

**REPORT OF THE CONSERVATION POLICY OFFICER**

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**SUBJECT: NATIONAL PARK MANAGEMENT PLAN – INTERIM CHANGE REPORT**

Purpose of Report

This report summarises progress and change relating to the National Park Management Plan 2009-2013, including updates to 'state of the Park' information. It is intended as a background paper which will influence the development of the next National Park Management Plan (2014-2018). This report is also intended to provide context to the NPA's corporate plan.

An early version of this report was considered and endorsed by the Audit and Corporate Services Review Committee at its meeting of 26<sup>th</sup> October 2011. Since that meeting there have been a number of additions and updates to the report.

Structure of the report

The report sections are as follows:

1. Landscape quality
2. Tranquillity
3. Seascape quality
4. Nature conservation on land
5. Nature conservation in the marine environment
6. Climate change and energy security
7. Air quality
8. Water resources and quality
9. Geodiversity
10. Cultural heritage
11. Enjoying the National Park
12. Understanding the National Park
13. Fostering socio-economic wellbeing in pursuit of the purposes
14. Conclusion

While Climate Change, Understanding and the NPA's socio-economic duty have separate headings, they are also themes which run through other sections in this report.

**1. Landscape quality**

*Landscape and the policy framework*

The Management Plan aims to achieve a healthy and functioning National Park landscape and the myriad social and economic benefits which accrue from it. The Management Plan's headline policy for landscape is only achievable through of all other policies in the Management Plan - for wildlife, heritage, and so on. The landscape section of the Management Plan is

complemented by the Pembrokeshire Coast National Park Landscape Character Assessment Study, which was commissioned by the NPA in 2006 and adopted as Supplementary Planning Guidance to the LDP in June 2011.

### The 'Living Wales' programme

In autumn 2010, Welsh Government proposed a Natural Environment Framework - the *Living Wales* programme - for management of Wales' landmass and seas. An initial consultation by Welsh Government on the programme set out a management and regulatory approach based on the principles of ecosystem health and productivity.

As part of the process, Welsh Government is currently consulting on a Green Paper on a new approach to natural resource management in Wales: *Sustaining a Living Wales*<sup>1</sup>. The Green Paper seeks views on specific proposals for potentially fundamental changes for the governance and delivery of the environmental management and regulation in Wales. This work will inform the Welsh Government's legislative programme - in particular the Environment Bill planned for 2014-15, and the proposed Planning Bill scheduled for 2015/16.

National Park purposes and the Management Plan's aims are entirely consistent with the emerging principles of the *Living Wales* programme. In particular, the Green Paper discusses the merits of adopting resource management plans at national and local levels; such an approach would entirely fit with the NPA's approach to National Park management planning<sup>2</sup>.

National Park purposes and Management Plan aims are likely to be further supported by the proposed Sustainable Development (Wales) Bill. This is expected to provide for the establishment of an independent body to embed sustainable development as the central organising principle across Welsh Government and all public bodies in Wales.

### The National Ecosystem Assessment

A UK *National Ecosystem Assessment*<sup>3</sup> was published in 2011. This assessed the state and functioning of the natural processes that underpin human welfare in the UK. One finding was that biodiversity and ecosystems tend to be discounted by conventional economic analysis. Accordingly, a legitimate role for the *Living Wales* programme would be to provide a unifying banner for Welsh economic policy, as well as for conservation, by basing it on a truly sustainable use of Wales' natural assets.<sup>4</sup>

The *National Ecosystem Assessment* sets up six different policy scenarios for the UK, against a backdrop of declining global resources and the UK population's age profile. Only one of these scenarios (called 'Nature at Work') is truly effective in terms of maximising human well-being and capacity for

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<sup>1</sup> Officers' proposed response to the Green Paper is also being considered at the National Park Authority meeting of the 28<sup>th</sup> March.

<sup>2</sup> A report published recently by the Rural Economy and Land Use Programme makes a case for giving national parks a third purpose, in order to strengthen their strategic role in natural resource management:

[http://www.relu.ac.uk/news/policy%20and%20practice%20notes/33%20Carroll/13549%20RELU%20PP33\\_WEB.pdf](http://www.relu.ac.uk/news/policy%20and%20practice%20notes/33%20Carroll/13549%20RELU%20PP33_WEB.pdf)

<sup>3</sup> <http://uknea.unep-wcmc.org/>

<sup>4</sup> Similar messages have been promoted by the Campaign for Protection of Rural Wales and by Natur, the Welsh conservation management institute.

adaptation, and minimising ecological footprint. The 'Nature at Work' scenario implies one of the strongest regulatory/intervention roles in managing public goods. Significantly for protected areas, this scenario is founded on the idea of multifunctional landscapes and high regard for the environment.

The *National Ecosystem Assessment* therefore provides more evidence of the importance of managing natural resources better, and of the importance of protected areas.

## 2. Tranquillity and dark skies

Everyone has their own idea of what tranquillity means, but it usually implies a sense of distance from roads, from built-up areas and/or from people. Semi-natural habitats or 'wilderness' add to the impression of tranquillity, so remoteness and tranquillity are often, but not necessarily, found together.

### Wales Tranquil Areas Report

In 2009 the Countryside Council for Wales received an updated *Wales Tranquil Areas Report*, prepared by Land Use Consultants. The report was partly a response to a monitoring requirement in the *Environment Strategy for Wales* (2008-2011) which recognises the importance of tranquil areas. The project follows the same methodology as a 1997 Wales Tranquil Areas Map so the two mapping exercises are comparable.

The 2009 report also includes information on dark night skies, although this is based on satellite data from 2000.

In 2009, the total amount of Tranquil Area in Wales was around 11,600km<sup>2</sup> (~55% of Wales' land area). This is a reduction from 1997 of nearly 1,500km<sup>2</sup> (more than 6% of Wales' land area - an area greater than Brecon Beacons National Park). Tranquil area loss in Pembrokeshire is 5.47%, i.e. comparable to the all-Wales figure.

### *Changes in tranquillity status (km<sup>2</sup> and %): Pembrokeshire*

Zone	1997		2009		Change from 1997
<b>Significantly disturbed*</b>	279.01	16.91%	315.27	19.10%	<b>+12.95%</b>
<b>Somewhat disturbed**</b>	309.46	18.75%	348.98	21.15%	<b>+12.8%</b>
<b>Total disturbed area</b>	588.46	35.66%	664.25	40.25%	<b>+12.87%</b>
<b>Tranquil***</b>	1043.04	63.21%	985.96	59.75%	<b>-5.47%</b>
No data	18.71	1.13%	NA	NA	NA
Total	1650.21	100%	1650.21	100%	NA

Land Use Consultants, 2009

\***Significantly disturbed:** Countryside subject to significant traffic intrusion and other equivalent disturbance

\*\***Somewhat disturbed:** This land would fit within the broad English definition of tranquillity, but is not deemed fully tranquil by Welsh standards. Countryside somewhat disturbed by light traffic noise, small settlements, etc.

\*\*\***Tranquil:** Countryside usually free of any substantial disturbance in daytime. Significant intermittent aircraft noise can occur.

Changes in tranquillity status for National Landscape Character Areas (NLCAs) in Pembrokeshire are also given in the report. While the coastal and Preseli NLCAs approximately reflect the National Park boundary, the 'Milford Haven' landscape unit encompasses a large non-Park area around the

Waterway and Cleddau Rivers, including Haverfordwest and large industry on the Haven. The Milford Haven unit shows a 26% loss of tranquil area, and corresponding 17% increase in disturbed area, in the period 1997-2009<sup>5</sup>. The changes for all areas are given below.

*Changes in tranquillity status: National Landscape Character Areas*

<b>NLCA</b>	<b>Zone</b>	<b>Change from 1997-2009</b>
<b>South Pembrokeshire Coast</b>	Total disturbed area	+6.89%
	Tranquil area	-0.88%
<b>West and North Pembrokeshire Coast</b>	Total disturbed area	+23.34%
	Tranquil area	-6.16%
<b>Milford Haven</b>	Total disturbed area	+17.4%
	Tranquil area	-26.25%
<b>Preseli Hills</b>	Total disturbed area	+42.54%
	Tranquil area	-4.4%

Land Use Consultants, 2009

### 3. Seascape quality

The *Wales Tranquil Areas Report* is confined to land, but includes a map showing areas which have been identified (in LandMap) as being of high or outstanding visual quality, which are also generally tranquil, and from which the sea is visible. Much of the western and northern coastline of the National Park, including the islands, a considerable area in the Preseli Hills, and some of the Castlemartin Coast is classified in this way.

*A manifesto for seascapes*

Europarc Atlantic Isles and various partner organisations have been pushing for increased recognition of seascapes amongst policy-makers, in particular through a manifesto for seascapes which was published in 2011. This adapts the European Landscape Convention's<sup>6</sup> definition of landscape to cover seascapes. Capitalising on the development of UK marine spatial plans (under the Marine and Coastal Access Act 2009), Europarc Atlantic Isles calls on the governments, agencies and authorities to recognise, promote and protect coastal character through the marine planning process. Where important seascapes lie adjacent to protected landscapes, the manifesto urges relevant agencies and authorities to extend the coverage of their management plans to encompass seascape considerations (including visual character, conservation and recreational value).

However, if defining a landscape boundary is difficult, defining a seascape seems even harder, since marine protected areas (which may be protected for spawning fish, benthic habitats, wreck sites and so on) do not necessarily trace out any obvious "visual envelope" above water. Similarly, an obvious visual envelope above water does not necessarily reflect significant features below.

In practical terms, much of what partners can achieve for seascape protection is going to depend on the nature of Welsh Government's national plans for the

<sup>5</sup> Implies that this was 55% disturbed/45% tranquil in 1997

<sup>6</sup> The European Landscape Convention (signed and ratified by UK Government in 2006) applies to the entire territory of the Parties, and includes land, inland water and marine areas.

Welsh inshore area and offshore areas, and funding for their delivery. The plans are scheduled for adoption by 2012/13<sup>7</sup>. Natural England's UK-level guidance on seascape character assessment is expected in 2012; meanwhile, some large marine development proposals are underway. The proposed RWE npower renewables Atlantic Array windfarm (of up to 1,500MW capacity) for example will lie 16km from the South Wales coast at the nearest point; an application to the Infrastructure Planning Commission is anticipated later in 2012, with the first electricity generation scheduled for 2016.

In terms of marine conservation management, a key delivery mechanism is already in place, in the form of the management schemes for the European marine sites adjacent to the National Park, and the relevant authority groups which help deliver them. (These are covered in 5 below.)

#### **4. Nature conservation on land**

##### *The State of Wildlife in Pembrokeshire*

Review by the Pembrokeshire Biodiversity Partnership in 2011 of the *State of Wildlife in Pembrokeshire*<sup>8</sup> describes a continued overall decline in the quality and conservation status of some of the National Park's signature habitats and species, such as traditional grassland and farmland birds, and also of once-common species, such as the starling. However, the report also celebrates numerous successes, such as the condition of certain heathland and coastal slopes sites. The NPA's *Conserving the Park* initiative and the National Trust's *Pembrokeshire Heathland Beef* project are highlighted by the report as key contributors in this regard.

Sites on which conservation-minded public and private sector partners have management influence continue to be amongst the UK's greatest conservation success stories and some of the last bastions of wildlife. That PCNPA and its partners have been able to secure biodiversity gains on managed sites in the face of national declines is testament to the necessity and effectiveness of management on those sites; as one example, breeding kestrels in Pembrokeshire have now almost completely retreated to the coast as the overall area suitable for them has reduced inland.

##### *Habitat and species monitoring*

Species populations, and the factors affecting them, are inherently dynamic, which can make it difficult to ascribe any particular population change to any given factor. For this reason the NPA has led and/or been closely involved with long-term monitoring of a number of key species and the factors affecting them, in order to determine the impact of various influences and to gauge the effectiveness of conservation policy and action in the round. Monitoring contributes to wider effort across the region, in which the West Wales Biodiversity Information Centre performs a vital collation and analysis role.

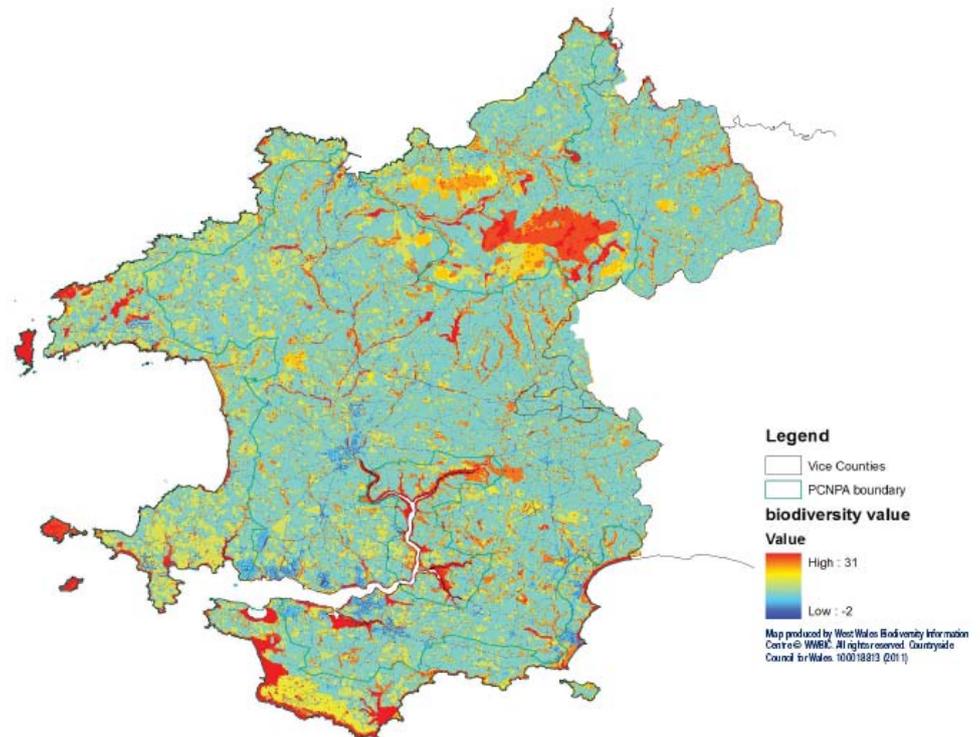
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<sup>7</sup> England has begun work on marine plans for the East Inshore and Offshore areas, while Scotland intends to produce a national marine plan and a number of regional marine plans. In Northern Ireland the development of marine planning is still dependent on primary legislation being passed by the Northern Ireland Assembly.

<sup>8</sup> <http://www.pembrokeshire.gov.uk/content.asp?id=22546&d1=0>

The NPA commissioned county-wide conservation value data layers from the West Wales Biodiversity Information Centre in 2010. The layers can be superimposed to indicate the value and connectivity of the countryside according to habitat cover and designation, based on 2m x 2m squares. As one might expect, land management outside the Park has significant influence on Park wildlife. The importance of stream and river corridors, for example, is visible even at large scale.

### Biodiversity value – Pembrokeshire



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### The Conserving the Park programme

Based on Countryside Council for Wales data, we estimate that approximately 48% (29,500 ha) of the National Park is improved grassland and 11% (6,500 ha) is arable. Accordingly, agricultural uses are probably the biggest single factor affecting wildlife in the Park, for better and for worse: “for better” in that much of our familiar and well-loved wildlife has adapted alongside traditional pastoral patterns of management, and is, so to speak, a cultural imprint of historic ways of life; “for worse” in that policy and market forces have profoundly altered our relationship with the countryside since the Second World War. In particular, policy and market forces have driven out much of what agricultural markets deem to be inefficient - which often includes the time and space for wildlife to co-exist with food production.

In terms of nature conservation, PCNPA is active on some 180 sites covering around 1,500 hectares. This includes management agreement sites, woodlands brought into management through the NPA’s partnership with Coed Cymru, NPA-owned sites and Pembrokeshire Grazing Network sites. These tailored initiatives are entirely complementary to the Tir Gofal/Glastir

agri-environment schemes, and form PCNPA's *Conserving the Park* programme. *Conserving the Park* also forms the core of our contribution to delivery of the Local Biodiversity Action Plan for Pembrokeshire, for conservation of locally-, nationally-, and internationally-important habitats and species.

However, there still remains a significant area of land within the Park on which the NPA could gain conservation management influence. The NPA's corporate plan aims to achieve a 5% increase in land managed for conservation, in partnership with the NPA, by 2013. The simplest and most effective way to increase the scope and depth of our influence to date has been to gradually expand the tried and tested elements of the conservation programme already in place. This remains our preferred approach, and we have an excellent track record of delivery, and valuable and established relationships with landowners and partner organisations. The NPA's recent organisational restructuring intends to build on these successes by enabling more staff-time to be assigned to conservation delivery.

The biodiversity value map above shows how the state of the Park's wildlife may be affected by land management further afield. Accordingly there is scope to contribute directly to Park purposes by extending elements of *Conserving the Park* outside the Park area. In fact, some elements of the scheme already operate across the Park boundary; for example the Pembrokeshire Grazing Network, initiated by the NPA, is county-wide.

#### Agri-environment scheme resourcing

Patterns of global supply and demand are pushing up commodity prices, and dedicating land to agricultural production is again becoming a financially attractive alternative to agri-environment schemes. Agri-environment scheme payments may therefore have to increase if the schemes are to achieve the desired take-up. 2013 sees the transition from Tir Gofal to Glastir, and, to date, approximately 1,700 holdings have signed up to Glastir across Wales, compared to 3,000 currently in Tir Gofal.

PCNPA's annual conservation budget is relatively small compared to wider agricultural support; we are therefore proud of the impact that our work has, not just in terms of biodiversity gain but also in terms of providing an adjunct to small-scale farm incomes and enriching people's experience of the National Park landscape.

## **5. Nature conservation in the marine environment**

### The marine policy framework

Although the National Park extends only to mean low water mark, it is a nevertheless a maritime Park. The legislative and policy context for marine management and conservation is changing as sections of the Marine and Coastal Access Act 2009 are implemented.

Welsh Government ministers constitute the marine planning authority for devolved matters in Wales, responsible for marine spatial planning, and have powers to regulate sea fisheries in Welsh waters through statutory instruments

made by Welsh Ministers under powers from primary legislation<sup>9</sup>. Ministers also have powers to create Highly Protected Marine Conservation Zones, and to license certain marine activities within a more streamlined consents system.

In 2011, a UK-wide Marine Policy Statement was published. This provides a framework for marine planning, and has been adopted by UK government and the devolved administrations. Welsh Government proposes two marine plans for Wales, for the offshore and inshore areas, integrated along their seaward boundaries with neighbouring UK plans and with terrestrial (local development) plans at Mean High Water.

In 2008, Welsh Government launched the Wales Fisheries Strategy, which aims to support the development of viable and sustainable fisheries in Wales, and covers aquaculture, commercial fisheries and recreational fisheries. Delivery of the strategy is through implementation plans for each sector. The implementation plans were published in 2009 and reviewed in 2011; the revised plans are due for publication in 2012.

### Marine protected areas

The NPA sits (as a Welsh Local Government Association representative) on the Wales Marine Conservation Zone Project Steering Group, and site selection for Highly Protected Marine Conservation Zones (MCZs) is underway. Concern has however been expressed that the number and overall area of the MCZs will be insufficient for them to achieve their role as a core component of the wider (UK) marine protected area network, or of the ecosystem approach envisaged by Welsh Government's *Living Wales* programme. There is also some concern that sectoral interests may be able to veto MCZ designation (this was the barrier to implementing meaningful Marine Nature Reserve protection at Skomer under the Wildlife and Countryside Act 1981, as amended).

The marine Special Area of Conservation management schemes referred to earlier in this report are the Pembrokeshire Marine SAC management scheme (published 2008<sup>10</sup>), Carmarthen Bay and Estuaries European Marine Sites management scheme<sup>11</sup> (2012), and Cardigan Bay SAC management scheme<sup>12</sup>. The latter has been in place since 2001 and has been amended to reflect the six additional conservation features designated since.

Three major considerations emerge from the marine SAC management schemes, at least as far as impacts on the National Park's special qualities are concerned. These are, firstly, fisheries management (as noted, Welsh Government now has fisheries responsibility, which extends out to the median line with Ireland); secondly, development - especially marine energy and associated transmission/landfall infrastructure, and thirdly the management of recreational craft and use of the foreshore.

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<sup>9</sup> Welsh Government assumed the responsibilities of the South Wales Sea Fisheries Committee in April 2010

<sup>10</sup> <http://www.pembrokeshiremarinesac.org.uk/english/downloads/sitemandoc.htm>

<sup>11</sup> <http://english.cbeems.org/management/management-scheme/>

<sup>12</sup> [http://www.cardiganbaysac.org.uk/pdf%20files/Cardigan\\_Bay\\_SAC\\_Management\\_Scheme\\_2008.pdf](http://www.cardiganbaysac.org.uk/pdf%20files/Cardigan_Bay_SAC_Management_Scheme_2008.pdf)

In 2011 Wales Environment Link - an umbrella body for environmental and countryside non-governmental organisations in Wales – published a report on *The Use of Voluntary Management in the Protection of UK Marine Biodiversity*<sup>13</sup>. The report evaluates the successes and failures of voluntary approaches to marine conservation using case studies from around the UK, including the Pembrokeshire Marine Code. Key findings of the report are that voluntary initiatives driven by a statutory body in place of statutory management tools have generally not been successful, and that voluntary management is unlikely to be an appropriate approach to controlling damaging activities for sensitive features within MPAs. The report therefore sends a clear message regarding the limited effectiveness of non-statutory approaches to achieving marine conservation objectives.

## 6. Climate change and energy security

### Emissions reduction targets

To avoid the impacts of climate change becoming too severe to handle, nations need to reduce greenhouse gas concentrations in the atmosphere to a level which avoids “dangerous climate change”. The EU has set a target to limit global mean surface temperature rise to 2°C above pre-industrial levels, based on the knowledge that temperature increases of more than 2°C will result in very costly adaptation measures, huge impacts on water availability, food security and ecosystems and unacceptably high risks of irreversible events, such as the melting of the Greenland ice sheet.

The Welsh Government’s *Climate Change Strategy for Wales*<sup>14</sup> (2011) restates its intention to reduce greenhouse gas emissions in areas of devolved competence by 3% per year from 2011, against a baseline of the average emissions between 2006 and 2010<sup>15</sup>. Welsh Government has also committed to reduce greenhouse gas emissions in Wales by 40% by 2020 (on a 1990 baseline), and reported in 2011 that Wales’ total greenhouse gas emissions had reduced by 23.3% compared to that 1990 baseline. Greenhouse gas reductions since 2008 are partly attributable to the recession.

Wales produced 7.6% of the UK’s total net greenhouse gas emissions in 2009; in turn, the UK accounts for 2% of global greenhouse gas emissions, and, despite reductions at the UK level, global greenhouse gas emissions are increasing<sup>16</sup>. This puts the world on course for the medium, or even high, emission scenario (first graph below) with associated temperature changes shown in the second graph.

Due to past emissions, climatic changes for the next three decades cannot now be avoided. That is why we will need to adapt to climate change even as we seek to change its future course.

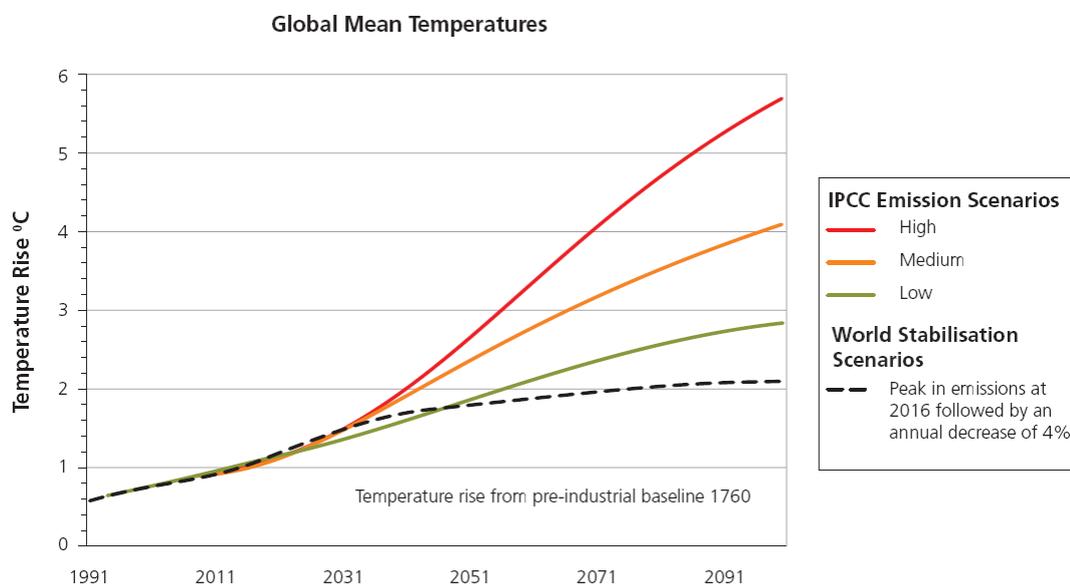
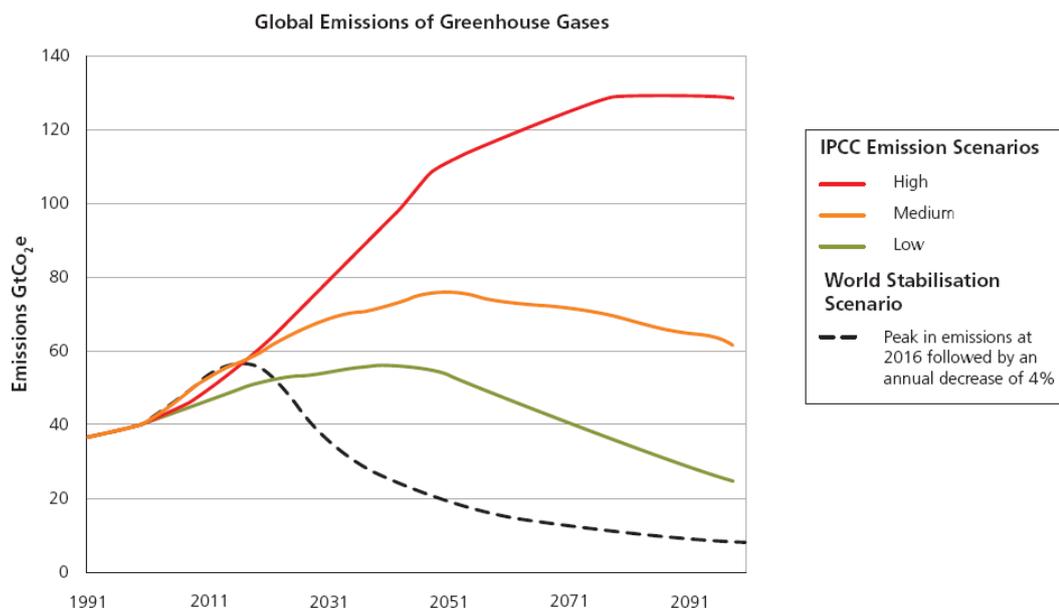
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<sup>13</sup> <http://waleslinkmarine.org.uk/images/user/WEL%20Voluntary%20Marine%20Management%202011.pdf>

<sup>14</sup> <http://wales.gov.uk/topics/environmentcountryside/climatechange/publications/strategy/?lang=en>

<sup>15</sup> The 3% target includes all ‘direct’ greenhouse gas emissions in Wales except those from heavy industry and power generation, but including emissions from electricity use in Wales by end-user. Welsh Government has set target ranges for sectoral emissions reduction.

<sup>16</sup> Under the Climate Change Act 2008, UK Government is legally required to reduce greenhouse gases by 80% of 1990 levels by 2050. The agriculture sector needs to demonstrate an 11% reduction on 2008 levels by 2020.



Source: Adapting to Climate Change Team, DEFRA

### Climate projections for the UK and Pembrokeshire

Using the medium emissions path above, the UK Climate Projections (2009) give the following central estimates<sup>17</sup> for the UK:

- increase in average regional summer temperature (June/July/August) in the 2080s between 3 and 4°C
- regional average summer precipitation change of between -17% to -23% in the 2080s
- regional average winter precipitation change in the region of +14% (in the north-east) to +23% (in the south-west), in the 2080s.

The UK Climate Projections website allows users to run their own forecasts. These are probabilistic results, from a large number of runs of a weighted

<sup>17</sup> I.e. the mean of the central 50% of the generated predictions.

suite of models. Projections are given for changes in each of annual mean temperature, winter precipitation and summer rainfall over the next 30, 60 and 90 years.

*Pembrokeshire projections (UKCP09)*

	<b>2010-2039</b>	<b>2040-2069</b>	<b>2070-2099</b>
Change in annual mean temperature	+1.3 <sup>0</sup> C	+2.3 <sup>0</sup> C	+3.3 <sup>0</sup> C
Change in summer precipitation	-3.9%	-21.5%	-26.5%
Change in winter precipitation	+8%	+19%	+26%

The three Welsh national parks produced a joint statement on climate change and security of energy supply in 2009, recognising our considerable common ground as national parks, but mindful of our distinct geographical opportunities and challenges.

In terms of nature conservation, climate change would arguably be less of an issue if it was not accompanied by the many other human impacts on ecosystems and wildlife. So a major part of the NPA's role lies in protecting or restoring ecosystems and maximising nature's adaptive potential. Our land management programme is critical to this; it also contributes to carbon storage and sequestration, both in soils and in vegetation.

*The Local Development Plan's contribution*

The PCNP Local Development Plan (LDP) aims to provide a supportive framework for renewable energy generation, subject to environmental or amenity issues. Even without counting generating capacity installed as permitted development, the LDP is ahead of target on approved renewable energy schemes. It is behind target on heat generation, but this is due mainly to the exclusion of biomass from the figures (biomass generally enjoys permitted development rights), coupled with the substantial contribution that biomass is expected to make. More detail on policy implementation is contained in the first Annual Monitoring Report of the LDP (2011).

*Sustainable Development Fund support*

The Welsh Government's Sustainable Development Fund, administered in this National Park by the NPA, continues to provide essential support to a range of energy projects alongside many other sustainable development themes. A particular milestone was the 2011 consenting for the DeltaStream tidal energy unit in Ramsey Sound. The pre-commercial demonstrator for this project was financed out of SDF (the then Environment Development Fund). This highlights the Fund's important role in supporting renewable energy generation devices/developers at stages when they find it very difficult, or impossible, to secure capital from other sources.

*The NPA's operational commitments*

The NPA also remains committed to reducing its own footprint in terms of energy, waste, fuel and water. Many of our sites showcase renewable energy technologies and best practice efficiency measures, and the NPA signed up to the Wales Sustainable Development Charter initiative in 2010.

### Marine renewable energy generation

In addition, the NPA sits in an advisory capacity on the Marine Energy Pembrokeshire group, a partnership of developers, the public sector and research institutions. Marine Energy Pembrokeshire aims to establish the county as a centre of excellence for sustainable marine energy generation. With an indicative capacity of up to 5,600MW of wave energy resource, and tidal flows around the islands that can reach 4m/s, Pembrokeshire has ideal maritime conditions for both wave and tidal flow technology.

## **7. Air quality**

In May 2011 Pembrokeshire County Council published an Air Quality Progress Report in accordance with the Environment Act 1995 (Local Air Quality Management), which concludes that air quality objectives are being achieved in the National Park area.

Outside the National Park there is potential for exceedances in nitrogen dioxide concentrations from vehicle emissions at three street locations in Haverfordwest and one in Pembroke. This reflects a general upward trend of nitrogen dioxide concentrations associated with vehicle emissions. Full details can be found on Pembrokeshire County Council's website<sup>18</sup>.

## **8. Water resources and quality**

The Environment Agency Wales' 2009 River Basin Management Plan (key to implementing the Water Framework Directive) for the Western Wales River Basin District<sup>19</sup> found that 29% of surface waters in the region meet good ecological status/potential or better - hence 71% do not meet good status. The reasons for failure relate mostly to suboptimal fish and invertebrate health, and phosphate levels. 96% of groundwater bodies are at good quantitative (i.e. volumetric) status.

The Environment Agency Wales monitors 20 beaches in the National Park between May and September to assess whether they comply with the current standards of the Bathing Water Directive. Bathing water quality is measured by EU mandatory (minimum) and guideline (higher) standards. All except one of the 20 beaches achieved the higher guideline standard in 2011, with Newport North achieving the minimum, mandatory standard in 2011.

Wet summers can lead to pollution from run-off from farmland and from over-burdened sewerage systems. It is therefore useful to look at water quality over a longer period. For the 20 monitored beaches over the five-year period 2007-2011, there were 94 instances of the higher guideline standards being achieved. The 6 variances were as follows: minimum (mandatory) standards at Amroth 2008, Broadhaven 2008, West Angle 2010, Newport North 2008 and 2011. There was one fail during this five year period (Amroth 2007).

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<sup>18</sup> [http://www.pembrokeshire.gov.uk/objview.asp?object\\_id=6322&language=](http://www.pembrokeshire.gov.uk/objview.asp?object_id=6322&language=)

<sup>19</sup> EAW 'Water for Life and Livelihoods' RBMP for Western Wales district, Annex A (Current State of Waters), 2009. Next report is due by December 2012.

Pembrokeshire County Council samples non-designated bathing beaches and recreational water to assess water quality and suitability for bathing. In 2011, 6 beaches met the mandatory standard, with 17 reaching the higher guideline standard. There was one failure (Pwllgwaelod).

2011 saw 13 beaches awarded Blue Flags in the National Park, reflecting excellent water quality and a range of other beach management criteria. Green Coast awards are an equivalent designation for excellent water quality on less developed beaches. There are 13 Green Coast beaches in the National Park in 2011 (down from 15 Green Coast awards in 2010).

13 Seaside Awards (Resort) and 19 Seaside Awards (Rural) were awarded to National Park beaches in 2011.

## **9. Geodiversity**

### *Protection of statutory sites*

The National Park's geological heritage is rich, and a potential candidate for UNESCO Geopark status. In 2009 Welsh Government commissioned a study to identify Regionally Important Geodiversity Sites. These are an advisory, i.e. non-statutory, designation intended to complement Geological Conservation Review (GCR) sites (the latter are nationally- and internationally-important sites, notified as Sites of Special Scientific Interest).

The Welsh Government study identified around 80 Regionally Important Geodiversity Sites (RIGS) in Pembrokeshire, of which 65 lie in the National Park. The NPA has adopted Supplementary Planning Guidance which identifies the RIGS boundaries and provides a statement of the geomorphological interest for each. As with GCR notification, RIGS identification should be seen as an ongoing process - there are still some potential RIGS within the National Park and Pembrokeshire which have not been evaluated, and which may be at risk.

Undesignated rock exposures or landforms may be present on potential development sites, in which case advice on their significance should be obtained from CCW. Even where no features are visible, a watching brief may be advisable when new excavations are being made in an area that has potential to reveal significant new geological interest<sup>20</sup>.

## **10. Cultural heritage**

### *A wider view of cultural heritage*

Even the most 'physical' aspects of our heritage can only be fully understood, and therefore conserved, within the context of the values and motives of the generations which gave rise to it. Clues to these lie in language, literature, music and the visual arts, but also for example in the distribution of habitats and species, and in the land itself.

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<sup>20</sup> Recording/sampling may be all that is needed in cases where an undesignated feature is likely to be damaged or obscured.

The NPA continues to explore the interactions between physical and cultural heritage, and between the past and the present, with Oriel y Parc, Castell Henllys, Carew Castle and Tidal Mill in particular providing unique windows on landscape and culture to large and diverse audiences<sup>21</sup>.

There is scope to build on the NPA's sites' successes and introduce a cultural dimension to more of our work. The NPA can also capitalise on Pembrokeshire's more contemporary cultural trademarks, such as people's concern for the environment, and passion for enjoying it. This could lead to fresh interactions with new audiences, particularly with young people.

#### Condition of Historic Environment Records

There are 7,513 Historic Environment Record sites in the National Park, which include Listed Buildings and Scheduled Ancient Monuments. The condition of non-scheduled archaeological sites is in many cases unknown, and may be difficult to assess, as some records are only known from documentary sources or aerial photos, for example. However, we do have condition assessments for Scheduled Ancient Monuments and for Listed Buildings.

#### Condition of Scheduled Ancient Monuments

A third round of Cadw monitoring of Scheduled Ancient Monuments took place between 2003 and 2010 (so the figures below may be up to 9 years old). 249 of the 284 Scheduled Ancient Monuments in the National Park were visited (88%). Their condition is as follows.

<b>SAM condition</b>	<b>National Park area</b>	<b>All-Wales</b>
Greatly improved	2.4% (6)	1.1% (39)
Improved	15.3% (38)	8% (284)
Stable	46.2% (115)	77.6% (2751)
Worsened (superficial)	3.6% (9)	3% (107)
Worsened (moderate)	26.5% (66)	8.1% (289)
Worsened (severe)	6% (15) (Some of these have subsequently been addressed.)	2.1% (75)
Destroyed	0% (0)	0.1% (2)
Total	249	3547

There appears to be a relatively high percentage of SAMs in moderately and severely worsened condition in the National Park, as compared to Wales as a whole. This is, in particular, a consequence of coastal erosion, which makes degradation and eventual loss of some SAMs inevitable, and which may make interim management unsafe. Coastal erosion may also lead to more SAMs being discovered, which could further inflate this figure.

The percentage is also a function of how different monument recorders operate across Wales, including some variation in how condition (e.g. encroachment by vegetation) is assessed. Cadw is working to fully standardise SAM recording procedures.

<sup>21</sup> There were 235,000 visitors to the NPA's centres to end of January 2012 (up from 230,000 over the same period last year). At Oriel y Parc, overall visitor numbers increased by 28%, with Gallery visitors up by 72% and learning visitors up by 65% between Sept 2011 and Feb 2012, compared to the same period in the previous year.

### Condition of Listed Buildings

There has been one addition to the number of Listed Buildings in the National Park since the Management Plan was published. This was the result of a spot listing by the NPA in 2012.

In terms of the condition of Listed Buildings, however, there have been some changes since the last Buildings At Risk survey in 2009. Of the 1,243 listed buildings in the National Park, 70 are on the Buildings at Risk Register. Of these, 2 are 'buildings at extreme risk' (the highest level of concern), 7 are at 'buildings at grave risk' and a further 62 are 'buildings at risk'.

The NPA provides guidance for owners and occupiers of listed buildings in the National Park<sup>22</sup>.

### Conservation Areas

Pembrokeshire's 14 Conservation Areas are unique settlements which are important enough to merit additional protection and enhancement. Planning control within these areas has to reflect their importance so the Authority has extra powers (known as Article 4 Directions<sup>23</sup>), which can be used to remove permitted development rights in a Conservation Area. All 14 Conservation Areas are being surveyed to ascertain whether Article 4 Directions are required.

The NPA places great emphasis on proactive support for owners and occupiers of Conservation Areas. Supplementary Planning Guidance for the National Park's Conservation Areas was adopted in October 2011, and the NPA continues to operate its highly successful Historic Town Schemes in Tenby and St David's. Under the schemes, the NPA provides £50,000, which is matched by Cadw and offered at 40% intervention rate (i.e. the schemes have a total value of £250,000 or above).

### Legislative and policy protection for Wales' heritage

The Welsh Government's proposed legislative programme includes a commitment to introduce a Heritage (Wales) Bill in 2014-15. A package of measures is envisaged, some of which might require primary or subordinate legislation, and some of which can be delivered without regulation (through advice and guidance for example).

Planning authorities can also use Supplementary Planning Guidance to encourage more proactive management of historic landscapes. The detailed landscape characterisation work carried out by the regional archaeological trusts, in support of the Register of Historic Landscapes, is an important resource for local authorities. Planning Policy Wales makes specific reference to historic landscapes, and makes it clear that landscapes are a material consideration in the planning process.

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<sup>22</sup> <http://www.pembrokeshirecoast.org.uk/Files/Files/dev%20plans/buildingcons/ListedBuildingsOwnersOccupierGuide.pdf>

<sup>23</sup> Town and Country (General Permitted Development) Order 1995

### Conserving and enhancing local distinctiveness

The National Park's historic environment is of course more than the sum of listed and scheduled assets; it includes their context, from settlement patterns to entire landscapes, and the 'ordinary', as well as the historically or architecturally noteworthy. Cadw's 2011 report *Conservation Principles* recognises that the entire rural and urban landscape of Wales is an historic asset, and that sustaining heritage values embraces both preservation and enhancement. Cadw's programme of urban characterisation has helped to identify the general elements of historic character in towns, but its principles would also apply in rural areas, and could fill the need for a consistent method of assessing the state of local distinctiveness.

The statutory framework can protect some elements of the historic environment, but local authorities have scope to address other aspects, for example through establishing 'local lists' of historic buildings, and through development policy. Local lists do not confer statutory protection, but can be a material consideration in the planning process.

Technical Advice Note 12 (Design) also provides broad support for heritage conservation, emphasising the need for the planning system to be proactive in raising design standards through development plans, SPG and design briefs. Since the LDP for the National Park was adopted, SPG has been produced and adopted for historic environment, and SPG for proposals in the National Park's 14 Conservation Areas has been consulted on.

### Heritage protection through agri-environment measures

Measures to protect the historic environment under agricultural cross-compliance will be carried forward from the Tir Gofal agri-environment scheme to the new scheme, Glastir. The NPA may be able to help raise farmers' and landowners' awareness of responsibilities, and possibly also assist them in delivery. However, opportunities for proactive management of historic/archaeological features within Glastir are likely to be restricted to the higher-level scheme, so the NPA may want to consider options to assist entry-level holdings, in terms of site management advice and support. This is particularly the case on undesignated sites, where Cadw will not have an involvement.

## **11. Enjoying the National Park**

Pembrokeshire's coastal scenery and inshore waters are of course the major recreational attraction for residents and visitors. The National Park offers some of the best opportunities for outdoor recreation in Europe, and CCW's 2008 Wales Outdoor Recreation Survey found that Pembrokeshire has one of the highest visitor participation levels in outdoor activities in Wales.

### A new plan for recreation in and around the Pembrokeshire coast

*Enjoying the National Park*<sup>24</sup> is a plan aimed at providing and managing sustainable recreation opportunities in the National Park. It was produced by the NPA in partnership with public, private and voluntary partners, funded by

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<sup>24</sup> <http://www.walesactivitymapping.org.uk/wp-content/uploads/2011/03/PCNPA-Recreation-Plan-2011-Low-Res1.pdf>

CCW and Visit Wales, and published in September 2011 following public consultation. *Enjoying the National Park* is the key to implementing National Park Management Plan policies for recreation, and also contributes to objectives for conservation and lifelong learning. It also forms the basis of Supplementary Planning Guidance, providing more detailed advice on the way in which relevant policies of the LDP will be applied.

The evidence base for the plan is the Wales Activity Mapping project (formerly the South West Wales Recreation Audit), a web-based geographical information system which allows changes in recreational use and impacts to be monitored over time; much of this information is presented in *Enjoying the National Park*, and is not repeated here.

Similarly, access on foot is not a focus of *Enjoying the National Park*; this is covered by the Pembrokeshire Coast Path National Trail Strategy and the Rights of Way Improvement Plan. However, it is noteworthy that the NPA maintains over 1,102km of footpaths and bridleways, including the Pembrokeshire Coast Path. Over 87% of the inland paths are open and usable and many lengths of paths have been adapted to be more suitable for less able people. Surveys indicate that more than 85% of users are satisfied or very satisfied with the quality of the paths, and that the majority of local residents use the paths occasionally, with around 40% using them at least once a month.

#### *Promoting recreation in the right places*

By identifying Recreation Character Areas and mapping wildness, *Enjoying the National Park* gives the NPA and its partners a common basis for guiding recreation to the most appropriate locations while protecting sites where activities would have unacceptable impact or which are simply over-used. The *Enjoy Pembrokeshire* website<sup>25</sup> plays a complementary role in this.

Coasteering provides a good example of the benefit of having a shared recreation plan. The nature and popularity of coasteering, and its spread to more remote areas, can be of concern in terms of potential disturbance to wildlife. The National Trust is increasingly adopting a licensing approach to activities on Trust property; this is aimed at capping numbers and protecting wildlife and the quality of user experience, rather than at raising revenue. However, a consequence of capping use at certain sites may be that pressure is displaced elsewhere, hence the need for a coordinated approach to zoning activities, in time as well as in space. *Enjoying the National Park* and its evidence base helps partners to achieve this.

#### *Activities for which more capacity exists*

The National Park is a walker's paradise, but there is scope to improve provision for and promotion of a number of low-impact activities on a site-specific or more general basis, and over a longer season. *Enjoying the National Park* identifies sea-swimming/snorkelling, cycling, and kayaking in particular as activities for which capacity exists.

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<sup>25</sup> [http://enjoy.pcnpa.org.uk/new\\_site/default.asp?pid=2](http://enjoy.pcnpa.org.uk/new_site/default.asp?pid=2)

However, the maintenance load associated with existing recreation provision can be a brake on new work areas. Finding ways to promote and enhance recreational opportunity throughout the year with limited resources is part of a more general challenge for the NPA and its partners, as is the promotion of links between outdoor recreation and health, wellbeing and a sustainable local economy. Events like 2011's *Ironman Wales* provide an opportunity to showcase the Park outside the main season.

## 12. Understanding the National Park

People's enjoyment of the National Park is closely linked to understanding of it, and success in much of the NPA's conservation and access work depends on people's awareness, attitudes, behaviour and goodwill. Whether the NPA is seeking to influence land management for conservation, open a permissive path, improve the condition of a historic building, or reduce traffic volumes, we work with partner organisations, residents and visitors, as agents of change.

### *Encouraging young people to enjoy the Park*

Young people are tomorrow's decision-makers, the foundation of communities, and can wield considerable influence within families. A particular concern is children's increasing disconnection from the natural environment, which can contribute to, for example, childhood obesity, mental health issues and 'nature deficit disorder'. The 2009 Welsh Government publication *Creating an Active Wales* estimated that the cost of physical inactivity to Wales is about £650m per year<sup>26</sup>.

A key medium term challenge for the NPA therefore is to encourage Pembrokeshire communities in general, and young people in particular, to make more of the recreation opportunities available. Related to this challenge is that of 'shifting baselines'; people are generally less likely to care about things they have not experienced, which can make achieving National Park purposes progressively more challenging among some audiences. However, the NPA is ideally placed to support schools, providing active outdoor learning opportunities, and enhancing the general development and wellbeing of children and young people. We also support informal learners, and hard to reach audiences.

While the NPA has been successful in working with primary schools, a barrier to working with secondary schools is the availability of teachers during the day. This makes it more important to involve children through extra-curricular activities, which also gives us scope to include those children who may fall outside the National Curriculum. Working with youth groups (using the John Muir scheme as a delivery mechanism) is one approach, and the NPA has increasingly focussed on events like wildlife-watching or bushcraft, rather than 'generic' walking events. The NPA's successful bid to the Big Lottery Fund will help us to build on the success of the Go4It project.

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<sup>26</sup> <http://wales.gov.uk/docs/phhs/publications/activewales/100121activewalesen.pdf>

### Contributing to county-wide strategies

We are also exploring the best ways in which we can contribute to the current *Health, Social Care and Well-being Strategy for Pembrokeshire* and the *Children and Young People's Plan for Pembrokeshire*. Some initial conclusions are as follows.

Firstly, our outreach work with young people should concentrate in the urban areas which have been identified as the most deprived. In order to target the most needy children and parents locally, the NPA should work in partnership with agencies which have access to these groups e.g. Plant Dewi, Youth Offending Team, and Communities First. Events engaging the 'hard to reach' and social exclusion groups involve over 2,000 participants.

Secondly, the NPA should continue to offer opportunities for active participation in outdoor recreation for children and young people as a means of addressing wellbeing and health issues. Delivery mechanisms include the Duke of Edinburgh Award scheme, and the NPA's schools and outreach programmes. Feedback from school activities shows inspiration levels averaging over 10 on a scale of 1–11.

Thirdly, there are few opportunities for work with ethnic minorities within the National Park, and this area of work is being addressed through the Campaign for National Parks' *Mosaic* initiative, which involves communities outside national parks as well. Funding has been secured from the Big Lottery Fund for three years which will enable a project officer to be employed to cover the Pembrokeshire Coast and Brecon Beacons national parks.

Finally, the NPA will need to take into account the increasing elderly population in the county, particularly where for those living in areas of multiple deprivation or rurally-isolated areas.

In all this the NPA's intention remains the same: to provide people from all walks of life with tailored and memorable National Park experiences, and to inspire them to take action.

### **13. Fostering socio-economic wellbeing in pursuit of the purposes**

#### National Park purposes and the NPA's duty are inseparable

UK national parks have their very origins in health and wellbeing, as the initial UK designations formed part of the post-WWII reconstruction effort.

In addition, many of the UK parks' special qualities are the result of previous generations' values and economic decisions. Pembrokeshire Coast's wildlife, for example, has co-adapted alongside what was historically a pastoral economy, while our historic buildings reflect practical commercial considerations, as well as those of culture and status. Hence National Park purposes, and the NPA's socio-economic duty in pursuit of them, are inseparable; conservation of the special qualities often depends on their continued management, which in turn depends on their appropriate economic use.

### Environmental valuation – not a panacea

A 2006 report (*Valuing our Environment: Economic Impact of the National Parks of Wales*) sought to measure the value of economic activity dependent on the quality of the National Park's environment. This included tourism and leisure, direct use of environmental resources (e.g. agriculture and water abstraction), and protecting and enhancing the environment (e.g. conservation and waste management).

The study found that the National Park environment generated a total of £68 million in income; supported 4,654 jobs<sup>27</sup> (with a large proportion in tourism) and contributed £81 million to the GDP of Wales. It also found that the National Park has a huge economic impact outside its boundaries (helped by its coastal ribbon character); for example 93% of indirect environment-related employment<sup>28</sup> occurs outside the National Park.

Useful as these figures have been for telling a story, there are significant shortcomings in valuations of this nature. The inclusion of nature conservation and waste management in the figures is dubious, for example, as these are defensive expenditures which in an ideal world would not be incurred. It is preferable instead to look at social outcomes (such as measures of health and happiness) and environmental outcomes (such as those contained in this report); that is, at actual results rather than at transactions.

The 2008 financial crisis seems to have triggered increasing public and policy recognition of the roots that environmental and social problems - and their solutions - often have in the economy, or, perhaps more accurately, in a monetary system predicated on expansion. This appreciation, coupled with Welsh Government programmes like *A Living Wales*, is helping once again to propel protected areas to the fore. In celebrating and encouraging people to enjoy this protected landscape, we can also use it as a platform to increase awareness and inspire action. Indeed, the development of Welsh Government's *Living Wales* programme may be partly due to protected areas' achievements in terms of conservation and creation of natural and social capital. Welsh Government's legislative programme is an ideal basis on which to reframe the Welsh economy: as a set of ecological interactions.

The Welsh Government's 2008 ecological footprinting report has been useful in this regard<sup>29</sup>. It also showed close correlation between Gross Value Added and ecological footprint (chart below). In this context, GVA, usually taken as being an indicator of economic health, is revealed to be a good indicator of footprint growth (and therefore, ironically, of unsustainability).

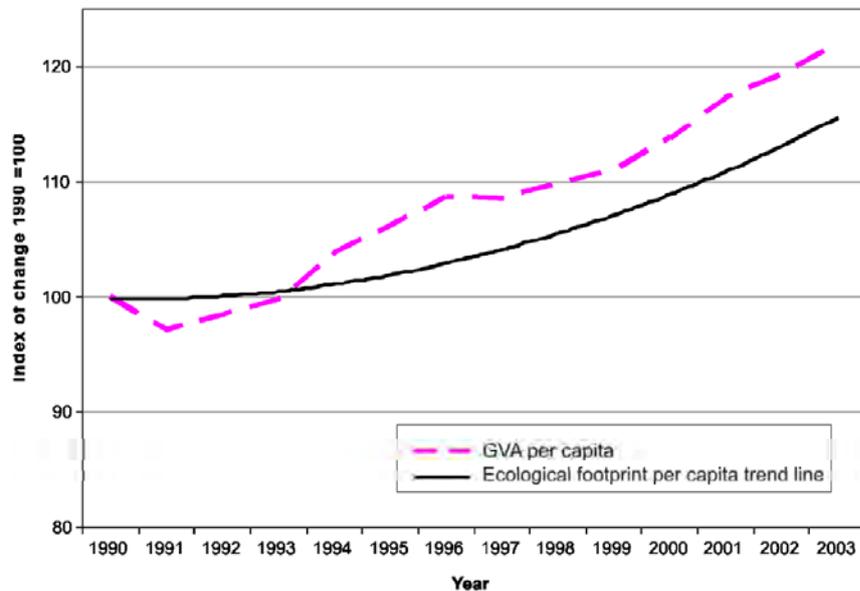
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<sup>27</sup> Of which 3,762 direct, 892 indirect.

<sup>28</sup> E.g. suppliers to visitor businesses.

<sup>29</sup> [http://www.sei-international.org/mediamanager/documents/Publications/Future/WalesEFootprint\\_report.pdf](http://www.sei-international.org/mediamanager/documents/Publications/Future/WalesEFootprint_report.pdf)

An ecological footprint represents the area of land needed to provide raw materials, energy and food, and to absorb pollution and waste created. It is measured in global hectares (gha - a hectare of land with world average productivity), and usually given on a per capita basis. The productive land available globally is 1.8 gha per person. Wales' (2003) ecological footprint is 5.16 gha per person, i.e. almost three times what would be available were everyone on the planet to have an equal allocation.



*Wales' footprint trends<sup>15</sup>*

**14. In conclusion: resource management as economic strategy**

We are fortunate to live in a relatively fertile corner of Wales, rich in potential renewable energy sources, with abundant technical and engineering expertise and, for many of us, an enviable quality of life and environment. The opportunity, now more than ever, is to recast the Park and Pembrokeshire as a healthy, functioning landscape, to help re-establish more meaningful values as a nation and, simultaneously, to support Park communities in building a resilient and sustainable economy.

The Management Plan vision, shaped by our consultees and partners, describes how the Park's natural and social assets can be harnessed into the long term. The vision leads to policies of sustainable food production and fisheries management; of renewable energy and reduced greenhouse gas emissions, and of waste reduction and efficiency.

The vision also leads to policies for a Park visited, enjoyed and valued for its friendly communities, its coastline, its wildlife and historic landscapes; for its woods, rivers and hills; for its local produce and artistic inspiration, and for its distinctive buildings and big skies.

The Management Plan therefore sets out a framework for provision of some of the most important social goods: opportunities to enjoy the rest of nature, get fit and healthy, enjoy great food, find satisfying employment, benefit from clean and secure energy source, become self-reliant and build friendly, resilient communities. Increasingly then we can see how sustainable natural resource management can in and of itself generate key economic and social policies, and bring about cultural change. In this NPA can lay just claim to helping pioneer exactly the approach envisaged by Welsh Government in its *Living Wales* programme.

Financial considerations

This interim report has no financial implications at this time.

**Recommendation**

**Members are invited to endorse this interim report as a background paper influencing the direction of the next National Park Management Plan (2014-2018).**

Background Documents

*Pembrokeshire Coast National Park Management Plan 2009-2013*

Other relevant references can be found in the footnotes in this report.

*For further information, please contact Michel Regelous on 01646 624827*