective.

Improving the physical quality, energy efficiency, accessibility, and sustainable design and construction of all development activities throughout the Park will have positive effects on this objective by helping to build and maintain environmentally friendly, high quality, services and infrastructure. In particular, the provision of good quality, well designed and sustainable affordable housing will have a positive effect on this SA objective. In addition, ensuring that there is sufficient land to meet housing and employment requirements will help to progress this objective.

The Park's objectives to provide an integrated transport system; to encourage the development of new and existing transport services and to facilitate sustainable long distance transport to the National Park should have a positive effect on this objective by helping to build and maintain environmentally friendly, high quality, transport services and infrastructure.

By limiting minerals extraction within the Park and encouraging the exploration of more sustainable options the NPMP's aims, in relation to minerals development, may encourage higher resource efficiency and the use of secondary and recycled materials. The strategic objectives aimed at increasing use of renewable energy and minimising energy use should have positive effects on the objective by minimising the use of finite resources and promoting higher resource efficiency.

The action, under the theme '*raising awareness and understanding of the Park*', to invest in sustainability of all interpretation, education and information, including use of sustainable materials and demonstration of sustainability to the public should have positive effects on this SA objective.

Several of the actions, under the theme '*building and maintaining sustainable communities, towns and villages*', are forecast as likely to have positive effects on this SA objective. For example, promoting the use and re-use of local building stone and supporting the principles of sustainability, particularly the prudent use of materials should help to minimise the use of finite materials. The action to prohibit new minerals working could encourage greater re-use of local building stone and thereby have a positive effect on this SA objective, whilst preventing sterilisation of minerals reserves would help to protect important material assets.

Two actions, also under this theme, aim to promote sustainable waste management. The action to include policies within the LDP which require new development proposals to integrate intelligent waste management systems within the design process and another

action that all new development should offer adequate provision for the storage of multiple recycling bins including composting are forecast as likely to have a **significant** positive effect on this SA objective.

A couple of the actions under the theme '*sustainable economic development*' should have positive effects on sustainable use of natural resources. Encouraging tourism operators to achieve accredited status in term of environmental accreditation could help these organisations to reduce their use of finite resources. In addition, producing guidance for communities and enterprises on how to develop sustainable products should also help to reduce use of finite resources. Developing sustainable management of small scale woodlands to provide woodfuel could help to improve sustainable use of this fuel.

Many of the NPMP's other aims, objectives and actions are forecast as likely to have a neutral effect on this SA objective.

Experimenting with novel approaches to sustainable development is forecast to have uncertain effects on this SA objective. However, the aim may lead to the use of sustainable waste management and the use of secondary and recycled materials. The effects are dependent on the types of novel approaches taken forward in the Park.

Cumulative Effects:
Combined, the positive and significant positive effects forecast for the vision, aims, objectives and actions of the NPMP should have a positive effect on this SA objective.

Overall Assessment for the Objective:

+

Cross-Boundary Effects:
Facilitating long distance sustainable travel to the National Park is likely to increase the need for and/or use of transport facilities outside of the Park, i.e. in neighbouring and other local authorities in Wales and England.

Limiting minerals extraction within the Park could lead to increased extraction in other areas in order to maintain the provision of aggregates.

Interrelationships:
Encouraging sustainable waste management could have a positive effect on reducing greenhouse gas emissions, for example by reducing the levels of methane produced from landfill sites as less waste is disposed of in this manner.

7.3.13 Increase sustainable transport opportunities.

The NPMP is forecast as having positive effects on encouraging sustainable transport opportunities. The aim that sustainable transport initiatives which will enhance accessibility across the Park whilst reducing reliance on private motor vehicles could increase opportunities for residents and visitors to use more sustainable modes of transport and is therefore forecast as likely to have a **significant** positive effect on this objective.

The aim that local communities will establish collaborative projects for travel that maximise social, economic and environmental benefits for all should lead to the development of increased opportunities for sustainable travel.

The NPMP contains an aim and four strategic objectives aimed at improving access within the Park. These objectives could have a positive effect on encouraging sustainable transport opportunities, particularly by strategically managing the rights of way network and providing an integrated network of routes.

As a result of the objectives to reduce the direct and indirect production of greenhouse gas emissions by the Park's communities, sustainable transport opportunities could be encouraged which would have a positive effect on this SA objective.

The NPMP contains seven strategic objectives all aimed at increasing sustainable transport opportunities. Two of these objectives are forecast as likely to have **significant** positive effects on increasing sustainable transport opportunities. These objectives are reducing the need for travel by controlling the location and design of development; and facilitating sustainable long distance transport to the National Park.

The other strategic objectives aimed at increasing sustainable transport opportunities which are forecast as likely to have positive effects include:

- Provide an integrated transport system that encourages healthy and active lifestyles, and supports local communities;
- Encourage the development of new and existing services aimed at the visitor market;
- Work with transport generators on Green Travel Plans;
- Support working practices and behaviour change initiatives that reduce the Park's greenhouse gas emissions and reduce people's dependency on fossil fuels for transport; and
- Develop Sustainable Travel Marketing.

Ensuring that all National Park facilities and services can be enjoyed by all should ensure that these sites are accessible to those without access to a private vehicle. In addition, the NPMP aim to improve the accessibility of all development throughout the Park which may also have a positive effect on this objective. Increasing awareness of environmental sensitivity and sustainability issues could encourage increased use of more sustainable modes of transport.

Many of the actions, under the theme 'providing everyone with opportunities for outdoor access and *recreation'*, are forecast as likely to have positive effects on this SA objective, including:

- Continue to make progress towards raising the % of the public rights of way network that is easy to use to 65% by 2013;
- Continue to identify and implement circular and connecting routes with the network;
- Continue to identify and implement routes and sites where barriers for disabled people can be removed where reasonably practical;
- Continue to replace furniture as necessary using the principle of least restrictive option where reasonably practical;
- Continue to renew or replace waymarkers and fingerposts as necessary, improving information depicted on fingerposts wherever possible and appropriate;
- Provide more information in a variety of accessible formats;
- Identify information regarding public transport links to BBNPA promoted routes and incorporate into Authority publications; and
- Continue to negotiate additions to the access network through the Tir Gofal scheme and encourage partners to adequately publicise these additions.

In addition, many of the actions under the theme '*building sustainable communities, towns and villages*' are also forecast as likely to have a positive effect on sustainable transport opportunities in the Park. The following three actions are forecast as likely to have **significant** positive effects:

- Provide an affordable, accessible and effective sustainable transport network that meets the needs of residents and visitors;
- Develop and support by way of the Sustainable Development Fund community based sustainable transport initiatives designed to reduce the carbon footprint; and
- To develop a hierarchical sustainable settlement strategy, whereby the majority of future development is located in settlements well served by easily accessible services, facilities and access to public transport.

Other actions identified as likely to have positive effects include:

- Promote cycling as a means of everyday travel and develop safe cycle routes;
- Support projects which follow the principles of sustainability, i.e., a) social progress which recognises the needs of everyone, b) effective protection of the environment, c) prudent use of natural resources and d) maintenance of high and stable levels of economic growth and employment;
- Develop and support by way of the Sustainable Development Fund community based visitor transport initiatives including access to visitor "hot spots"; and
- Provide outreach programmes to local groups to increase awareness and use of local opportunities for recreation, reducing travel and associated carbon emissions.

Actions, under the theme '*sustainable economic development*', are also forecast as likely to have a positive effect on this SA objective. For example, the actions aim to encourage use of weekday public transport, to produce information of the available public transport and to develop a sustainable transport website.

Experimenting with novel approaches to sustainable development on NPA-owned lands may have a positive effect on encouraging sustainable transport should any of the approaches involve transport. However, due to uncertainty over the novel approaches to be taken the effect is considered to be uncertain.

The effect of the action establishing and developing the Visitor Transport Partnership is uncertain, as it unclear what role this organisation may take in encouraging sustainable transport opportunities within the Park. There also remains uncertainty of the effect of the action to promote and provide training in the concept of an 'accessible destination'. If this training covers the issue of sustainable transport then this may have a positive effect on this SA objective.

Cumulative Effects:
Combined the positive and significant positive effects forecast for the vision, aims, objectives and actions of the NPMP should have a positive effect on increasing sustainable transport opportunities.

Overall Assessment for the Objective:

+

Cross-Boundary Effects:
Encouraging sustainable travel to the Park could encourage the use of sustainable travel modes in other local authorities.

Interrelationships:
Encouraging the use of sustainable modes of transport may reduce the need for car travel in the Park thereby potentially leading to a reduction in greenhouse gas emissions and other pollutants which will help to mitigate climate change and improve local air quality.

Encouraging active travel could encourage the local community and visitors to live more healthy lifestyles.

Recommendations:
Encourage cycle hire initiatives which should help more visitors to cycle within the Park.

7.3.14 Maintain distinctive cultural identity and ensure the needs of the changing demographics are reflected

This SA objective is not well covered by the National Park vision. However, by aiming to manage the Park through active partnerships so that it continues to be a source of inspiration and enjoyment for future generations the vision is considered to be partly compatible by ensuring the needs of the changing demographic are reflected.

Encouraging local traditions, community events, and the Welsh language to flourish and evolve as part of a living culture should have a **significant** positive effect this SA objective by supporting the area's traditions and the Welsh language and letting these transform to reflect the needs of the changing demographic. The NPMP also contains a number of other aims which are forecast as likely to have a **significant** direct positive effect on this SA objective:

- The Park will be much-admired as a place to pursue healthy lifestyles, relaxation and spiritual renewal as "One of Britain's Breathing Spaces." This should help to encourage healthy lifestyles; and
- Good quality, well designed and sustainable affordable housing of all types will be accessible to the Park's communities. This should help to provide sufficient housing local people.

The NPMP contains seven other aims which are forecast as likely to have positive effects on this SA objective, including:

- The Park's people, Welsh heritage and rich economy will continue to thrive, supporting healthy communities and the environment whilst providing a welcome for visitors;
- The Park's communities will have pride in their place and a sense of ownership of the Park;
- Sustainable transport initiatives will enhance accessibility across the Park whilst reducing the reliance on private motor vehicles;
- The Park will be supported by an exemplar sustainable tourism industry which contributes to the public's enjoyment of the area's special qualities and to the local economy;
- Individuals will have access to employment opportunities and modern amenities appropriate to the context of the Park's purposes and duty;
- Local communities will establish collaborative projects for food production, income generation, energy generation and travel that maximise social, economic and environmental benefits for all; and
- All those with an interest in the Brecon Beacons National Park will understand and embrace the vision of this special place and work together to sustain it.

The NPMP contains six objectives specifically related to culture and traditions. The objective to promote the use of the Welsh language is forecast as likely to have a **significant** positive effect. The objectives to support and develop understanding and awareness of the Park's cultural life and traditions and promote cultural heritage as an attraction are forecast as likely to have a positive effect on maintaining cultural identity.

The NPMP objectives aiming to enhance the Park experience for all people; to manage the impacts of tourism; and to promote the Park as an exemplar of sustainable living

should all have positive effects on local communities. As should the objectives to maintain and encourage vitality and viability of the Park's communities and town centres.

The objective to provide an integrated transport system that encourages healthy and active lifestyles and supports local communities should have positive effects on this SA objective. Creating new community woodlands within easy access of local communities could also have positive effect on improving health and wellbeing of these communities.

The other strategic objectives which are forecast as likely to have positive effects include:

- Encourage partnership working between those involved in interpreting the National Park to ensure greater co-ordination and better use of limited resources;
- Strategically manage the rights of way network;
- Develop socially inclusive interpretation that is accessible to the intended audiences;
- Address and breakdown actual and perceptual barriers experienced by socially excluded groups;
- Ensure that all sectors of the Park's communities are able to contribute to development of, appreciate the benefits of, and play a part in the delivery of NPMP objectives;
- Invest in well researched, planned and coordinated product development based on the natural strengths and culture of the area;
- Prepare an LDP which is responsive to drivers of change and enables development to meet identified needs; and
- Provide a first class planning service.

NPMP actions, under the theme '*raising awareness and understanding of the Park*' are forecast as likely to have positive effects on this objective. Improving the bilingual delivery of interpretation, information and education should support the use of the Welsh language within the Park while supporting communities in telling their stories should help to support the area's local traditions.

Actions under the themes '*raising awareness and understanding of the Park*', '*providing everyone with opportunities for outdoor access and recreation*', and '*building and maintaining sustainable communities, towns and villages*' should help to promote inclusion of disadvantaged and minority groups into society and improve access to the Parks facilities for these groups. These actions include:

- Work with groups in promoting understanding and awareness for those not yet fully engaged, including identifying and breaking down barriers and working with advocates;
- Continue to develop and deliver the Social Inclusion Action Plan and related programmes to make people aware of the range of opportunities that are on offer in the NP and to help them understand and enjoy the area;
- Work with minority group representatives to raise awareness of and contributions to NP decision making and delivery of actions;
- Continue to identify and implement routes and sites where barriers for disabled people can be removed where reasonably practical;
- Assist in the coordination of the Disabled Access Steering Group to increase awareness and provision for people with disabilities and easier access requirements;
- Continue to deliver and monitor the Disability Equality Scheme and Action Plan;

- Increase the use of the NP by excluded groups through the delivery of social inclusion and outreach programmes (e.g. Crossing Park Boundaries);
- Continue to provide opportunities for improved health and wellbeing to excluded groups from within and beyond the Park boundary;
- Work with social inclusion projects in the Geopark to promote access by socially excluded groups; and
- Identify suitable areas for establishment of more dedicated car parking spaces for disabled people and implement.

Other actions under the themes '*providing everyone with opportunities for outdoor access and recreation*', '*building and maintaining sustainable communities, towns and villages*' and '*sustainable economic development*', such as continuing to identify and implement circular and connecting routes with the network, should also have positive effects on this objective by encouraging walking or cycling and encouraging healthy lifestyles.

Several actions under the theme '*building community pride and sense of place*' are forecast as likely to have a positive effect on this SA objective. For example, encouraging projects that promote local distinctiveness, a sense of community and a sense of place should help to maintain cultural identity and support local communities.

Actions under the theme '*building and maintaining sustainable communities, towns and villages*' which aim to provide a mix of dwelling types and to deliver affordable housing should help to provide sufficient housing for the needs of the local communities. These are forecast as likely to have **significant** positive effects on this SA objective. Actions, also under this theme to ensure the policies are included in the LDP which provide for employment land and viable retail centres should have positive effects on this SA objective.

Several actions under the theme '*sustainable economic development*' should progress this SA objective by promoting the use of local products, for example promoting the use of local food and seeking the views on increasing the number of farm shops. Engaging local communities through community appraisals, integrated quality management and social inclusion projects should help to promote community interactions that could improve social cohesion.

A number of the actions under the themes relating to biodiversity and landscape are likely to have a positive effect on local communities. For example, actions to engage with the public on environmental issues, such developing strong links with communities to progress local biodiversity actions, should promote community interactions and could encourage healthy lifestyles.

Cumulative Effects:
Combined, the positive and significant positive effects forecast for the vision, aims, objectives and actions of the NPMP should have a **significant** positive effect on this SA objective.

Overall Assessment for the Objective:

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Cross-Boundary Effects:

None identified.

Interrelationships:

Supporting and developing understanding and awareness of the Park's cultural life and traditions could have positive effects on the management of historical assets within the Park.

Improving the well-being of local residents could have positive effects on the local economy as they become more productive and dynamic in the work place.

7.3.15 Promote and improve accessibility to the Park and to its opportunities and facilities

The NPMP is forecast to have direct positive effects against this SA objective. Ensuring facilities, information and interpretation will exceed the expectations of users and provide everyone with equal opportunity to enjoy and understand the Park via an integrated network of routes is forecast as likely to have a **significant** positive effect on this SA objective. These aims should help to improve accessibility to the Park and its facilities. The NPMP's aim that individuals will have access to employment opportunities and modern amenities should improve access to facilitates within the Park.

The Park's aims to improve the management of woodlands and uplands could promote improved accessibility to these areas within the Park. The objective to creating new community woodlands within easy access of local communities could also have a positive effect on this SA objective.

Enhancing accessibility across the Park through sustainable transport initiatives should improve access to the Park's facilities for all and could encourage walking and cycling as an alternative mode of transport.

The NPMP contains several aims and objectives which aim to help people who the visit the Park have more awareness and understanding of the Park and its special qualities. These elements should have a positive effect this SA objective. The aim to improve provision of information on the Park online should have a positive effect by improving access to information for those who may not easily be able to visit the Park. Also the aim to provide socially inclusive interpretation should enable all users to gain access to information on the Park.

Experimenting with novel approaches to sustainable development on NPA-owned lands may have a positive effect on improving accessibility to the Park and its facilities. However, due to uncertainty over the novel approaches to be taken the effect is considered to be uncertain.

The NPMP contains five access and recreation strategic objectives which are forecast to have a direct positive effect on improving accessibility to the Park and its facilities. These objectives aim to:

- Strategically manage the rights of way network;
- Improve the provision of information with regard to public access;
- Make the best use of external funding and resource opportunities to improve public access;
- Improve access to and on water; and
- Work constructively with partners to reduce and resolve conflicts and improve access and recreation provision.

The NPMP contains seven transport related strategic objectives. The objective to provide an integrated transport system that encourages healthy and active lifestyles, and supports local communities should have a direct **significant** positive effect on improving accessibility to the Park by more sustainable modes of transport, such as walking and cycling. The other transport objectives should have a positive effect on this SA objective. These objectives include:

- Reduce the need for travel by controlling the location and design of development;
- Encourage the development of new and existing services aimed at the visitor market;

- Facilitate sustainable long distance transport to the National Park;
- Work with transport generators on Green Travel Plans;
- Support working practices and behaviour change initiatives that reduce the Park's greenhouse gas emissions and reduce people's dependency on fossil fuels for transport; and
- Develop Sustainable Travel Marketing.

Realising the full potential of the Monmouthshire and Brecon Canal could improve access along the canal, either by boat or along the tow path. Improving the visitor experience of Fforest Fawr, particularly by developing information and interpretation of its special qualities should have a **significant** positive effect on this SA objective. In addition, supporting sustainable tourism and other forms of sustainable economic development could have positive effects through promoting eco-tourism.

Finally, the NPMP strategic objective to improve the physical quality, energy efficiency, accessibility and sustainable design and construction of all development throughout the Park should have a positive effect on this SA objective.

Many of the actions under the theme '*raising awareness and understanding of the Park*' are forecast as likely to have positive effects on promoting and improving accessibility to the Park and its facilities. Several of these actions aim to improve information and interpretation at sites across the Park and to improve web-based information on the Park. These will help to improve access to information on the Park's qualities and should provide opportunities for people to come into contact with and appreciate the diversity of species, habitats, and ecosystems in the Park.

Actions within the NPMP to '*provide everyone with opportunities for outdoor access and education*' are forecast as having positive effects on this SA objective by promoting and improving accessibility to the Park and to its opportunities and facilities. For example, the actions aim to improve the rights of way network, to provide more information on available public transport services and to improve accessibility for disabled groups.

Under the theme '*building and maintaining sustainable communities, towns and villages*', several of the actions are forecast as likely to have positive effects on this SA objective. For example, actions to improve accessibility to the Geopark, to improve provide an affordable, accessible and effective sustainable transport network, and to develop a hierarchical settlement strategy that focuses development in areas well served by easily accessible services and facilities should progress this objective.

Many of the actions under the theme '*sustainable economic development*' are forecast as likely to have a positive effect on improving accessibility in the Park. The actions to improve the availability of web-based information on the Park should improve accessibility to information pre or post visiting the Park or for those who may not easily be able to visit the Park. Several of the actions under this theme which aim to improve sustainable transport in the Park for example by supporting the Brecon Bus, developing a Sustainable Transport website, and developing walks booklets linked to buses or trains should help to progress this objective.

Cumulative Effects:
Combined, the positive and significant positive effects forecast for the vision, aims, objectives and actions of the NPMP should have a positive effect on this SA objective.

Overall Assessment for the Objective:

+

Cross-Boundary Effects:
Improving access to the facilities in the Park could have an adverse effect on local authorities due to an increase in levels of through traffic travelling to the Park.

Interrelationships:
Improving access to the Park could lead to an increase in visitor numbers which could put pressure on its special qualities, i.e. biodiversity and landscape.

Increased visitor numbers is also likely to lead to increased greenhouse gas emissions and local air pollutants.

Recommendations:

Consider introducing road management guidelines that will ensure visitors know when they have entered the Park, i.e. to provide a distinction between roads within and outside of the Park.

7.3.16 Increase opportunities to build an education and skills base

The NPMP is forecast to have direct positive effects against this SA objective. The NPMP contains an aim that everyone will have abundant opportunities to learn about and experience the Park's special qualities and they will understand why this living landscape is an internationally important protected area and sustainable tourism destination. This should have **significant** positive on residents and visitors knowledge of the Park and its issues. The NPMP also contains several other aims and objectives aimed at improving peoples understanding of the Park's special qualities, including geodiversity, biodiversity, the historic and built environment and culture and traditions. These objectives should also have positive effects on this SA objective.

Using a mixture of industries, including farmers, small rural businesses and traditional land-use businesses to maximise the Park's economic potential could help to maintain these rural/traditional businesses thereby promoting education in the rural skills associated with them and helping to retain these skills within the Park's community. The NPMP also contains two objectives specifically related to farming which could have a positive effect on promoting education in rural skills, these are:

- Maintain and enhance viable and productive farming businesses within the uplands so that they are able to deliver private and public objectives to enhance the special qualities of the Park; and
- Develop communications and collaboration among land managers, statutory agencies, non-governmental organisations, communities and other interests.

Three of the NPMP's objectives aimed at upland management should have a positive effect on promoting education in rural skills. In particular, ensuring that uplands management is conducted through an integrated approach whilst utilising and developing local skills and knowledge should have direct positive effects.

The NPMP contains strategic objectives specifically related to promoting understanding and enjoyment of the Park, information, education and interpretation. Each of these objectives should have positive effects on building education and skills within the Park. The objectives relating to the Fforest Fawr Geo-park, which for example aim for the site to act as a focus for environmental/earth education, should also have positive effects on this objective.

Removing actual and perceived barriers experienced by socially excluded groups within the Park's communities could improve access to education and training for these groups. Allocating sufficient land for employment opportunities could have positive effects if this employment leads to an increase in skills training.

Supporting behaviour change initiatives linked to sustainable transport may promote climate change education.

Educating the MOD on responsible, sustainable and appropriate use of the Park and giving MOD personnel an opportunity to contribute to the Park's environmental conservation should have positive effects on this SA objective.

Experimenting with novel approaches to sustainable development on NPA-owned lands may have positive effects in relation to the promotion of rural skills education. However, due to uncertainty over the novel approaches to be taken the effect is considered to be uncertain.

Many of the actions under the theme '*raising awareness and understanding of the Park*' are forecast as likely to have positive effects on increasing opportunities to build an education and skills base. Actions which aim to improve information and interpretation at tourism facilities should help to increase education of visitors and residents in environmental and sustainability issues. The NPMP contains several actions aimed at improving interpretation within the Geopark and this should improve learning with regard to geodiversity within the Park. Other Geopark actions, for example, to implement an annual Geopark festival could also progress this objective.

The action to support and facilitate training and development of NPA staff, non NPA information Centre staff and tourism businesses to ensure first class welcome and interaction with residents and visitors will provide training for employees within the Park.

Under the theme '*building community pride and sense of place*', several of the actions are forecast as likely to have a positive effect on this SA objective. Promoting an increase in vocational training opportunities in local knowledge and skills should promote education in rural skills. In addition, working closely with partners to provide volunteer, workshadow and other skills programmes should also increase opportunities for training.

Actions under the theme '*building and maintaining sustainable communities, towns and villages*' which encourage community engagement with the Geopark could increase knowledge in geodiversity issues within community groups. Also under this theme actions to generate greater awareness in and understanding of environmental and sustainability issues should progress this SA objective.

Encouraging tourism operators and visitor facing public bodies to achieve accredited environmental status could improve education within these organisations with regard to environmental issues.

A number of the actions under the themes relating to biodiversity and landscape are likely to have a positive effect on education opportunities. For example, actions to engage with the public on environmental issues to increase awareness and understanding of sustainable management of the Park should improve knowledge of these issues. In addition, actions to engage with and provide management advice to landowners and support projects to retain skills and knowledge of local land management practices should also help to improve education in rural skills.

Cumulative Effects:
Combined the positive and significant positive effects forecast for the vision, aims, objectives and actions of the NPMP should have a positive effect on this SA objective.

Overall Assessment for the Objective:

+

Cross-Boundary Effects:
None identified.

Interrelationships:
By improving understanding of the Park's special qualities this should have a positive effect on the protection of the Park's biodiversity, geodiversity, landscapes and historic features as visitors and communities will be more aware of its importance.

Increasing education in rural skills should help to provide for a sustainable agricultural economy by providing more skilled farmers.

7.3.17 Promote a thriving, locally-based economy

The NPMP is forecast as having direct positive effects on the local economy. The vision for the Park to be a living landscape where people can earn a living from the land in an innovative and sustainable manner and to be less dependent on external supply chains is compatible with promoting a thriving locally-based economy.

The aim that the Park's people, Welsh heritage and rich economy will continue to thrive, supporting healthy communities and the environment whilst providing a welcome for visitors should have a **significant** positive effect on this SA objective. In addition, providing individuals with access to employment opportunities should also have positive effects.

A number of the Park's aims and objectives seek to protect and promote traditional farming practices. These should have positive effects on promoting a thriving, locally-based economy within the Park. For example, the NPMP contains an aim that the traditional pattern of farmed land and its characteristic, historic features and habitats will be conserved and enhanced, providing the basis for a thriving agricultural economy.

Aiming for local communities to adopt new approaches to local food production through market gardening could also have positive effects on this SA objective through encouraging use of local products and supporting the local agricultural economy. The objective to maintain and enhance viable and productive farming businesses within the uplands so that they are able to deliver private and public objectives to enhance the special qualities of the Park should have **significant** positive effects on promoting a sustainable agricultural economy in the Park.

Integrating effective biodiversity conservation into economically viable agricultural and arboricultural systems should help to provide a sustainable farming economy within the Park. In addition, seeking to solve environmental challenges which integrate biodiversity conservation with education, interpretation, other resource management priorities, and social, economic and cultural sustainability could also have positive effects on the local economy.

The aim to manage forests at higher elevations to maintain a sound commercial presence should contribute to the rural economy. In addition, improving the management of upland areas should also have positive on this objective. The upland management objectives which are forecast as likely to have positive effects include:

- Maximise the opportunities for diversifying the economy through integrated land management skills and services;
- Demonstrate integrated, sustainable landscape scale conservation on NPA-owned land by securing large scale, long term funded projects across the Park; and
- Ensure that uplands management is conducted through an integrated approach whilst utilising and developing local skills and knowledge.

A number of the Park's aims seek to encourage sustainable tourism. These aims should have positive effects on promoting a thriving, locally-based economy within the Park, for example, the NPMP contains the aim that people will come to the Park to enjoy a wide range of sustainable activities. Another aim states that the Park will be supported by an exemplar sustainable tourism industry which contributes to the public's enjoyment of the area's special qualities and to the local economy. This specific aim has been forecast as likely to have a **significant** positive effect on this SA objective.

The NPMP contains eight strategic objectives specifically related to sustainable tourism. One of these objectives, to enhance the National Park experience for all people,

residents and visitors alike, should have a **significant** positive effect. The other sustainable tourism objectives should have positive effects, these include:

- Invest in well researched, planned and coordinated product development based on the natural strengths and culture of the area;
- Continue to improve the understanding of tourism trends, market behaviour and the business of tourism in and around the National Park;
- Refine the tourism organisational structure to help create a stronger partnership approach involving all key stakeholders;
- Encourage collaborative marketing activities based upon the Brecon Beacons brand;
- Manage the impacts of tourism;
- Promote the National Park as an exemplar of sustainable living; and
- Realise fully the tourism potential of the Monmouthshire and Brecon Canal whilst its attractive setting is conserved and enhanced.

Many of the NPMP's objectives related to promoting understanding and enjoyment of the Park and the provision of information should have positive effects on this objective by improving the visitor experience in the Park. Although, providing a first class visitor experience should have a **significant** positive effect on this SA objective.

The objectives relating to the Fforest Fawr Geopark are also considered likely to have positive effects on the local economy as they could increase visitor numbers. Encouraging the development of new and existing transport services aimed at visitors and facilitating long distance transport to the Park could also increase visitor numbers. Increasing the number of visitors should support tourism industry within the Park.

Allowing local traditions, community events and the Welsh language to flourish and evolve should help to maintain local distinctiveness thereby helping to promote the tourism industry within the Park.

Preparing the Park's communities for climate change and fossil fuel depletion should have positive effects on the local economy, particularly in the long term when the effects of climate change, such as increased likelihood of flooding, are more likely to be felt.

Allocating land for employment should help to provide good quality employment opportunities for the local community. Also, maintaining and encouraging the vitality and viability of the Park's communities and town centres should help to provide local employment opportunities and could encourage the use of local products and services.

Actions under the theme '*raising awareness and understanding of the Park*' which aim to support and facilitate staff training to ensure a first class welcome and interaction with residents and visitors should support a flourishing and tourism industry in the Park.

Several actions under the themes '*building community pride and sense of place*' and '*conserving and enhancing biodiversity*' are forecast as having positive effects on this SA objective. The following actions should help to support a sustainable agricultural economy in the Park:

- Promoting an increase in vocational training opportunities in local knowledge and skills, such as traditional farming and land management skills; and
- Working with rural communities to establish a mechanism for them to promote their local areas.

Working with partners to provide volunteer, workshadow and other skills programmes should help to support the local economy.

Actions under the theme '*building and maintaining sustainable communities, towns and villages'* and '*conserving and enhancing biodiversity*' encourage the use of local products

and services thereby having positive effects on this objective. Other actions forecast as likely to progress this SA objective, include:

- Through the LDP process identify the requirement for development to serve employment needs within the National Park and make provision through the appropriate allocation of land;
- Working with economic development partners to address implementation of Brecon Regeneration Study and work arising from Ystradgynlais Regeneration Study where it affects areas within the Park; and
- Undertake retail study as part of LDP process to gain a further understanding of pressures facing our town centres and develop resultant policies which seek to create vital and viable retail centres.

The majority of NPMP actions under the theme '*sustainable economic development*' are forecast as likely to have positive effects on promoting a thriving, locally-based economy in the Park as these actions, for example, aim to support local goods and services, to support and promote sustainable tourism and to support the development Geopark.

Several actions under the theme '*managing Park landscapes to maximise conservation and public benefits*' are forecast as having positive effects on this SA objective, these include:

- Liaise with partners on the reform of rural support measures within the Common Agricultural Policy to enhance the delivery of public benefits within the countryside, particularly with regards to the needs for specific schemes designed for commons;
- Develop a work plan and prioritise activities for each integrated landscape management area, including consideration of sustainable grazing and farming systems, historic environment, landscape components, carbon and energy and water-catchment planning; and
- Maintain economically viable coniferous forests in appropriate areas whilst integrating these into the existing landscape through the use of sustainable forest design principles.

Cumulative Effects:
Combined the positive and significant positive effects forecast for the vision, aims, objectives and actions of the NPMP should have a positive effect on this SA objective.

Overall Assessment for the Objective:

+

Cross-Boundary Effects:
Providing employment opportunities within the Park may provide jobs for communities located outside of the area.

Interrelationships:
Providing employment opportunities within the Park could help to improve the well-being of local residents and promote the retention of young people within the Park.

Increasing levels of tourism within the Park will put pressure on the environmental resources within the Park, including water, biodiversity and landscapes. There is also potential for impacts on light pollution and tranquillity due increased visitor numbers and increased facilities.

Recommendations:
Encourage reduced seasonal tourism in the Park to increase year round job opportunities.

Recent research has shown that if successful policies to promote healthy eating may lead to significant changes in agricultural regimes and land use patterns. The NPMP should consider the potential implications of these findings on the Park[35].

7.4 Difficulties encountered in undertaking the assessment

Many of the aims and strategic objectives with the NPMP were difficult to assess within the SA as they are at a high level and contain little spatial detail against which a meaningful assessment can be made. This is consistent with the nature of the NPMP and as a result means that SA/SEA should be undertaken of more detailed implementation plans as and when there are developed.

7.5 How the SA/SEA has influenced the development of the NPMP

To date the SA/SEA has had a range of influences on the development of the NPMP, and with the SA/SEA process continuing beyond the production of this SA Report the SA/SEA will continue to provide influence. Close liaison between the planning officers and SA/SEA consultants has meant that the SA/SEA has provided input at several stages during the development of the NPMP document.

When the NPMP is adopted it will be accompanied by an SA Adoption Statement which will need to describe how the NPMP has been influenced by the SA/SEA. Influences to date include the following:

- Production of the SA/SEA Scoping Report identified issues that the NPMP will need to help address. The information within the Scoping Report will also contribute to the NPMP evidence base;
- A Scoping Workshop attended by NPA planning officers, members of environmental bodies (CCW and EAW) and SEA and HRA consultants, provided a useful forum for discussing environmental issues and how the NPMP could respond to these issues. The workshop also helped in determining the scope of the SA/SEA and HRA processes;
- Provision of input into the development of the NPMP vision, aims, strategic objectives and actions; and
- Assessment of the draft NPMP during its preparation.

[35] RELU (2009) Implications of a Nutrition Driven Food Policy for the Countryside http://www.relu.ac.uk/news/policy%20and%20practice%20notes/PPN6%20Traill.pdf

8 Monitoring

8.1 Introduction

The SEA Directive requires monitoring of the significant environmental effects of the plan. A monitoring system will need to be designed to fulfil the following requirements:

- To monitor the significant effects of the plan;
- To monitor any unforeseen effects of the plan;
- To ensure that action can be taken to reduce / offset the significant effects of the plan; and
- To provide baseline data for the next SEA and to provide a picture of how the environment / sustainability criteria of the area are evolving.

8.2 Monitoring Measures

The monitoring requirements typically associated with the SA/SEA process are recognised as placing heavy demands on authorities with SA/SEA responsibilities. For this reason, it is proposed that the monitoring framework will focus on those aspects of the environment that are likely to be significantly impacted upon, or where the impact is uncertain.

The assessment of the NPMP identified no significant adverse effects on the SA/SEA objectives; however it identified significant positive effects for each of the 17 SA objectives which will be need to monitored.

Potential monitoring indicators for each of the SA/SEA objectives were highlighted previously in Table 5-2. The final monitoring plan will be published in the SA/SEA Statement, alongside the adopted NPMP.

The NPA will be undertaking monitoring of the NPMP in order to assess whether the desired outcomes of the Plan have been achieved or whether they have exacerbated issues which the Plan had set out to resolve. This monitoring will be undertaken through:

- Annual reports summarising progress being made towards the NPMP actions;
- The statutory, five year review of the NPMP and SEA objectives; and
- Periodic monitoring of the state of the Park's resources, published in the State of the Park Report.

Monitoring of the SEA/SA, including monitoring of the significant effects and monitoring of the SA objectives, will be incorporated into the overall NPMP monitoring programme.

9 Next Steps

9.1 Consultation on the SA Report

This SA Report will be published for consultation alongside the draft NPMP in July 2009.

Copies of the documents are available for public inspection free of charge at BBNPA, Plas y Ffynnon, Cambrian Way, Brecon, Powys, LD3 7HP from Monday to Friday 10am to 4pm and are available on the Authority's website at www.breconbeacons.org. They are also available at the Abergavenny, Brecon, Llandovery and Pontneddfechan National Park & Tourist Information Centres during their normal opening hours, and at the following Libraries during their normal opening hours:

Aberdare Central, Abergavenny, Abersychan, Ammanford, Blaenavon, Brecon, Brynaman, Brynmawr, Crickhowell, Dowlais, Ebbw Vale, Gilwern, Hay on Wye, Hirwaun, Llandovery, Llandeilo, Merthyr Tydfil Central, Pontypool, Rhymney, Talgarth, Tredegar, Ystrad Mynach, and Ystradgynlais.

Comments on the SA Report should be sent in writing to the **National Park Management Plan Officer** at BBNPA or made on-line to enquiries@breconbeacons.org **by 14th September 2009**. Representations (*including objections*) should specify the matters to which they relate.

A form for making representations is available from the above address or on-line at www.breconbeacons.org.

When the consultation period has finished, the comments received will be considered during the preparation of the final NPMP.

9.2 SA Adoption Statement

When the NPMP is adopted it will be accompanied by a SA Adoption Statement. In line with the SEA Regulations, the SA Adoption Statement will provide the following information:

- How environmental considerations have been integrated into the plan;
- How the SA Report has been taken into account;
- How opinions expressed in relation to the consultations on the plan/ programme and SA Report have been taken into account;
- The reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with; and
- The measures that are to be taken to monitor the significant environmental effects of the implementation of the plan or programme.