Cyngor Cefn Gwlad Cymru
Countryside Council for Wales

National Assembly for Wales Sustainability Committee Biodiversity Inquiry November 2010

Introduction

The Countryside Council for Wales (CCW) has core advisory and executive functions in relation to terrestrial and marine nature conservation, and enhancement and management of the environment for the benefit of present and future generations. CCW has a range of statutory and non-statutory functions/duties set out in European, UK and Welsh legislation and policy. Whilst our focus is on environmental legislation, now largely emanating from Europe, our strategic agenda is guided by the priorities identified by the Welsh Assembly Government in *One Wales: A Progressive Agenda for the Government of Wales 2007-2011*[2], within the overall framework of the Sustainable Development Scheme[3]. Integrating social, economic and environmental objectives is fundamental to our work. CCW welcomes the Sustainability Committee's Biodiversity Inquiry, and the opportunity to provide evidence.

[2] *One Wales: A Progressive Agenda for the Government of Wales* (27 June 2007): http://wales.gov.uk/strategy/strategies/onewales/onewalese.pdf?lang=en
[3] The Sustainable development Duty, as set out in Section 79 of the Government of Wales Act 2006: http://www.opsi.gov.uk/acts/acts2006/ukpga_20060032_en_6#pt2-pb5-l1g79

Biodiversity in Wales

The natural environment, its landscapes and biodiversity, has its own intrinsic value and is important socially and culturally, as well as providing direct economic benefits and ecosystem services. These ecosystem services include the provision of food, clean water, a stable climate, resources for energy and industry, flood alleviation, crop pollination, recreational opportunities and amenity. A healthy environment supporting functional, resilient ecosystems is fundamental to our existence by supporting social and economic development and maintaining our health and well-being. Biodiversity and the ecosystems it supports are integral to sustainable development - it is a strategic national resource for Wales.

Wales is a country with a much cherished and very diverse environment. The terrestrial environment is dominated by some of the most southerly upland regions, with an associated altitudinal range in rainfall and temperature. The green fields of our lowlands form a complex mosaic with species-rich meadows, several forms of natural woodland including Atlantic oak rainforest, fens and heathlands. The shallow sheltered waters of the Irish Sea contrast with areas more exposed to the Atlantic Ocean. As a result, Welsh seas support a wide range of biological communities, from the intertidal zone to sub-tidal reefs and sediments. A multitude of wetlands, lakes and over 20 large river systems drain to the sea.

In many ways the development of Welsh society has been intimately linked with its immediate environment, with the people of Wales living as components of the ecosystems surrounding them. The language reflects this special relationship, in words like *bro* and *cynefin* which have a strong sense of place. The landscape the Welsh people produced reflects this strong blend of human history and the nation’s natural biodiversity and geodiversity.

Biodiversity Commitments and Targets

The **Convention on Biological Diversity** (CBD) is an international treaty to sustain the rich diversity of life on earth. In April 2002, at the 6th Conference of the Parties (COP) to the CBD[4], governments committed themselves "to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth". This '2010 Biodiversity Target' was later endorsed at the World Summit on Sustainable Development, and has been included in Millennium Development Goal 7[5] under the Reducing Biodiversity Loss target, acknowledging the impact that biodiversity loss has on human health and well-being.

In addition to this (CBD) commitment[6], the European Union is committed to halt the loss of biodiversity by 2010. The Welsh Assembly Government (WAG) adopted the European targets, and set out key outcomes and targets for biodiversity in the Wales Environment Strategy (WES)[7], namely:

- The loss of biodiversity has been halted and we can see a definite recovery in the number, range and genetic diversity of species, including those species that need very specific conditions to survive (Outcome 19).
- The wider environment is more favourable to biodiversity through appropriate management, reduced habitat fragmentation and increased extent and interconnectivity of habitats (Outcome 20).
- Sites of international, Welsh and local importance are in favourable condition to support the species and habitats for which they have been identified (Outcome 21).
- Our seas are clean and support healthy ecosystems that are biologically diverse, productive and managed sustainably (Outcome 22).
- WES targets including Target 32 to bring designated sites into favourable condition[8], where CCW plays a lead role, in partnership with the Welsh Assembly Government and other partners.

The revision of the **CBD** treaty, European, UK and Wales targets are addressed in response to **Question 6.**

[4] Convention on Biological Diversity (CBD) Convention of the Parties (COP) 6 Decision VI/26 Strategic Plan for the CBC – Mission - http://www.cbd.int/decision/cop/?id=7200
[5] United Nations Millennium Development Goals, Goal 7. http://www.un.org/millenniumgoals/environ.shtml
[6] Convention on Biological Diversity: http://www.cbd.int/
[7] Wales Environment Strategy (2006): http://wales.gov.uk/strategy/strategies/environment/e.pdf?lang=en
[8] Wales Environment Strategy Target 32: Sites of international, national and local importance in Wales should be in favourable condition to support the species and habitats for which they have been identified. By 2010, 95% of international sites in favourable condition; by 2015, 95% of Welsh SSSIs in favourable condition and by 2026, all sites to be in favourable condition

Key Points

1. There is no doubt about the value of biodiversity, for its own sake and for wider economic and social well being. The value of ecosystem services should be integrated into national accounting procedures accordingly.

2. Sound science and expertise must underpin decisions made about the use and management of the natural environment. The science policy interface needs to improve at all levels.

3. Biodiversity must be owned and integrated explicitly across all sectors of Government, at all levels of decision making, business and civil society, by avoiding unnecessary impact and positive investment in opportunities.

4. Biodiversity underpins ecosystems and steps taken to avoid loss and degradation are more cost-effective than restoration after damage occurs.

5. Ensure that climate mitigation and adaptation measures are fully compatible with policies for biodiversity conservation.

6. Build on the success of current initiatives, ensuring appropriate financial incentives and effective implementation of the existing legislative powers.

7. Designate and invest in a fully functional network of protected sites as the cornerstone of our conservation policy, integral to an ecosystem approach

8. Identify and scope reform of subsidies that damage biodiversity.

9. Place healthy marine ecosystems at the heart of decision-making by effective implementation of the Marine Act to support the delivery of renewed biodiversity targets, ecosystem health, resilience and recovery.

10. Continue with direct action focussed on vulnerable and locally important species where intervention is required to maintain viable genetic variations.

11. A coordinated monitoring programme should be in place to monitor status and trends of species, habitats and ecosystems. Evidence is required to inform decision making, management approaches, and demonstrate benefits of sustainable management to the public and industry.

12. Comprehensive reporting on biodiversity action, including action taken through woodland and agri-environment schemes, is an important part of the evidence base for our biodiversity work. The Biodiversity Action Reporting System (BARS) should be used to support the planning, monitoring and reporting requirements of national and local biodiversity action.

13. Develop alliance with key stakeholders in business and social sectors, to invest in and take action to protect the services they use.

14. Local action through engagement with local communities and partnerships delivers real long term benefits on the ground and builds support and understanding of biodiversity and why it is relevant to society.

15. Use modern communication tools to reach civil society. Engage through different interest areas to encourage behaviour change and responsibility.

16. We must take responsibility for Wales' impact on global biodiversity through our procurement, trade and development policies.

17. Increase co-ordination of biodiversity research within and beyond Wales and use the Natural Environment Framework to develop to a shared Evidence Strategy for Wales. We need to ensure that such a strategy has secure supporting resources and a national capability to deliver the research required.

18. The *Living Wales* Consultation document and process provides an opportunity to consider solutions to the challenge of achieving an integrated approach to the management of the environment that reflects the complexity of environment systems and their interactions, and the value of natural capital to economic and social well being

Note: The points above are not listed in order of priority

Some of these echo key messages from recent European conferences in Ghent and Athens.
▪ Ghent September 2010 *Biodiversity Post 2010: Biodiversity in a Changing World* http://www.lne.be/en/2010-eu-presidency/events/bio-diversity-post-2010
▪ Athens European Commission Conference on Biodiversity April 2009: *Biodiversity Protection Beyond 2010: Priorities and Options for Future EU Policy* http://biodiversity-chm.eea.europa.eu/stories/european-message-athens-future-biodiversity

Question 1: Why did Wales fail to achieve the 2010 targets for halting biodiversity loss and what changes in approach are needed to ensure greater progress in the future?

In Wales, we have not failed to deliver biodiversity conservation, but we have failed to meet international biodiversity targets. As in other countries, Government, businesses and civil society have not understood the value of nature. The reasons behind this failure to achieve the 2010 targets are complex and varied and have led to habitat loss, fragmentation and degradation. The mechanisms in place to achieve the targets, and the drivers impacting on their achievement, are not just the responsibility of environmental bodies, environmental legislation, policy, strategy and action. There is a need for an integrated approach to governance and environmental management that reflects the complexity of environmental systems and their interactions, the value of our natural resources to social and economic development, and the pressures posed by natural limits and climate change. When society as a whole understands the value of biodiversity and natural resources and the services they provide – intrinsically, socially and economically – we can make real progress in changing and adapting economic systems, policy priorities, and consumption patterns so that they support and sustain biodiversity and ecosystem services.

Despite the failure to meet the 2010 target, its existence has stimulated important action to safeguard biodiversity in Wales. Since the publication of the UK Biodiversity Action Plan in 1992, the natural environment of Wales has improved as a result of the implementation of environmental legislation and policies, and through the focussed effort of organisations, groups, partnerships and individuals. Improvements relate not just to protecting and conserving the natural environment on the ground, but also to the collecting and sharing of environmental data, improving the knowledge base, raising awareness, and engaging communities. Alongside this, however, is the degradation of the natural environment through unsustainable land and sea use which has led to the continued loss of biodiversity at greater rates than would occur naturally.

We cannot continue to view biodiversity loss as an issue separate from other high profile concerns such as economic sustainability, climate change, public health, quality of life and security. Each of these is undermined by the current rate of biodiversity loss and ecosystem degradation. The global study of the economics of ecosystems and biodiversity (TEEB) published its final report[9] on 20 October 2010. TEEB identifies the urgent challenge to acknowledge the fundamental importance of biodiversity to people, and to act. The report states that "**Recognising that biodiversity underpins human well-being is one thing; translating that knowledge into incentives which influence behaviour for the better is another. It is a challenge – both in political and technical terms – that must be met if the failures of the recent past are not to be repeated and compounded".** In addition, the Lawton review of England's wildlife sites and ecological networks[10] provides a very useful analysis of the importance of having a coherent and resilient ecological network, and of the future challenges and approaches required to achieve it. The review proposes that **"the overarching aim for England's ecological network should be to deliver a natural environment where***: Compared to the situation in 2000, biodiversity is enhanced and the diversity, functioning and resilience of ecosystems re-established in a network of spaces for nature that can sustain these levels into the future, even given continuing environmental change and human pressures".* The findings of TEEB and the Lawton review will help inform policy and delivery approaches in Wales.

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[9] The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature – A Synthesis of the Approach, Conclusions and Recommendations of TEEB (20 October 2010) http://www.teebweb.org/LinkClick.aspx?fileticket=bYhDohL_TuM%3d&tabid=924&mid=1813

[10] *Making Space for Nature*: A review of England's wildlife sites and ecological network, Chaired by professor John Lawton, September 2010: http://www.defra.gov.uk/environment/biodiversity/documents/201009space-for-nature.pdf

The reasons for failing to meet biodiversity targets are well documented[11], and are accepted by administrations across Europe and beyond. In acknowledgement of this failure, and in the context of revision of the CBD treaty and European targets, the UK Government and devolved administrations are all in the process of reviewing their approach to environmental management and nature conservation. The aim will be to integrate ecosystem and biodiversity considerations across governments and business, and for the economic value of our natural resources to be accounted for in decision-making at all levels.

The UK Government has consulted on a Natural Environment White Paper, the Scottish Government is reviewing its Nature Conservation legislation, and the Welsh Assembly Government is consulting on a **Natural Environment Framework**. The *Living Wales* Consultation[12] states that the aim will be to develop a framework to secure sustainable and integrated management of land and water by making the long-term health of ecosystems, and the services they provide, central to decision-making. The final outcome of the work in 2011-2012 will be a clear set of national priorities, backed up by institutional and regulatory changes and integrated local delivery mechanisms.

The individual work streams established as part of the development of the Natural Environment Framework will consider current mechanisms for delivering for biodiversity in detail, and identify future requirements for improvement, building on existing work to develop an ecosystem approach to the management of our natural resources.

[11] For example: The global study of the economics of ecosystems and biodiversity (TEEB): http://www.teebweb.org/, and the *Making Space for Nature*: A review of England's wildlife sites and ecological network, Chaired by professor John Lawton, September 2010 http://www.defra.gov.uk/environment/biodiversity/documents/201009space-for-nature.pdf

[12] A Living Wales, a new framework for our environment, our countryside and seas (15 September 2010): http://wales.gov.uk/consultations/environmentandcountryside/eshlivingwalescons/?lang=en

Questions 2 & 3: What delivery mechanisms were in place to achieve the 2010 targets and why did these fail to deliver?

As already stated, the delivery mechanisms in place to achieve the targets, and the drivers impacting on their achievement, are not just the responsibility of environmental bodies, environmental legislation, policy, strategy and action. Due to the complexity of the interaction between legislation, policy and delivery, overlaps also exist between mechanisms.

The individual work streams established as part of the development of the **Natural Environment Framework (NEF)** will consider current delivery mechanisms for biodiversity in detail, and will build on existing work to develop an ecosystem approach to the management of our natural resources. The following is an **initial analysis** of some of those current mechanisms. The focus of the analysis is on environmental legislation and associated mechanisms, and therefore **does not provide a comprehensive assessment** of all mechanisms in place to achieve the 2010 target and the drivers impacting on them.

LEGISLATIVE AND POLICY FRAMEWORKS

Several pieces of legislation are directly linked to biodiversity delivery in Wales, and include:

- The Conservation (Natural Habitats, &c,) Regulations 1994 and its subsequent amendments, and the UK Regulations which have since been consolidated by the Conservation of Habitats and Species Regulations 2010
- The Wildlife and Countryside Act 1981 (as amended)
- The Sea Fisheries (Wildlife Conservation) Act 1992
- The Countryside and Rights of Way Act 2000
- The Natural Environment and Rural Communities Act 2006
- Environmental Impact Assessment Directive and UK Regulations
- The Marine and Coastal Access Act 2009
- The Habitats and Birds Directives and Implementing Regulations
- The Water Framework Directive
- The Town and Country Planning Act
- EC Rural Development Regulations and the Wales Rural Development Plan which have underpinned agri-environment schemes such as ESA, Tir Cymen, Habitat Scheme, Tir Gofal and the Glastir scheme.

Assessing the effectiveness of the breadth of legislation that is of direct and indirect relevance to biodiversity would be a significant piece of work. A thorough analysis would require consideration of the appropriateness of the text in the legislation, interpretation and case law, mechanisms and resources for delivery, and associated challenges and opportunities. Some work has already been done, such as the UK Government Department for Environment, Food and Rural Affairs (DEFRA) Review of the Biodiversity Duty on public authorities enshrined in the NERC Act 2006[13], referred to below. This detailed analysis will be undertaken in developing a **Natural Environment Framework**. Some observations from our initial analysis are outlined below:

Biodiversity Duty (NERC Act 2006)
In 2000, the Countryside and Rights of Way Act imparted a 'biodiversity duty' on the Welsh Assembly Government, including a requirement to publish a list of species and habitats of principal importance in Wales[14]. In 2006 this was superseded by the **Natural Environment and Rural Communities (NERC) Act 2006**. This imparted a biodiversity duty[15] on all public authorities in Wales (and England) to have regard to the purposes of conserving biodiversity in the exercise of their

[13] DEFRA (May 2010) 'Review of the Biodiversity Duty contained in Section 40 of the NERC Act 2006 – Final report' Entec: http://randd.defra.gov.uk/Document.aspx?Document=WC0788_9135_FRP.pdf
[14] Countryside and Rights of Way Act 2000, Section 74: http://www.legislation.gov.uk/ukpga/2000/37/contents
[15] Natural Environment and Rural Communities Act 2006 (Part 3, Section 40 – biodiversity duty): http://www.legislation.gov.uk/ukpga/2006/16/contents

functions. The Act required the publication of a new list of priority species and habitats in Wales[16], and places a requirement on the Government to 'further the conservation' of species and habitats on this list and promote the taking of action by others to do the same. In Scotland, the legislation varies in that Part 1 of the **Nature Conservation (Scotland) Act 2004**[17] includes a duty on every public body and office holder, in exercising any functions, to further the conservation of biodiversity so far as is consistent with the proper exercise of those functions.

DEFRA published the report reviewing implementation of the Biodiversity Duty in May 2010[18]. The review found that "room for better integration of biodiversity across the whole suite of public authorities' functions is one of the main opportunities for improvement". The review also examined how the duty in Scotland to 'further' the conservation of biodiversity had been implemented and considered whether this duty should be adopted in England and Wales. The review did not find clear evidence that the 'duty to further' had any greater impact than the 'duty of regard', although levels of awareness of the duty and guidance documents were similar across the UK. Undoubtedly, the adherence to or implementation of any 'duty of regard' is open to interpretation, and there are no implications for non-compliance. Public Authority resources are generally targeted to deliver statutory requirements, where failure to comply is high risk.

The Welsh Assembly Government and the Wales Biodiversity Partnership have demonstrated leadership on this issue in promoting the concept of biodiversity champions in local government, and there has been a positive response to the excellent work undertaken to date. However, they are often 'swimming against the tide' as they strive to integrate biodiversity considerations across local authority service areas.

Welsh Assembly Government Policies and Strategies

Biodiversity enhancement and protection is a key part of the Welsh Assembly Government's commitment to sustainable development, a commitment clearly stated in the Sustainable Development Scheme, and supported in other Government strategies, across policy portfolios. Alongside other Government strategies, the legislative framework, and the Sustainable Development duty[19] and scheme, the Wales Environment Strategy (WES) provides the main strategic framework for environmental action, to make progress towards achieving 39 key environmental outcomes in Wales by 2026. CCW provided detailed evidence to the National Assembly for Wales' Sustainability Committee as part of its scrutiny of the Environment Strategy and Sustainable Development Scheme. Information on WAG strategies, policies and programmes supporting biodiversity targets is summarised in the Written Cabinet Statement on Biodiversity published in January 2010[20]. The *Living Wales* consultation acknowledges that further work is required to achieve a truly integrated approach to the management of the environment, and that "this has resulted from not being able to look at the environment as a whole, sometimes failing to take the appropriate approach to regulatory actions, and placing objectives too often in competition with each other". The aim of the NEF will be to address these challenges.

Devolved Competence

It should be noted that the Assembly's current powers relating to the environment are limited to those outlined under Schedule 5, Field 6 (environment) of the Government of Wales Act 2006[21], and do not include biodiversity and related policy areas outlined under Schedule 7 of the Act.

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[16] Refer to Section 43 of the Natural Environment and Rural Communities Act 2006

[17] Nature Conservation (Scotland) Act 2004: http://www.opsi.gov.uk/legislation/scotland/acts2004/asp_20040006_en_1

[18] DEFRA (May 2010) 'Review of the Biodiversity Duty contained in Section 40 of the NERC Act 2006 – Final report' Entec: http://randd.defra.gov.uk/Document.aspx?Document=WC0788_9135_FRP.pdf

[19] The Sustainable development Duty, as set out in Section 79 of the Government of Wales Act 2006: http://www.opsi.gov.uk/acts/acts2006/ukpga_20060032_en_6#pt2-pb5-l1g79; and the Sustainable Development Scheme – One Wales, One Planet (2009): http://wales.gov.uk/topics/sustainabledevelopment/publications/onewalesoneplanet/?lang=en

[20] Written Cabinet Statement on Biodiversity, 18 January 2010: http://wales.gov.uk/about/cabinet/cabinetstatements/2010/100118bio/?lang=en

[21] Schedule 5 of the Government of Wales Act 2006: http://www.assemblywales.org/bus-home/bus-legislation/bus-legislation-guidance/bus-legislation-guidance-documents/legislation_fields/schedule-5.htm

Environmental assessment

In pursuit of CCW's function to protect and raise awareness of Wales' natural heritage, CCW has obligations and legal duties to provide decision makers and other bodies with advice on the potential impact of Strategies, plans and development on Wales' natural heritage. In its role as statutory consultee, CCW engages with the planning system at the national, regional and local levels by advising on plans and policies, environmental assessment processes and individual proposals for development. CCW acts as a statutory consultee and provides a range of guidance on four main statutory types of Environmental Assessment:

- Strategic Environmental Assessment Directive (SEA)
- Environmental Impact Assessment Directive(EIA)
- Habitats Regulations Assessment Directive (HRA)
- Review of Consents (RoC)

Planning Policy Wales (PPW), and its associated Technical Advice Notes, Unitary and Local Development Plans provide a framework for conserving and enhancing biodiversity. Local Development Plans are subject to environmental assessment processes such as Strategic Environmental Assessment and Habitats Regulations Assessment. To help ensure that biodiversity interests are safeguarded and enhanced through the planning system CCW is a statutory consultee on the preparation of Development Plans. CCW also engages with developers and planners from the pre-application stage of specific development proposals onwards, and attends regular liaison meetings with each local authority. As well as receiving advice from CCW, most local authorities employ their own ecologist to advise planners on the biodiversity impacts of proposed developments. Technical Advice Note 5[22] on Nature Conservation was revised in 2009 and it is too early to assess the effectiveness of its implementation. Whilst PPW and its associated guidance provide a framework to support biodiversity conservation, policies in Unitary and Local Development Plans are required to be read in the whole and one policy should not normally take precedence over another, unless it is clearly stated with reasoned justifications.

Whilst the legal framework allows for environmental assessment and habitats assessments procedures, the assessments are tools to inform planning and decision-making, rather than to determine the outcome. To this end we consider that early CCW involvement in proposals is crucial, both at the plan/policy making level and in pre application discussions on individual development proposals.

Strategic Environmental Assessment Directive 2001/42/EC

Strategic assessments help inform the direction of policy and planning frameworks. SEAs identify potential impacts on the natural environment and enable us to link biodiversity and ecosystems with human wellbeing. There is the opportunity to assess the economic and health implications of impacts on biodiversity.

CCW provides advice on likely impacts of proposals through the SEA process, especially in relation to the forward planning process. However, we are not able to sufficiently address alternative options from the outset, advising on truly sustainable options from the start.

To comply with the Regulations, Local Development Plan (LDP) preparation involves a number of procedural stages set within the parameters of a delivery framework, including the requirement to carry out a SEA and HRA of the plan. These are iterative assessment processes and, depending on the outcome of both SEA and HRA, generally result in the refinement of the plan and its policies at the various stages of the preparation process. Consequently, depending on the stage a LDP is at in its preparation, and particularly if it is in its later stages, it is not always easy for the authority concerned to react to new policy and guidance and to incorporate it into the LDP. As the Development Plan is the starting point in the consideration of planning applications for the development or use of land, the new policy therefore becomes a material consideration to be considered in determining applications, until such time as the LDP is reviewed and the policy incorporated into the review.

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[22] Technical Advice Note (TAN) 5 on Nature Conservation and Planning: http://wales.gov.uk/topics/planning/policy/tans/tan5/?lang=en

Environmental Impact Assessment Directive 85/337/EEC

The EIA Directive[23] is implemented under a series of EIA Regulations that relate to specific activities or sectors, such as agriculture, forestry, fisheries and energy (refer to Annex 2).Whilst it is important to note that there has not been a comprehensive review of the implementation of the EIA Regulations in Wales, the Wales Ecosystem Groups, Species Expert Group and Marine Ecosystem Group[24] have assessed that there are weaknesses in their enforcement, including complex reporting arrangements for breaches (Agriculture and Heather and Grass Burning Regulations). The European Commission is currently reviewing the EIA Directive (85/337/EEC) and has recently consulted[25] on its application and effectiveness (September 2010). As a consequence of this review, the Implementing Regulations may need to be revised or amended. These regulations will be considered as part of the development of the NEF.

Sites and Species Protection

The 2009 assessment of protected areas in Europe[26] asserted that the designation of protected areas is a cornerstone for the conservation of biodiversity worldwide, from genes to species, habitats and ecosystems. The Habitats Directive[27] and Birds Directive form the basis of European nature conservation policy and relate to the protection of habitats and species which are of European (and global) importance. In addition, the UK and its Overseas Territories and Crown Dependencies contribute to global networks of protected sites created under the Ramsar, World Heritage and OSPAR Conventions.

The aim of the Habitats Directive is to maintain at and, where necessary, restore to 'favourable conservation status' (FCS) a number of named habitat types and species. Habitat types are named in the Annexes of the Directive on the basis that they are in danger of disappearing, have restricted range (either naturally or as a result of declining range), or are representative of their bio-geographical region. Both the CBD and the Habitats Directive incorporate the precautionary principle into decisions affecting biodiversity. The Directive does so by reversing the traditional burden of proof in environmental planning and management, requiring that actions affecting protected sites and species demonstrate the absence of harm before they can proceed, rather than requiring harm to be demonstrated before permission can be refused.

The Directives require that account be taken of economic and social considerations, but the European Court Judgment has established that this does not apply to the identification of Special Areas of Conservation (SAC) and Special Protection Areas (SPA). Meanwhile Articles 6(4) and 16 of the Habitats Directive (dealing with derogations from site protection and species protection respectively) are the only explicit mechanisms for incorporating social and economic considerations into decision making under the Directive.

According to the UK's most recent report to the European Commission on the conservation status of Habitats Directive habitats and species (compiled in 2007 jointly by the UK conservation agencies), 5% of Annex I habitats are in a favourable conservation status and 88% are unfavourable. For species, 26% are favourable, 48% unfavourable and the remainder unknown. The report also concludes that the situation is improving, **noting that the positive effects of recent and current conservation action can take many years to become apparent**. Reports for the European Union as

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[23] Environmental Impact Assessment Directive 85/337/EEC: http://ec.europa.eu/environment/eia/full-legal-text/85337.htm

[24] For further information on the Wales Ecosystem Groups go to: http://www.biodiversitywales.org.uk/

[25] European Commission consultation on the EIA Directive, WAG web pages: http://wales.gov.uk/topics/planning/policy/dearcpoletters/eiareview/;jsessionid=MNl0MMCL4BD1hFwpv0L19GL9p4wxqqwyYT2qPvkkK71f1pknS8FG!82924164?lang=en

[26] European Environment Agency Designated Areas (CS1 008) – Assessment published March 2009 http://www.eea.europa.eu/data-and-maps/indicators/designated-areas/designated-areas-assessment-published-mar-2009

[27] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31992L0043:EN:HTML

a whole also show that the great majority of habitats and species listed in the Annexes to the Directive are in an unfavourable conservation status.

The Directive is still in the process of being implemented, and it is still too early to determine the overall effectiveness of the measures taken under it. As with all legislation, its interpretation is key to implementation, and guidance from case law does not cover all aspects of the legislation. In these instances it is necessary and possible for relevant authorities to develop and promulgate approaches that comply with the spirit of the legislation and maximise opportunities to achieve wider environmental and sustainable development goals. In the context of the failed biodiversity targets and condition of sites, it is clear that implementation of the Directives, in particular the management and protection of SACs and SPAs and the development of wider measures in accordance with Article 10[28], should form a key part of the legislative toolkit for implementing the Natural Environment Framework.

Protection offered through these mechanisms reaches beyond site boundaries and includes all areas of Annex 1 habitats. Article 10 of the Habitats Directive directs Members to develop "…policies encouraging the management of features of the landscape which are of major importance for wild flora and fauna" such as "…stepping stones" and other features that are "…essential for the migration, dispersal and genetic exchange of wild species."[28] Delivering such ecological coherence is widely recognised as an important aspect of biodiversity protection and conservation allowing the long-term survival of habitats and the species they host.

Article 10 provides opportunities for member states to achieve ecological coherence between sites and contribute to wider biodiversity targets. The effectiveness of the implementation of the regulations transposing the Habitats and Birds Directive in Wales will be considered as part of the development of the Natural Environment Framework.

Designated Sites

In Wales, CCW has responsibility for identifying and protecting nationally important Sites of Special Scientific Interest (SSSIs) under the Wildlife and Countryside Act 1981 (as amended), as well as the National Nature Reserve (NNR) network. Local Nature Reserves and Local Wildlife Sites (sometimes referred to as Sites of Importance for Nature Conservation, or SINCs) are identified within Local Development Plans.

Within the broader ecosystem approach and sustainability framework, CCW is working to achieve favourable condition of designated sites, in line with the targets outlined in the Wales Environment Strategy, European targets, and those of the CBD. CCW and the Welsh Assembly Government are co-leading on projects to deliver Outcome 21 of the Environment Strategy for Wales, in partnership with a wide range of other organisations in the public, voluntary and private sectors. The Wales Biodiversity Partnership (WBP) coordinates action, and a WBP subgroup chaired by the Welsh Assembly Government has been established to oversee delivery. **CCW monitoring of SAC and SPA features shows that only 44% are in favourable or recovering condition.** A full update on the Special Sites Project is included in Annex 3.

Protected Landscapes

The Countryside Council for Wales is the governments' statutory advisor on landscape issues in Wales and the only organisation with the power to designate an area as either a National Park or Area of Outstanding Natural Beauty (AONB), which is then confirmed, varied or rejected by the Welsh Assembly Government.

These Protected Landscapes are the only statutory landscape designations in Wales, and offer the highest possible protection for these nationally important landscapes. The Protected Landscapes are also recognised internationally by the IUCN as Category V landscapes, which are not just reserved for nature conservation but also support rural economies and communities, as living, working landscapes. The result of this legislation is the current system of landscape protection, with three National Parks and five AONBs covering nearly 25% of Wales.

[28] Article 10, Habitats Directive (Council Directive 92/43/EEC 1992)

Wales' Protected Landscapes include a wide variety of species, habitat and landscape types, and many of our most sensitive sites, which are very vulnerable to unregulated change. Analysis from CCW's Special Sites Dataset indicates that Protected Landscapes include proportionally more European Designated Sites by area than the rest of Wales. Initial analysis of this Special Sites Dataset indicates that these sites are generally in slightly more favourable condition in Protected Landscapes, compared to the rest of Wales. However this is not as distinct as had been anticipated, and requires further analysis to establish the reasons for this.

There is a wide range of issues affecting conservation status across the 25% of Wales designated as Protected Landscapes. Some of these issues are outside the control of local land management, e.g. air pollution, globalisation of the economy and European and UK Policy. However, collaborative working guided by the management plan process across different environmental sectors, and an integrated approach for the delivery for multiple objectives, must be part of the way forward.

Protected Landscapes as part of a wider network of Protected Areas can draw on experience and expertise, not just from the UK and Europe, but from across the world. They provide an opportunity to develop an integrated ecosystem approach to managing green infrastructure for our natural life support systems. Protected Landscapes are uniquely equipped to respond to these challenges, in particular in working at this broader scale, facilitating local partnerships, and utilising national best practice and resources.

Species Protection

CCW has a key role in maintaining and halting the decline of species protected under the Wildlife and Countryside Act 1981 and maintaining the favourable conservation status of European Protected Species under the Habitats and Species Regulation 2010. Nationally important species in Wales are protected under Section 42 of the NERC Act (2006), which includes the requirement to produce a list of species and habitats of principal importance in Wales (the Wales Biodiversity Action Plan list, as referred to above).

Threats arise from: changes to land use or management; development activities on land, freshwater or marine environment; persecution; and trade. Our role in relation to these activities is delivered through CCW & WAG licensing, and our advisory work. We are also active in support of the Partnership for Action against Wildlife Crime, assisting the police where appropriate with enforcement issues.

CCW provides advice on wildlife management and assists other bodies e.g. local authorities in doing so. CCW produces informative publications for both internal and external use and also works with other country agencies to share knowledge and experience and to deliver best practice.

Whilst there is evidence that legal protection prevents damaging activities, protection is hierarchical, which leads to less focus and protection afforded to 'lower tier' sites and species such as Local Wildlife Sites and Section 42 species and habitats. The planning and development control process has limited resources and expertise available to consult and advise on plans and proposals. Due to a lack of capacity this approach is based primarily on the legal 'status' rather than potential impact on, or opportunities for, biodiversity. For species the legislation is framed to address very particular and limited circumstances and cannot encompass the entire requirements of species autecology. TAN 5 advises pre-application discussions focussing on the full range of nature conservation issues: however, opportunities may be missed due to lack of capacity within the ecological advisory community. Incremental losses and fragmentation of habitats due to development therefore continues despite good planning policies.

Invasive Non-native Species

Invasive Non-native Species damage our environment, the economy, our health and the way we live. The UK is a contracting party to the CBD and the Bern Convention European Strategy on Invasive Alien Species. Provisions to tackle invasive alien species are set out in the Habitats and Birds Directives at European level, and in the Wildlife and Countryside Act 1981, and NERC Act 2006 at a UK level. Sector-specific legislation includes the Import of Live Fish England and Wales Act 1980 and others.

Following the Non-native Species Review undertaken by DEFRA in 2001[29], DEFRA, the Scottish Executive and Welsh Assembly Government launched an Invasive Non-native Species framework strategy for the UK[30] in May 2008. It is intended to provide a strategic framework to better co-ordinate the actions of Government departments, their related bodies, and key stakeholders.

The Wales Biodiversity Partnership working group on Invasive Non-native Species was set up in 2008 in response to a growing understanding of the threat posed by these species. The group is chaired by the Welsh Assembly Government and supported by the Great Britain Non-native Species Secretariat. Over the last 2 years the group has brought together a wide range of stakeholders who have worked together on a range of issues. These include an audit of current action in Wales on invasive non-native species and a list of those invasive species in Wales most in need of management. The group is currently working on targets and actions for these species.

The implementation of the UK strategy has not been subject to review, and it is also too early to assess the effectiveness of new mechanisms established in Wales and the UK. Despite publicity on this issue, general awareness remains poor. It will be imperative for work on invasive, non-native species to form part of the emerging NEF and link to European and international initiatives that address cross-border issues relating to the spread of invasive non-native species, especially due to the impacts of climate change.

Wildlife Crime

The Wildlife and Countryside Act 1981[31] is just one of several pieces of legislation containing provisions to deal with wildlife crime. CCW is part of the Partnership for Action against Wildlife Crime (PAW), a multi-agency body comprising representatives of the organisations involved in wildlife law enforcement in the UK. CCW continues to fund and support the secondment of two police officers to deal with wildlife and environmental crime. In addition, one officer has been seconded to the Forestry Commission in South Wales and another to the Environment Agency in North Wales. Since 2008, 36 new police Wildlife Crime Officers have been appointed and trained across Wales. At the end of 2009, a thematic review of wildlife crime in Wales[32] was carried out under the direction of Chief Constable Ian Arundel, who is the lead for wildlife and environmental crime in Wales. The report[33] was published in September 2010 and identified a need for greater co-ordination to achieve clarity on enforcement roles, and oversee a crime strategy, codes of practice and data sharing arrangements. It also identified a need for appropriate training for police officers at all levels, with tailored training for wildlife crime officers.

The review identified the complexity and inconsistencies in the relevant legislation as a weakness in our ability to tackle wildlife crime. In addition, North Wales Police identified weaknesses in legislation to support wildlife crime in their evidence to the Assembly on the Environmental Protection and Waste Management Legislative Competence Order in 2007[34]. Their evidence stated that the police in Wales had already identified a range of potential improvements that could be

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[29] Analysis of Non-Native Species legislation DEFRA WP01001 (2001): http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=11238&FromSearch=Y&Publisher=1&SearchText=non-native&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description

[30] The Invasive Non-Native Species Framework Strategy for Great Britain, (2008) http://www.naturalengland.org.uk/Images/Invasive_NNS_Framework_Strategy_GB_E_tcm6-8151.pdf

[31] The Wildlife and Countryside Act 1981: http://www.opsi.gov.uk/RevisedStatutes/Acts/ukpga/1981/cukpga_19810069_en_1

[32] WAG Press Release on the Review of the Prevention and Investigation of Wildlife Crime in Wales, September 2010: http://wales.gov.uk/newsroom/environmentandcountryside/2010/wildlifecrime/?lang=en

[33] Peter Charleston, March 2010 'A Review of the Prevention and Investigation of Wildlife Crime in Wales' WAG http://www.biodiversitywales.org.uk/content/uploads/documents/SG%20Meetings/SG11/wildlife%20crime%20review%20for%20paper%205.pdf

[34] Evidence of the North Wales Police on the Environmental Protection and Waste Management LCO, 20 September 2007: http://www.assemblywales.org/epwm7_-_wacpo_200907.pdf

made to conservation and biodiversity legislation, and noted that the **Wildlife and Countryside Act 1981** was "in dire need of review".

The Water Framework Directive and Catchment Scale Management

The Water Framework Directive (WFD)[35], adopted in 2000, aims to expand the scope of water protection to all waters, surface waters and groundwater; to achieve good status for all waters; and provide a framework for an approach to water management based on river basins (River Basin Management Plans) that incorporates the requirements for water dependent N2K protected areas. The WFD provides a management mechanism that can address impacts to water quality, water flow and level and also the physical characteristics of waters, on a catchment basis. Freshwater ecosystems are sensitive to a range of impacts from water management activities, including organic and inorganic pollution, diffuse pollution, abstraction, drainage and flood risk management. Whilst the needs of the relevant N2K sites are fully integrated within RBMPs, SSSI Wetlands and lakes between 1 and 50ha are poorly covered by current technical interpretation of the Water Framework Directive. In the case of wetlands that are Groundwater Dependent Terrestrial Ecosystem,the current implementation excludes consideration of 'minor' aquifers which may irrigate important wetland sites, and excludes surface drainage impacts from consideration as a source of damage to wetlands. Drainage impacts to wetlands form a significant source of damage to biodiversity in Wales. For lakes protected by SSSI designation, whilst designation protects them from acute short term damage, it does not protect them from long term impacts associated with eutrophication. The WFD includes an obligation to restore damaged water bodies to Good Ecological Status, but this only applies to lakes identified as 'water bodies'. Since many small lakes, (including SSSI lakes) are excluded from being a 'water body', there is no requirement to restore to Good Status. Minor amendments to the technical implementation of the WFD in Wales are required to ensure the WFD is relevant to many more wetlands and lakes.

Connectivity

The CCW Terrestrial Science Group is developing habitat connectivity to identify where habitat management changes can best be promoted to increase connectivity between protected sites.[36] Partnership work is ongoing to increase connectivity of habitat to maintain species population dynamics, where opportunities exist or can be created. Gaps between protected habitat (sites) are bridged through introducing sensitive land management on non-designated suitable habitat. This continues to be achieved through voluntary participation in schemes that provide incentives, including agri-environment and individual projects. Examples include the West Region Marsh Fritillary project, which has identified priority sites both within and outside our designated series that support Marsh Fritillary habitat across 3 districts. Partnership projects are evolving which will use this data to address grazing issues for the benefit of Marsh Fritillary and wider biodiversity.

Air Pollution

Despite reductions in emissions of nitrogen compounds, total nitrogen deposition has not reduced significantly across the UK, remaining at approximately 400 Kt per annum over the past 20 years. Nitrogen poses a significant threat to the achievement of favourable conservation status for a large number of habitats listed under the Habitats Directive regulations.

There are several bodies working on air pollution impacts across Europe. However, despite the obvious links of biodiversity and air pollution, the groups have previously tended to work in isolation. Target 8 of the CBD strategic plan states that 'By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.'[37]. Co-ordination and integration between signatories and within the EU and the UK will be required to meet these targets, as 48% of UK Habitats are predicted to exceed their critical load for nitrogen deposition in 2020.

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[35] European Commission web pages on the Water Framework Directive: http://ec.europa.eu/environment/water/water-framework/info/intro_en.htm

[36] Latham, J., Blackstock, T.H. and Howe E.A. 'Ecological Connectivity in Wales: Planning Action to Help Terrestrial Biodiversity Respond to Habitat Fragmentation and Climate Change'. CCW Staff Science Report No 08/7/1

[37] The Convention on Biological Diversity: http://www.cbd.int/

Marine and Fisheries

The **Marine and Coastal Act 2009**[38] is now in place, and CCW continues to work with the Welsh Assembly Government (WAG) to inform the timely and effective implementation of the Act, including: advice on the new marine licensing system; developing new regimes for marine planning, including marine nature conservation to be underpinned by the ecosystem approach; and the selection of Marine Conservation Zones. CCW is developing tools for Marine Spatial Planning, including marine sensitivity mapping for zoning, e.g. identifying Marine Conservation Zones, and fisheries management. During 2009 CCW advised WAG on an appropriate process for the selection and designation of highly protected Marine Conservation Zones (under the Marine and Coastal Access Act 2009) in Welsh waters. WAG has established a governance structure for the delivery of these sites, through which CCW continues to provide advice and expertise. Through its Special Sites project, CCW is reviewing management issues in existing marine protected areas and providing advice to ensure that marine protected sites across Wales are well-managed. CCW is working closely with WAG through the UK Marine Protected Areas (MPA) Policy Group, to support the delivery of the UK commitment to an ecologically coherent, representative network of well-managed MPAs.

The **Common Fisheries Policy (CFP)** is the EU policy for managing fisheries[39]. Total Allowable Catches (TACs) are catch limits, set for most significant commercial fish stocks. TACs are proposed by the Commission on the basis of scientific advice on the state of the stocks concerned. They are decided on by the Council of Fisheries Ministers, and then shared between Member States. A recent report published by the European Commission[40] stated that 88% of European stocks are being fished beyond sustainable levels and 30% of stocks are close to collapse. Alongside depleted fish stocks are wider ecosystem effects such as food web structure, changes in trophic levels, and biological productivity. The fishing industry, scientists, conservation agencies and the European Commission identified structural failings of the CFP[41]. In 2008, the European Commission launched a review of the CFP[42], the consultation for which concluded in December 2009. The anticipated impact assessment and green paper on the CFP have yet to be produced by the European Commission. Reform of the CFP needs to address the failure of the current approach to fisheries policy, set a long term vision, and ensure 'buy in' from the industry. In Wales, CCW worked with WAG on the development of the Wales Fisheries Strategy 2008[43], and will continue to work on implementation and provide advice on emerging issues such as scallop dredging. CCW advises Government on meeting European obligations under the Marine Thematic Strategy and Common Fisheries Policy in relation to nature conservation and management.

Implementation of the **Marine and Coastal Access Act 2009** and **Wales Fisheries Strategy**, to achieve a coherent and integrated approach to marine management and marine spatial planning, remains a key priority in developing a coherent and resilient ecological network in Wales.

PARTNERSHIPS

UK Biodiversity Action Plan (UK BAP)

The UK Biodiversity Action Plan[44] was published in 1994 in response to the UK legal commitment to CBD. The plan identified priority species and habitats in the UK that required urgent action in order to comply with the CBD. For each species and habitat, actions were identified, targets set and

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[38] The Marine and Coastal Access Act 2009: http://www.opsi.gov.uk/acts/acts2009/ukpga_20090023_en_1

[39] European Commission web pages on EU Fisheries Rules: http://ec.europa.eu/fisheries/cfp/fishing_rules/tacs/index_en.htm

[40] Reform of the Common Fisheries Policy Green Paper COM(2009)163 (22.4.2009): http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0163:FIN:EN:PDF

[41] Parliamentary Office of Science and Technology Briefing on the Common Fisheries Policy: http://www.parliament.uk/documents/post/postpn357-eu-fisheries-management.pdf

[42] European Commission web pages on the Common Fisheries Policy: http://ec.europa.eu/fisheries/index_en.htm

[43] Wales Fisheries Strategy 2008: http://wales.gov.uk/strategy/strategies/walesfisheriesstrategy/walesfisheriesstratjuly08.pdf?lang=en

[44] Wales Biodiversity Partnership web pages on the Biodiversity Action Plan http://www.biodiversitywales.org.uk/the_biodiversity_action_plan-26.aspx

responsibility assigned to Lead Partners. The UK BAP acknowledged that biodiversity conservation, sustainable use and the equitable sharing of its components required all sectors of government, business and society to take responsibility and to act. To galvanise local support it advocated the establishment of Local Biodiversity Action Plan Partnerships, which would lead on awareness raising and community engagement to support action on the ground.

Wales Biodiversity Partnership

The Wales Biodiversity Group established in 1997 evolved into the current Wales Biodiversity Partnership (WBP) and was responsible for producing the Wales Biodiversity Framework. Initially published in 2006, the Framework sets out roles and responsibilities for biodiversity in Wales. It was updated in early 2010 to take account of the review of biodiversity structures and processes.[45] Since the review, the WBP Steering Group has responsibility for the delivery of BAP in Wales (instead of the UK) and can hold others accountable if they fail to take action. The review led to the establishment of Wales-level Ecosystem groups, Species Expert group, a Policy group and Species Lead Partners. This structure brings together technical expertise from government, organisations and individuals across Wales to identify priority actions and delivery mechanisms to meet new BAP targets for Wales. Other groups working as part of the WBP include the Wales INNS groups and the Outcome 21 group. WBP has worked closely with CCW over the years to support the establishment and development of 24 Local Biodiversity Action Plan Partnerships. The BAP groups and partnerships are all committed to using the Biodiversity Action Reporting System (BARS) to locate and report on action taken. If used by all those taking biodiversity action, this will improve the effectiveness of biodiversity action planning and the ability to report on outcomes at any spatial scale.

Partnership is identified as a key mechanism for delivery of biodiversity action: however, the expectation is not matched by the available staff resource or the level of financial investment. The wider WBP network aims to bring in new stakeholders from within the key organisations and from new partners. However, there has only been limited success and this has resulted in capacity and workload issues for some staff and some organisations. Clearer governance is required to ensure that a wider range of public authorities, NGOs and businesses acknowledge their responsibility across their service area and commit to the delivery of action within their scope of influence. Measures could be introduced to ensure that public authorities are accountable, and could set out consequences for failure to deliver on identified biodiversity priorities.

Local Area Biodiversity Network

Wales has complete coverage from both LBAP Partnerships, which implement the action above, and Local Record Centres, which hold, process and disseminate the biodiversity data needed to support this work. All BAP Partnerships are supported by Local Authorities and National Park Authorities and employ biodiversity officers who are part funded by CCW. The LBAP partnerships deliver an enormous amount of work for biodiversity including species and habitat management, survey, monitoring, education and community engagement. Examples of LBAP work exist in the 2 'Local Success' reports, the latest of which was published on the WBP website[46] in September 2009. Although excellent progress has been made, there remains scope to clarify governance arrangements for Local Area Biodiversity work such as better integrating action with other mechanisms and the provision of long term investment. The 2008 BAP reporting data shows that with the exception of Local Development Plans and local authority land management plans there had only been limited success in integrating the LBAP into other plans and strategies where this had resulted in action for biodiversity. The data also identifies that 38% of the constraints to progress provided by the LBAP coordinators were related to funding, incentives and resources.

Welsh Assembly Government Policies and Strategies

Biodiversity enhancement and protection is a key part of the Welsh Assembly Government's commitment to sustainable development, a principle clearly stated in the Sustainable Development Scheme, and supported in other Government strategies, across policy portfolios. Alongside other

[45] Wales Biodiversity Partnership (2010) Updated Wales Biodiversity Framework http://www.biodiversitywales.org.uk/content/uploads/documents/Guidance%20Legislation/Wales%20Biodiversity%20Framework%20FINAL%20MARCH%202010.pdf

[46] Wales Biodiversity Partnership website: http://www.biodiversitywales.org.uk/

Government strategies, the legislative framework, the Sustainable Development duty[47] and scheme, the Wales Environment Strategy (WES) provides the main strategic framework for environmental action, to make progress towards achieving 39 key environmental outcomes in Wales by 2026. CCW provided detailed evidence to the National Assembly for Wales' Sustainability Committee as part of its scrutiny of the Environment Strategy and Sustainable Development Scheme. Information on WAG strategies, policies and programmes supporting biodiversity targets is summarised in the Written Cabinet Statement on Biodiversity published in January 2010[48].

FINANCIAL MECHANISMS

Funding for Biodiversity

CCW's grant programme has provided funding for biodiversity both directly and indirectly for several years. Since 2005, CCW has spent approximately £2.6 million a year on grant funding that directly benefits biodiversity. From 2001, CCW administered the Species Challenge Fund, and between 2005 and 2009 the SCF delivered £700,000 directly to projects that delivered work for BAP priority species across Wales.

CCW has developed Strategic Grant Partnerships with some of the larger NGOs, leading to improved delivery across a number of common delivery areas including health and well being, education and biodiversity.

CCW has undertaken an initial study to examine scope to develop an all-Wales scheme to deliver practical biodiversity action on land that is not eligible to enter into agri-environment schemes and other initiatives. CCW undertook a consultation in 2008-9, involving a range of public and NGOs, in order to:

- ascertain the need and level of support for a biodiversity scheme across Wales
- seek views on its potential scope and focus
- seek views on eligibility criteria
- seek views on preferred options for the management of such a scheme
- identify any possible sources of funding for the establishment and delivery of an all-Wales scheme

CCW presented the results of the scoping study to the Welsh Assembly Government in December 2009, and is currently developing a project plan for appropriate funding mechanisms for biodiversity, in conjunction with partners.

European Funding

The 2000-2007 programming period provided funding through the Objective 1 programme. This programme was established to improve the economic performance of the region and was funded from the Structural Funds. Priority 5 of this Programme targeted Rural Development and the sustainable use of Natural Resources and had an allocation of over £150m from the European Agricultural Guidance and Guarantee Fund (EAGGF), European Regional Development Fund (ERDF) and Financial Instrument for Fisheries Guidance (FIFG).

Leader+ was an EU-co-financed Community Initiative (CI) which ran from 2000 – 2006 with the aim of stimulating bottom-up development in rural areas. Biodiversity action could be funded under any of the 3 Themes.

The INTERREG Programme 2000-07, funded by ERDF, offered scope for funding of biodiversity projects, as does the current Ireland/Wales Programme 2007-13.

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[47] The Sustainable Development Duty, as set out in Section 79 of the Government of Wales Act 2006: http://www.opsi.gov.uk/acts/acts2006/ukpga_20060032_en_6#pt2-pb5-l1g79; and the Sustainable Development Scheme – One Wales, One Planet (2009): http://wales.gov.uk/topics/sustainabledevelopment/publications/onewalesoneplanet/?lang=en

[48] Written Cabinet Statement on Biodiversity, 18 January 2010: http://wales.gov.uk/about/cabinet/cabinetstatements/2010/100118bio/?lang=en

The EU also has a dedicated fund for the environment, LIFE. From 2000-07 this fund was only available for actions on N2K sites. From 2007 onwards, the fund was re-named LIFE+ and funding was made available for wider biodiversity actions outside N2K sites.

European Structural Funds in the 2007-13 period are being delivered in Wales via the Convergence and Competitiveness Programmes. The focus is largely economic and the funds offer limited scope for biodiversity work. From 2007-13, funds for biodiversity relating to fisheries and aquaculture is available from the European Fisheries Fund.

Common Agricultural Policy (CAP)
During the period 1997- 2005, production subsidies for both sheep and cattle were provided on a headage basis. Since 2005 however, most farmers have been entitled to claim the Single Farm Payment (SFP). Whilst the SFP is related to the level of subsidy previously during the period 2000-2002, the level of payment no longer depends on actual numbers of stock produced or area of crops grown and is therefore described as being "decoupled from production".

One of the conditions applied to the SFP is that all recipients must abide by the terms of the cross-compliance system. This involves respecting statutory management requirements (such as the legal obligations relating to animal welfare, control of pollution and Sites of Special Scientific Interest) as well as retaining all land in Good Agricultural and Environmental Condition (GAEC). Support payments can be reduced or may be withheld entirely should there be a breach in the required standards. Whilst the bulk of these standards relate to existing legal obligations, there are a smaller number of non-statutory requirements covering issues such as the management of soils and traditional field boundaries. These requirements can contribute to biodiversity conservation, but the primary purpose of the SFP is to support agricultural incomes. It can therefore contributes to the maintenance of farming systems beneficial to biodiversity whilst at the same time underpinning the adoption of more intensive practises and/or land abandonment damaging to wildlife.

THE WALES RURAL DEVELOPMENT PLAN (WRDP)

Agri-environment Schemes
Whilst it is possible to regulate and to use cross compliance to tackle some of the more obvious negative environmental impacts arising from agriculture, it is far more difficult to ensure the retention of traditional environmental "by-products" such as species rich hay meadows and farmland bird populations. For many years, the ongoing decline in the real value of the market prices received by farmers has progressively driven greater efficiencies and intensification whilst at the same time reducing the quality of the farmed environment. As a result, a range of agri-environment incentive measures were introduced from the early 1990's onwards in the form of the ESA, Tir Cymen and Habitat Schemes. These measures are part funded by the European Commission under the CAP and part funded by the Welsh Assembly Government.

Between 1999 and 2008, the number of individual agri-environment agreements in Wales increased from 4,120 to 8,620 whilst the area covered by these schemes increased from 262,000 ha (16% of the Welsh agricultural area) to 680,000 ha (41%)[49]. This increase was driven partly by the increased national and European funding available under the Wales Rural Development Plan (WRDP), but also reflected the significant coverage (c.300,000 ha) achieved under the less demanding Tir Cynnal entry-level scheme which was introduced in 2005.

By the autumn of 2009 just under 370,000 ha or 22.5% of the Welsh agricultural area had been entered into the current higher level agri environment scheme Tir Gofal. Of this, 176,000ha was in the form of improved grassland or arable land, but nearly 21,000 ha of this (12%) had been converted to less intensive uses such as unsprayed cereals, semi-improved grassland or other habitats such as woodland[50]. CCW data on terrestrial Natura 2000 sites (these amount to just over 181,000 ha) reveals that just over 32% of this total area is now supported under Tir Cynnal or Tir Gofal[51].

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[49] *"State of the Welsh Countryside", Countryside Survey 2007, page 76.*
[50] *Welsh Assembly Government, personal communication, October 2009*
[51] *Source: CCW Actions database*

Whilst agri-environment schemes have the potential to contribute significantly to biodiversity conservation, they are still a voluntary mechanism with a limited budget. Many farmers have either been unable to participate of have chosen not to do so. In addition, the beneficial results of a farmer entering into such agreements can often take many years to emerge. In some cases, the relatively simple prescriptions available then need to be adjusted over time whilst some species (including farmland birds such as lapwing) may have relatively complex life cycle needs that depend on all of the necessary conditions being provided at the same time and at a suitable scale.

The recent CAP Healthcheck made plain that Rural Development Plans should address a range of new challenges including biodiversity, water management and climate change[52]. The Welsh Assembly Government reviewed the existing suite of agri-environment schemes in 2008 and subsequently resolved to introduce a new and more comprehensive scheme in the form of Glastir. Applications for the All Wales Element (AWE)are currently being accepted with contracts to deliver the more focused Targeted Element (which has biodiversity as one its 6 objectives) due to come on-stream from 2013 onwards. Both elements of the new scheme have the capacity to deliver significant biodiversity benefits although much will depend on the kinds of options that farmers choose to deliver under the AWE, the amount of land that comes into this part of the scheme and the balance between AWE and TE in terms of the amount of resources expended.

Woodland Grants

Grants for woodland management and expansion have been available via the *Better Woodlands for Wales* scheme, run by Forestry Commission Wales. This supports the WAG *Woodlands for Wales* strategy objectives, including the sustainable management of broadleaf woodlands and the restoration of Plantations on Ancient Woodland Sites (PAWS). Unfortunately, the reporting process has not been able to demonstrate what proportion of grant aid has contributed to the management of native/broadleaf woodlands. *Woodlands for Wales* also encourages woodland expansion, but the area of new woodland over the past few years, though predominantly broadleaf, has been very low.

Organic Farming

Whilst there are often similarities between organic farming practices and those used in agri-environment schemes (many farmers adopt both approaches simultaneously) the funding mechanisms and many of the farming practices involved are often fundamentally different.

State Aided Section 15 and 16 Management Agreements

Management agreements can be made by CCW under Section 15 of the Countryside Act 1968 for most SSSI or Section 16 of the National Parks and Access to the Countryside Act 1949 for National Nature Reserves (NNRs). These agreements cover about 20% of the total area of terrestrial N2k sites in Wales. Taken together with agri-environment contracts, the total coverage is about 48% as there are some overlaps where Section 15 are used to top up agri-environment agreements.

[52] See: http://ec.europa.eu/agriculture//healthcheck//index.eu.htm

RESEARCH & MONITORING

Recording the Evidence

Sound environmental decisions are dependent on evidence of a suitable quality being available to the appropriate decision maker, and in a format that is meaningful to the nature of their enquiry. The overall objective should be to use the power of evidence to motivate and support the societal and governmental changes needed to protect the environment for the future. CCW staff are constantly keeping the environmental evidence base under review, assessing the latest findings from the national and international scientific literature in a Welsh context, and feeding them into practical environmental management, advice and policy development.

CCW holds over 700 environmental datasets which are available for interpretation and analysis as questions about the environment arise. We maintain and produce maps and atlases showing the distribution of key habitats and species. We also have very valuable long-term datasets which provide credible and objective evidence to support management action, infer trends and inform policy. We have the capacity to produce environmental models and visualizations of the changing Welsh environment, including the delivery of remote sensing images.

For biodiversity information (especially species records), the environment sector is especially dependent on the activities of volunteer expert biological recorders, and data that is commissioned or collected by public and private sector organisations through survey, monitoring and research. The following mechanisms have been implemented in Wales to support data provision:

- Wales is unique in the UK in having a complete Wales-wide network of Local Records Centres (LRCs). The 4 LRCs work in partnership forming a cohesive network covering the whole of Wales and have a shared vision and a list of common services that they provide the LRC community[53]. All LRCs in Wales act as nodes of the UK National Biodiversity Network.
- National Schemes and Societies (NSS) collect huge quantities of biodiversity records usually working on a voluntary basis through the societies e.g. BSBI, BTO etc at UK, National and local level. Successful sharing is dependent on the commitment of these volunteers.
- The Wales Environmental Information Forum and Steering Group (WEIF/WEISG) brings together environmental information players in Wales and facilitates the development of shared objectives and priorities. The current focus is on data flow and developing a data sharing charter for Wales. The charter is ready for consultation and adoption, initially by public sector organisations, followed by private and voluntary sector, and will require Government support. WEISG operates in the UK context and works in partnership with the National Biodiversity Network (NBN), the Marine Environmental Data and Information network (MEDIN) and Association of Local Environmental Records Centre (ALERC).

Despite these successes, progress is slow and uncertain due to a number of factors including:

- The lack of a robust governance structure for data collection and management
- LRC dependency on short term Service Level Agreements (SLAs) with public authorities (Only 5-15% of their funding is from the private sector)
- Difficulty in securing ring-fenced money for data management.

Maintaining the Evidence Base

CCW recognises that evidence includes data derived from environmental surveillance, monitoring and research, but also information from socio-economic and attitudinal arenas. The latter can be important in terms of presenting a case for appreciating and valuing biodiversity, and it is important to get the balance right, especially in economically stringent times. Scientific research and evidence collation is undertaken by a number of organisations within and beyond Wales, including CCW, Environment Agency (EA), Forestry Commission (FC), DEFRA, Centre for Ecology and Hydrology (Bangor), Universities and NGOs. In particular, the Environment Centre Wales in Bangor serves as a very valuable model of scientific research co-operation closely linked with the end-user community through the Wales Environment Research Hub. CCW has a modest programme of research, which allows it to comment on the state of environment, to anticipate trends, to evaluate policy & advice formulation, and to assess some aspects of land and sea management effectiveness at different

[53] LRC shared vision and web pages http://www.lrcwales.org.uk

scales. The outputs from our research programs reach a high standard and are available as technical reports which will shortly be available on our website.

One of CCW's greatest assets is its range of environmental staff who work on the Welsh environment every day of the week. We have specialists who can advise on the ecology and management of terrestrial and aquatic habitats and species, and associated environmental pressures. They also provide access to a network of environmental professionals in universities, research institutes, and regulatory and government agencies. Consultees to the CCW Governance Review (2009) acknowledged that CCW has world-acknowledged experts amongst its science staff. Many of our staff are highly qualified and have more than 10-15 years experience of working in Wales and they are respected in Wales and beyond. They have been asked to serve on national and international conservation committees/working groups. They advise on research priorities at a national and UK level and review research proposals for the Natural Environmental Research Council and other funding organizations. Research led and managed by CCW staff is published in peer-reviewed international journals. CCW staff serve on journal editorial boards and act as referees for a wide range of environmental publications. Many are sought out as invited speakers and chairs at conferences, and contribute to specialist training in universities and through professional societies. **Most importantly CCW's specialists offer impartial advice in a world** of scientific uncertainty. As devolution progresses we think it is especially important to ensure we maintain an adequately funded, critical level of scientific expertise and national capability within the environmental agencies, research institutes and higher education bodies in Wales.

CCW has produced an evidence and monitoring strategy which is closely linked with the Wales Environment Strategy challenges. We are also working closely with The Wales Environment Hub, established in 2007, which is tasked with bringing together environmental research in Wales and to identify gaps. In particular, we have participated in a Hub- and WAG-led review of research needs, and a workshop with Government research partners in Wales. We feel that co-ordination of this research in Wales is very important to achieve value for money, building research partnerships and maximising the outcomes. CCW is also very active at a UK level, influencing biodiversity related research through the Joint Nature Conservation Committee, the UK Biodiversity Research Advisory Group and the Welsh Assembly Government.

It is acknowledged that some of the research priorities identified in original BAP habitat and species action plans are still outstanding. In addition, the recent CCW focus on Special Sites has highlighted the need for research directed at the management and restoration of these critically important biodiversity sites.

We recognise that the Natural Environment Framework provides an ideal opportunity to develop a shared Wales Evidence Strategy which will increase the profile of evidence needs in Wales, including those required for specific biodiversity action. We have also recommended that a Welsh Evidence Group of key environment agencies is convened to co-ordinate our research interests and recognise opportunities for collaboration. In addition we expect the UK and Welsh National Ecosystem Assessment to identify research priorities and gaps in our knowledge.

In a changing world CCW thinks it is especially important to maintain a comprehensive and reliable environmental monitoring network in Wales, preferably as part of larger UK-wide schemes. Good examples of such arrangements include the Environmental Change Network and the Acid Waters Monitoring Network, which have several monitoring stations in Wales. Wales also has a responsibility for some very unique and valuable long term series datasets. For example, Skomer Marine Nature Reserve supports some of the longest running monitoring datasets in the UK, and over 15 years of weather data has been collected at the Snowdon ECN site. Future biodiversity targets will need to be supported by accurate and regular monitoring and reporting of biodiversity losses and gains, and the success of any associated practical mitigation or compensation measures.

To conclude, we think there is scope for greater co-ordination of biodiversity research within and beyond Wales. The development of a shared research and monitoring strategy within Wales should

include a range of different costed options. The broad scope of such a programme is illustrated by the recent identification of priority policy options and research needs for UK nature conservation[54].

Question 4: Is the current approach to dealing with climate change mitigation and adaptation in Wales sufficiently integrated with policies for biodiversity?

Climate change has long been recognised as a potential threat to achieving biodiversity targets. A wide range of organisations from across Britain and Ireland, including CCW, contributed to the MONARCH project which evaluated the potential threat that climate change poses for biodiversity, firstly through a broad qualitative impact assessment[55], and subsequently through the use of bio-climate envelope models to assess the scope for species of conservation importance to change their range (predominantly through a northward shift)[56]. These and other appraisals of the significant potential impacts provided the impetus for developing a set of guidelines *Conserving biodiversity in a changing climate*[57] which have been widely publicised in Wales to promote adaptation action within the biodiversity sector.

CCW has recently undertaken an exercise to collate best practice case studies for biodiversity adaptation in Wales[58]. At the local scale there are many projects that can strengthen environmental resilience to climate change, whether through enhancing resilience; monitoring and projecting impacts; improving understanding and awareness; or delivering emission reductions. The projects range from urban community initiatives to rural landscape-scale projects**. It is clear that the biodiversity sector has developed a wide variety of local initiatives that are addressing adaptation but, in the main, these initiatives are locally focussed and initiated by biodiversity-centred organisations, sometimes lacking the wider stakeholder buy-in that is possible. There has been relatively little attempt at mainstream adaptation action across Wales, with one or two exceptions, such as the Networked Environment Regions Initiative that is being rolled out across the country.** Another characteristic of many of the projects is that they are primarily scoping or planning adaptive management (e.g. Econet, NER). A relatively small proportion have not yet delivered on-the-ground action, although that is expected to change. What is clear is that the biodiversity sector in Wales has accepted the need to adapt, is developing approaches to do so, and is well ahead of many other sectors in terms of awareness and action to address climate change impacts.

While there is a need to do more in the sector in terms of adaptation and adaptive conservation management, of much greater concern is the need to identify both synergies and conflicts with other sectors, particularly those that influence land management, such as water resources, flood management, agriculture, forestry, planning and tourism.

The **Review of Shoreline Management Plans** in Wales is considering coastal habitat loss due to sea-level rise over the next 100 years. There is likely to be a need for provision of compensatory habitat to offset the losses identified, so the overall effect of the plans on conservation sites should be neutral or positive. Habitats and species of biodiversity importance which occur outside designated sites are being assessed in the Strategic Environmental Assessments for the Plans. Natural resources,

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[54] Sutherland, W.J., et al (2010) *The identification of priority opportunities for UK nature conservation policy.* Journal of Applied Ecology 47, 955-965 http://onlinelibrary.wiley.com/doi/10.1111/jpe.2010.47.issue-5/issuetoc

[55] Harrison, P.A., Berry, P.M. & Dawson, T.P. (Eds.) (2001). *Climate Change and Nature Conservation in the Britain and Ireland: Modelling natural resource responses to climate change (the MONARCH project)*. UKCIP Technical Report, Oxford.

[56] Walmsley C.A., Smithers, R.J., Berry, P.M., Harley, M., Stephenson, M.J. & Catchpole, R. (2007). *MONARCH: Modelling Natural Resource Responses to Climate Change – a synthesis for biodiversity conservation.* UKCIP Technical Report, Oxford.

[57] Hopkins, J.J., Allison, H.M., Walmsley, C.A., Gaywood, M. & Thurgate, G. (2007). *Conserving biodiversity in a changing climate: guidance on building capacity to adapt*. UK Biodiversity Partnership. DEFRA, London.

[58] CCW (2010). *Biodiversity Adaptation: Best Practice in Wales.* Countryside Council for Wales, Bangor.

such as saltmarsh and mudflats, should be valued in terms of their contribution to flood and coastal erosion risk management rather than focus solely on built structures for coastal defence. This change in approach would have important biodiversity benefits. Asset Management Plans for water resources, Catchment Flood Management Plans for flooding and the new Glastir agri-environment scheme for farming are other examples of where climate change measures have been considered as a key component of the sectoral response. However, this has not been universally the case. A major challenge is ensuring that, when considering climate change action, other sectors consider the potential benefits that biodiversity conservation could make to the climate change goals of the sector – and vice versa.

In future, climate change mitigation and adaptation action in Wales will be driven by the Wales Climate Change Strategy. The production of this Strategy has been guided in part by advice from the Climate Change Commission, which includes 3 representatives from the biodiversity sector (CCW, Wales Environment Link, EA Wales). A Natural Environment Adaptation Task and Finish Group, steered by CCW with input from others working on nature conservation, produced a report that informed the adaptation section of the Strategy and associated Action Plan[59], which includes a series of actions relating to the biodiversity sector. The Strategy also requires the development of Sectoral Adaptation Plans, including for the natural environment, which should provide further guidance and stimulus to integrating consideration of biodiversity in the adaptation Action Plan. Despite significant adaptation activity within the biodiversity sector in Wales and explicit consideration of biodiversity within the Wales Climate Change Strategy, the full potential for biodiversity to deliver adaptation and mitigation in Wales has not been explored.

The conservation and management of biodiversity, and the ecosystem services that it provides, can make an important contribution to tackling climate change in Wales, while it is equally true that we must address climate change to effectively tackle biodiversity loss. This synergy arises because there is a substantial overlap between the drivers of climate change and biodiversity loss; for example, air pollution, inefficient resource use and unsustainable agricultural practices. A workshop organised by the European Nature Conservation Agencies Network (ENCA) and Bundesamt für Naturschutz (BfN), with CCW input, explored the potential for nature conservation to help address climate change across Europe[60]. There are ecosystem-based adaptation and mitigation examples across Europe that not only illustrate the potential for reducing Greenhouse Gas (GHG) emissions and supporting societal adaptation but also provide other benefits, including biodiversity enhancement, livelihood, health or recreational opportunities. A lack of policy integration between the biodiversity and climate change areas was identified as a barrier to implementing these ecosystem-based adaptation or mitigation measures across Europe. However, other barriers to action were identified, including uncertainty, lack of information on best practice and a tendency to prefer short-term decisions and economics to long-term sustainability. While efforts have been made to link both biodiversity conservation and climate change agendas in Wales there is a need for further integration through a concerted effort to deliver ecosystem-based adaptation, and to a lesser extent ecosystem-based mitigation in the form of carbon conservation, particularly in the Welsh uplands. This approach should be seen as part of the implementation of the WAG Sustainable Development Strategy so ensuring that adaptation and mitigation measures, wherever possible, are sustainable and deliver synergies for both aspects of climate change policy as well as biodiversity. This will only be achieved if local authorities, Local Service Boards and Spatial Plan Regions play a role in the planning and delivery of climate change and biodiversity action, and are properly resourced to do so.

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[59] WAG, 2009. *Integrating Adaptation into Management of the Natural Environment. Adaptation Sub-Group of the Climate Change Commission for Wales.* Report from the Natural Environment Working Group to the Climate Change Commission.

[60] Cowan, C., Epple, C, Korn, H, Schliep, R. & Stadler, J. (2009). *Working with Nature to Tackle Climate Change.* Report of the ENCA/BfN Workshop on *Developing ecosystem-based approaches to climate change – why, what and how*. International Academy for Nature Conservation, Isle of Vilm, Germany (22-25 June 2009). BfN Skripten 264. Bundesamt für Naturschulz, Bonn.

Question 5: What examples of good practice are there elsewhere in the UK and internationally that Wales can learn from?

MARINE

Isle of Man Closed Scallop Area
It is generally the case that when marine species or habitats have experienced decline, the best and often the only effective course of action available, is to remove the damaging activity and allow recovery to progress unaided. For example, scallops have provided a major fishery on the Isle of Man for over 60 years. Dredging for scallops in the last 50 years has been heavy and conservation legislation is in the form of a seasonal closure which has been in operation since 1943. Minimum landing sizes, gear and vessel restrictions are also applied to the Manx scallop fishery. Since 1989, an area of 2km^2 off the southwest coast of the Isle of Man has been closed to commercial fishing with mobile gear. Originally established to enable feasibility studies for scallop cultivation and stock enhancement, it was subsequently maintained to provide an opportunity to monitor recovery of benthic communities and to carry out controlled experiments on the effects of scallop dredging.

Seabed communities in areas outside the closed area are generally characterised by encrusting forms of bryozoans and sponges. Following years of being protected from physical damage, the topography of seabed communities in closed areas was more complex and species diversity greater, with upright forms of bryozoans and hydroids. Scallop spat numbers were 8.4 times greater in the closed areas of seabed with greater habitat complexity than in the areas outside the closed area. The more upright and heterogeneous seabed communities are thought to provide important settlement substrate for juvenile scallops. In addition, the number of individuals above minimum landing size increased by 7 times that of pre-closure levels. There were increases in mean scallop age and biomass, and also indirect evidence for both spillover and larval export from the MPA. Local fishermen firmly believe it has improved the adjacent fishing grounds and anecdotal reports indicate higher catch rates[61].

The establishment and effective policing of closed areas has benefits for both the environment and marine industries. Research and long-term monitoring have been essential in determining the scale of environmental and commercial improvement, informing future management and demonstrating the benefits to the public and industry.

BUSINESS

Aggregate Industries UK, a subsidiary of Holcim
This company restores ecosystems as part of its quarrying operations. In support of a request to extend an existing quarry in North Yorkshire, the company proposed to create a mix of wetlands for wildlife habitat as well as an artificial lake for recreation, following the extraction of sand and gravel from land currently used for agriculture. Stakeholders were consulted to determine their preferences. Ecosystem valuation was undertaken, using the benefits transfer approach, to assess the types and scale of economic benefits associated with wetland restoration.

The study showed that the value of biodiversity benefits that would be generated by the proposed wetlands (£1.4 million), the recreational benefits of the lake (£350,000) and increased flood storage capacity (£224,000) would, after deducting restoration and opportunity costs, deliver net benefits to the local community of about £1.1 million, in present value terms. The value of carbon sequestration in these wetlands was found to be relatively small, while the marginal benefits associated with wetland restoration far exceeded the current benefits derived from agricultural production.

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[61] Marine Protected Areas for Management of Temperate North Atlantic Fisheries
http://www.defra.gov.uk/environment/marine/documents/science/mpareport-northatlantic.pdf

The study further shows that the costs of ecosystem restoration and aftercare are low, compared to both the economic benefits of wetland restoration and the financial returns from sand and gravel extraction. This example illustrates that compensation for adverse environmental impacts is not only an important means for companies to maintain their license to operate, but can deliver overall improvements in ecosystem services with substantial economic benefits at modest expense.

Vittel Mineral Water – Payment for Ecosystem Services[62]

Payment for Ecosystem Services (PES) is a "voluntary transaction where a well-defined environmental service is 'bought' by at least one buyer from a minimum of one service provider, if the environmental service provider secures environmental service provision"[63]. Incentives are paid to land managers (sellers) to adopt management practices that protect the ecosystem service for the beneficiary (buyer). Such subsidies are usually funded by the private sector rather than from public funds.

An example is a PES programme instigated by Vittel in North East France in 1988 in recognition of the potential negative impacts on their business of increasing nitrate levels in their water due to farming intensification in the water catchment area. Vittel waters are labelled 'natural mineral water' and so must come from a well-protected specific underground source and the composition of the water must be stable. In France legislation is strict and they risked losing their 'natural mineral water' label.

Vittel spent 10 years developing a partnership with the farmers to secure their trust and support for a mutually acceptable set of incentives. The Vittel PES programme is paid to the 26 farmers or 'sellers' who participate on a voluntary basis. Incentives include debt relief for land tenure as well as payment for changing their farming practices e.g., abandonment of maize production and chemical fertilizer, support for new pasture management techniques and modernisation of farm buildings to tackle waste management.

Part of the programme included setting up an intermediary institution to coordinate the programme, facilitate transition between the seller (farmers) and buyer (Vittel) and to monitor compliance by the sellers.

FINANCE SECTOR

There is evidence that the financial sector is increasingly assessing ecosystem risks and opportunities as part of corporate lending strategies. E.g. Citi have begun assessing risks associated with dependency on, but disregard for, ecosystem services such as water supply[64]. This type of attention from the financial sector can drive change other sectors who seek investment.

CATCHMENT PROTECTION

The City of Melbourne draws a significant proportion of its water supply from watersheds where the forests are protected. These provide natural filtration of water flowing through the catchments. If these watersheds were logged or if the land was converted to agricultural or urban development, Melbourne would need to build a new water treatment plant at a cost of about US$ 1 billion, with additional operating costs running into hundreds of millions of dollars each year[65].

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[62] Taken from *The Economics of Ecosystem Services (2007) Interim Report* and Danièle Perrot-Maître (September 2006) *The Vittel payments for ecosystem services: a "perfect" PES case* http://www.iied.org/pubs/pdfs/G00388.pdf

[63] Wunder, S. (2005). *Payments for Environmental Services: Some Nuts and Bolts.* Occasional Paper No.42. Bogor: CIFOR.

[64] Websites featuring Citigroup's ecosystem services
http://www.prnewswire.co.uk/cgi/news/release?id=142963
http://www.mongabay.com/external/citigroup_ran.htm

[65] Melbourne water supply web pages
http://www.melbournewater.com.au/content/water_storages/water_supply/water_catchments.asp?bhcp=1

MANAGED REALIGNMENT/HABITAT CREATION

Freiston Shore, the Wash, Lincolnshire - 66ha site, realigned August 2002
In 1983, HM Prison Service (HMP) claimed 66ha of intertidal habitat to gain land for arable production by building a new seaward defence. During the 1990s, the Environment Agency identified this 1,750m stretch of sea wall owned by HMP as at high risk of failure, and following a cost benefit analysis decided to strengthen the old, landward, bank in order to form the flood defence. The RSPB was very keen to take this opportunity to realign defences and recreate intertidal habitats, and, following discussions with the Environment Agency, English Nature and HMP, acquired the land.

According to Nottage and Robertson, (2005), the **capital costs** of £1.98 million were raised from the EA's flood defence budget, as well as contributions from DEFRA and the Lincolnshire Flood Defence Committee. The RSPB spent £150,000 to purchase the realignment site, and 15ha adjacent to it. Site maintenance is funded through the income from the DEFRA Countryside Stewardship scheme (£34,500 per annum for 20 years). £400,000 was allocated for monitoring (DEFRA contributed some 45%).

A project partnership of EA, RSPB, HMP, Boston Borough Council and Lincolnshire County Council obtained almost £800,000 of match funding from the EU 'Objective 5b' initiative. This fund was used to employ two project officers for three years, profile the adjacent saline lagoon, and create facilities aimed at increasing visitor appeal including a cycle track, two new car parks, signs, and a bird hide.

An initial four-year environmental **monitoring programme** of the site, and adjacent intertidal habitats, has recently concluded[66]. Some of the highlights include: successful salt marsh vegetation establishment and spread; the realignment site acting as a fish nursery for commercially important species; and water bird usage increasing significantly following the breach. Visitor numbers to the RSPB reserve increased from 11,000 pre-breach to 57,000 in 2003/04. It is estimated that the site supports 4 full time equivalent jobs in local businesses.

AGRI-ENVIRONMENT SCHEMES

1.1 Agri-environment schemes (AES) in Germany:
Bundesamt fur Naturshutz (or BfN, the German Federal Nature Conservation Agency) reports that the implementation of AES at the regional or Lander level provides a wide variety of measures with different environmental objectives[67]. Biodiversity benefits considerably from agri-environmental schemes that provide incentives to farmers to maintain traditional land use patterns. The use of flat-rate payments and self-selection are leading to a concentration of support in less favoured areas, where farms tend to be the ones with higher biodiversity. Besides biodiversity, the mitigation of greenhouse gas emissions is now becoming a key objective of AES in Germany, in this respect it is important to ensure maximum synergy and minimum conflict with biodiversity objectives.
Positive findings:
▪ AES represent important instruments for the long-term development of increasingly scarae habitats such species rich grassland as well as contributing to protection of endangered species.
▪ AES are a crucial instrument for the preservation of traditional landscapes and agricultural systems such as orchards. These represent important habitats for a multitude of animal and plant species and which are important in maintaining the viability of rural areas.
AES with well designed biodiversity measures have achieved success in conserving wild plants and endangered species on arable land.

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[66] Brown, S.L. *et al* (2007). *Wash Banks Flood Defence Scheme, Freiston Environmental Monitoring 2002-2006.* Four year report to the Environment Agency. NERC Centre for Ecology and Hydrology, Dorset.
[67] http://encanet.eu/home/uplands/media/ENCAstatement_6_2010_CAP_01.pdf

Question 6: What are the implications of emerging international targets for 2020 and beyond?

In October 2010, the new CBD Nagoya Biodiversity Compact was adopted[68]. The CBD Strategic Plan sets the international policy framework for biodiversity for the next decade and beyond. On 15 March 2010, the Environment Council of Europe agreed a new long-term vision and mid-term headline target for biodiversity beyond 2010:

Vision: by 2050 European Union biodiversity and the ecosystem services it provides – its natural capital – are protected, valued and appropriately restored for biodiversity's intrinsic value and for their essential contribution to human wellbeing and economic prosperity, and so that catastrophic changes caused by the loss of biodiversity are avoided;
Target: To halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, restore them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss. The European Commission launched its consultation[69] on the post-2010 EU Biodiversity Strategy in September.

The implications of the revised international targets for 2020 and beyond are that there will be a renewed global commitment to biodiversity and ecosystems, and the development of a new framework for biodiversity. The new framework retains the objective to halt the loss of biodiversity and places a new emphasis on ecosystem services (the natural capital that biodiversity can provide for us) and restoration. The challenge remains to achieve an integrated approach to environmental management that reflects the complexity of environmental systems and their interactions, and the value of our natural resources to social and economic development, and the pressures posed by natural limits and climate change.

Addressing this challenge will require:
- Concerted and focussed effort on our best and most vulnerable habitats and species with appropriate investment, management and monitoring in place
- Effective implementation of current biodiversity conservation regulations
- Government, business and society must value biodiversity and ecosystems for the services they provide and invest in the management of these systems so that future generations are not short-changed
- Co-ordinated research and monitoring to improve knowledge and understanding of biodiversity ecosystems and ecosystem services
- Wales to play an active part in conserving biodiversity and ecosystems in other countries for ethical reasons and because we depend on their services and products, e.g. for climate regulation or medicines.

A number of emerging mechanisms are being developed that will support and strengthen those mechanisms that we had in place before the 2010 target, and help inform the development and the delivery of the NEF. Examples of these include:
- The new agri-environment scheme Glastir. This includes a target element due to start in 2013 which aims to deliver multiple objectives including species, habitats, carbon, water and landscape. Glastir will include delivery of the new WAG target for 100,000ha of new woodland over 20 years.
- The implementation of the Marine and Access to the Coast Act (2009) and the development of Marine Protected Areas and Marine Spatial Planning.
- The Network Environment Region initiative aimed at integrating biodiversity and ecosystems into the Spatial Planning using tools to embed green and blue infrastructure alongside planning for grey infrastructure.

[68] CBD COP 10 http://www.cbd.int/cop10/
[69] European Commission consultation on future options for biodiversity policy: http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/1096&format=HTML&aged=0&language=EN&guiLanguage=en

Mechanisms are also being developed to strengthen our current approach to biodiversity conservation, and to provide quality advice and information for the development and implementation of the NEF. These include:

- The development of Wales BAP Groups including Ecosystem Groups, Species Expert Groups and Species Lead Partners for Wales. These expert groups and individuals are currently identifying biodiversity priority actions, assigning responsibility and developing work programmes.
- The Special Site Project has been set up to achieve favourable condition of designated sites, to meet targets outlined in the ESW.
- A review of the prevention and investigation of Wildlife Crime in Wales (2010) has led to a number of recommendations that will lead to more explicit focus on biodiversity, including a recognition of our responsibility in preventing the loss of global biodiversity.
- A new fund for biodiversity.

The reform of European Policy will be critical to meeting future targets. The review of the Common Agricultural Policy, the Common Fisheries Policy and the Cohesion Funds is especially important. There is an opportunity to ensure that new incentives and policies support implementation of existing global and European biodiversity commitments such as the CBD and the associated Habitats Directive.

Maintaining and Developing the Evidence Base

It is vital that any new approach is based on the right expertise, advice and information. To meet future biodiversity targets for Wales, we will need to continue to invest in and develop our understanding of biodiversity, ecosystems and ecosystem services, including impacts and dependencies. We need to improve our baseline data for biodiversity (especially in the marine environment), monitor progress and report on action taken. We must invest in the expertise to secure future monitoring, surveillance and interpretation of data. This will form the essential evidence base upon which informed decisions can be made.

Sea and landscape scale action for biodiversity and climate change

We know that the pressures on biodiversity are broad and often cumulative. Climate change is potentially the greatest long term threat affecting biodiversity and some species may struggle to survive. Conserving and restoring biodiversity at a sea and landscape scale will help species adapt; it offers opportunities to secure and sustain ecosystem services which are vital to people and wildlife and critical to achieving a coherent and resilient ecological network. These services include climate change mitigation and adaptation. Given the uncertainty surrounding the impacts of climate change and how biodiversity will change, it seems logical to conserve current ecosystems and wildlife to "maximise future options and improve our chances of achieving health and prosperity for ourselves and our children"[70].

Involving people

Action on the scale required to meet the new targets will mean changes in attitudes and behaviour at all levels of civil society, Government and business. It involves reaching out to new partners and engaging with stakeholders who can make a difference, especially the private sector. Communication is an essential element of change and can only be achieved if it is planned and coordinated strategically but delivered locally, through the engagement of people. It is important to galvanise local government, farmers and other landowners and managers, statutory organisations, voluntary groups and organisations, and individuals. It will be equally important to integrate new values, tools and knowledge into the education system, from compulsory education to colleges and universities, professional development and special interest courses. One of the challenges will be to communicate with all sectors of society using a language that people can relate to and understand. Real change cannot be effective without public support and action.

[70] DEFRA, 2010 *Making Space for Nature: A review of England's Wildlife Sites and Ecological Network* http://www.defra.gov.uk/environment/biodiversity/documents/201009space-for-nature.pdf

Conclusion

We can contribute towards new targets by introducing the new mechanisms and improving others so that they restore and safeguard ecosystems, and manage them for the services they deliver **coupled with** improved implementation of, and investment in, the current mechanisms for biodiversity conservation. This package of responses, however, may not be enough to address the underlying causes of biodiversity loss linked strongly to the current economic framework, demographics and consumption patterns/levels in Wales. Wales now has the opportunity to demonstrate that by valuing natural capital (including biodiversity) we can make more informed decisions that make Wales a healthier, attractive place to live, visit or establish a business, and we can sustain vital services for future generations.

Whilst the devolved administrations develop new approaches to environmental management, including scope for legislative change, it will be essential to ensure that arrangements are maintained and/or established for cross-border working. CCW recognises the commonality of the natural environment along the Marches, the Severn and Dee Estuaries; the linkages of natural assets, processes and features between Wales and England; and the widespread use, particularly in England, of natural heritage services and resources originating from Wales. The natural heritage of England cannot and should not be considered in isolation from that of Wales: CCW looks forward to working closely with English Authorities and our sister agencies in England towards a common, integrated and complimentary approach to conserve and enhance our shared natural environment. In addition, we will continue to implement requirements under European legislation and monitor them at a Member State level.

Although this evidence responds to the failure to meet biodiversity targets, it is important to note progress made and acknowledge the challenges and opportunities for improving delivery.

Annex 1: Written Cabinet Statement on Biodiversity, January 2010

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

WRITTEN STATEMENT BY THE
WELSH ASSEMBLY GOVERNMENT

Title: **Biodiversity**

Date: **18 January 2010**

By: **Jane Davidson, Minister for the Environment, Sustainability and Housing**

The UN has declared 2010 the International Year of Biodiversity (IYB). Throughout the year countless initiatives will be organized to disseminate information, promote the protection of biodiversity and encourage organizations, institutions, companies and individuals to take direct action to reduce the constant loss of biological diversity worldwide. Details can be found at: http://www.countdown2010.net/year-biodiversity.

The Environment Strategy for Wales includes three key outcomes for biodiversity:

Outcome 19 The loss of biodiversity has been halted and we can see a definite recovery in the number, range and genetic diversity of species, including those species that need very specific conditions to survive

Outcome 20 The wider environment is more favourable to biodiversity through appropriate management, reduced habitat fragmentation and increased extent and interconnectivity of habitats

Outcome 21 Sites of international, Welsh and local importance are in favourable condition to support the species and habitats for which they have been identified.

Alongside these outcomes the Assembly Government has committed itself to two international and one national target in relation to 2010:

- Convention on Biological Diversity (CBD) commitment significantly to reduce the current rate of biodiversity loss by 2010

- EU commitment to halt the loss of biodiversity by 2010

- ESW Target 32: Sites of international, national and local importance in Wales should be in favourable condition to support the species and habitats for which they have been identified. By 2010, 95 per cent of international sites in favourable condition; by 2015, 95 per cent of Welsh SSSIs in favourable condition and by 2026, all sites to be in favourable condition.

Biodiversity enhancement and protection is a key part of our commitment as a Government to sustainable development.

The Welsh Assembly Government has taken a positive stance to promoting action on biodiversity, working with all partners who have a role to play. In particular, we have made considerable progress in our Biodiversity Action Planning Process and we have new legislative powers through the Natural Environment and Rural Communities (NERC) Act 2006 (which places a Biodiversity Duty on all public bodies) and the Marine and Coastal Access Act 2009. Real progress has been made on the ground for important habitats and species such as Arable Field Margins, Aquifer-fed Fluctuating Water Bodies, Deptford Pink, Sand Lizard, and Lesser Horseshoe Bat.

Existing positive actions including the following have been taken:

- **Environment Strategy for Wales**
  Working towards the Environment Strategy target to bring designated sites into favourable condition by putting in place an Actions Database for international sites, Sites of Special Scientific Interest (SSSI) and other protected sites. During 2008/09, actions data has been entered for further sites, including all those sites/units identified as being in public or voluntary sector ownership, the extranet infrastructure and software development has been completed to enable key partners to view site 'action' data and respond to develop and agree work programmes and spreadsheets have been shared with the National Trust, Environment Agency, Forestry Commission, National Parks, RSPB, Wildlife Trusts and a number of WAG departments. Implementation of key actions has begun for a wide range of actions

- **Biodiversity Action Plans Wales**
  The Wales Biodiversity Partnership (WBP) has developed and implemented structures and processes to identify actions to meet its new BAP targets for Wales (post UK BAP review) and this information is being sharing the Biodiversity Action Recording System (BARS). Nine new ecosystem groups have been established, with involvement of a wide range of stakeholders, supported by specialist groups for Species, Policy and None Native Invasive Species. A number of organisations are improving their use of BARS and LRC services including FCW, CCW and EAW.

- **Local Area Biodiversity Network**
  Wales has complete coverage from both Local Biodiversity Action Plan Partnerships, which implement the action above, and Local Record Centres, which hold, process and disseminate the biodiversity data needed to support this work. All BAP Partnerships are supported by Local Authorities and National Park Authorities and Wales also has Biodiversity Champions at Cabinet level in each Local Authority and National Park Authority, who lead and champion a range of biodiversity action.

- **Existing agri-environment schemes**
  In 2010 the Sustainable Land Management scheme Tir Gofal will have a total area of 417,725 hectares under positive management, of which 198,480 hectares is identified as Biodiversity Action Plan habitat, under restoration, management or creation management. In addition 435km of hedgerows are under positive management. The area of land farmed organically in Wales has increase to nearly 10% in 2008 supported by the Welsh Assembly Government. The prohibition/reduced use of chemical pesticides and inorganic fertilisers, sympathetic management of non-cropped habitats and the preservation of mixed farming have numerous benefits to include contributing to populations of rare weeds, habitat for wild birds associated with hedgerows and field margins and greater floral diversity and sheltering habitat.

- **The 'Works' project at Ebbw Vale**
  Following the closure of the Ebbw Vale Steel Works the former Welsh Development Agency and Blaenau Gwent County Borough Council commissioned a masterplan. This set out how the 75 hectare site could become a vibrant new urban quarter for Ebbw Vale, creating new opportunities, raising aspirations and creating a step change in the social and economic prospects for Blaenau Gwent. At the outset of the masterplanning process, sustainable

development was established as an overarching principle for the project. This included in the reclamation design which has become a zero waste project, and will create a new wetland park through the centre of the site, receiving water from the development areas. The reclamation of this site has already turned a barren steelworks site into a series of wetlands, species rich grasslands and new woodland areas. This was designed and implemented in collaboration with CCW, Environment Agency Wales, Gwent Wildlife Trust and other local stakeholders.

- **Valleys Regional Park**
  This vision provides an integrated approach to the planning and delivery of environment, heritage and tourism activity across the Valleys of South Wales. Biodiversity protection and enhancement is a fundamental element of the programme within the wider sustainable approach. Specific examples of the work includes: an agreed collaborative action plan developed and "owned" by more than 30 separate organisations (including 14 local authorities) which have agreed to work collaboratively across the Valleys, which includes a range of biodiversity objectives; 42M secured for tourism enhancement related to the natural environment, including significant match funding from the Heads of the Valleys and Western Valleys SRA Programmes; all projects approved as part of the programme are required to submit a sustainable development appraisal which must identify potential risks to biodiversity and actions to reduce the risks, and also biodiversity opportunities.

However, despite all this positive action, it is clear that the work to date has not been enough to enable us to reach the important and challenging targets set for biodiversity. We are not alone in struggling with the challenge of biodiversity. No other country will meet the targets set by the Convention on Biological Diversity and the European Union for 2010.

The Welsh Assembly Government is therefore taking the opportunity over the coming year fundamentally to refresh our approach to Biodiversity and Nature Conservation by reviewing the ways in which we are currently tackling these aims and objectives.

Our habitats face especial challenges going forward, not least from the changing climate. Our traditional focus on small sites and species protection will need to develop to look at the wider habitat as a whole and creating places that are resilient to change or which enable species to move or adapt. A truly sustainable approach will be to address climate change and habitat together, managing land for the services it provides. For example, almost all the actions that need to be taken to keep carbon in soil or to arrest flood pressures will also benefit biodiversity, while healthy eco-systems have more potential to adapt to climate change and ensure continued provision of critical ecosystems services such as crop pollination. This holistic approach is the basis for much of the work we have developed over the past year, most notably the proposals contained in the Glas Tir scheme.

I want to work with all our partners to develop a new Natural Environment Framework. In order to carry out this work we will build on existing strong and positive collaborative partnerships by working closely the public, business and voluntary sector. In September 2009 I launched, with the Wales Biodiversity Partnership, a review of the targets and our successes and failures so far and the reasons behind them. I will be hosting a major conference on biodiversity in September 2010 which will bring together ideas and best practice and consider both the positive actions achieved so far and what needs to be done differently.

By that time we will also have seen progress with the following actions due to place during 2010:

- **Marine Protected areas**
  During 2010 we will develop site selection criteria and methodology, incorporating ecological, social and economic information to ensure that sites are chosen to maximise ecological and socio-economic benefits while minimising conflicts with different uses of the sea as far as possible. Data collection and collation has already begun.

- **Fisheries**
  The vision of the Wales Fisheries Strategy will support the development of viable and

sustainable fisheries in Wales as an integral part of coherent policies for safeguarding the environment. The Welsh Assembly Government and the Commercial Fisheries, Aquaculture, Recreational Sea Angling and Inland Fisheries sectors, in partnership with fisheries management and nature conservation representatives, have developed an Implementation Plan to achieve the goals of the Strategy.
The Strategy and the Implementation Plan endorse an ecosystem-based approach to managing Welsh fisheries, to ensure that the benefits from fishing are high while its direct and indirect impacts upon aquatic ecosystems are low and not detrimental to ecosystem functions and biodiversity.
The Implementation Plan commits stakeholders to undertaking research on stock levels, movements and lifecycles for the main target species for the Welsh industry, as well as on the level and impact of current fishing effort. The results of this research will be vital in implementing effective, ecosystem-based fisheries management. This research has begun and will continue over the coming years.

- **Glastir**
  The new scheme will have two elements, an all-Wales element and a higher level, focussed element. The all-Wales element will be open to all farmers whose land is IACS registered (minimum eligible area is 3 hectares) and who have control over the land for the scheme period (5 years). Farmers who make use of common land as part of their farm enterprise will be able to enter this land into the all-Wales element of Glastir. The new scheme will provide opportunities for land managers to change their current practices in a way that will enhance the delivery of ecosystem services outputs in addition to ensuring that they maintain and enhance the biodiversity and visual value of the land that they manage. The overall objective of the basic scheme is to maintain and improve the environmental value of 80% of farmland in Wales.
  The entry scheme is intended to provide an entry level agri-environment scheme, with a simplified administrative framework and output or outcome based prescriptions, which will allow far larger numbers of farmers and far greater areas of farmland to be brought under agri-environmental management. It provides support for farmers to protect wildlife habitats and landscape features.
  The targeted element will be spatially or thematically targeted. It will be a part farm scheme, providing capital and maintenance payments. It will seek to deliver actions such as soil carbon conservation and the sequestration of carbon, water quality improvement, flood risk management and strategic access delivery which are better delivered, and deliver optimal outcomes, at a landscape or catchment rather than individual farm scale. In general terms, issues that require a complex management response will tend to be dealt with through the advanced scheme. Additionally, actions to increase biodiversity value and maintain the historic environment, either collaboratively or on an individual farm will also be supported.

- **Economy and Transport**
  DE&T recognises Sustainable Development as a central organising principle within its policies and activities. To embed the necessary cultural change and ownership at all levels of DE&T, we are putting in place the Sustainable Development Management Group. The Sustainable Development Management Group will lead on developing and mainstreaming sustainable development across their business areas. This group will be supported by a team of Environmental and SD practitioners.
  The Department for the Economy and Transport is very aware of its duties under the NERC Act 2006. There will be revised and re-issued detailed guidance on biodiversity to ensure that all our actions work towards the protection and enhancement of species and habitats. The Guidelines are supported by the Sustainable Development Delivery team, two of whom are professional ecologists, available to provide project managers with advice on how best to integrate SD, environmental and biodiverity issues into their projects.

- **Spatial Plan**
  DE&T, CCW, the Environment Agency and other WAG departments are currently involved in the development of work on green infrastructure under the Welsh Assembly Government Spatial Plan colleagues. This approach seeks to look at the economic, social and environmental functions of the natural environment at a landscape scale, looking at

ecosystem services including; carbon sequestration and storage, management of flood risk and ecological connectivity to help biodiversity adapt to climate change. We are currently looking for opportunities to demonstrate this approach within our Infrastructure, Property and Regeneration activity.

- **River basin management Plans**
  I today launched the River Basin Management Plans for which a key aim is the ensuring good water quality to support healthy ecosystems and biodiversity. In Wales we are surrounded by approx 1600km of coastline with 70% already within a Special Area of Conservation! To add to this we have a network of approx 7700km of rivers complemented by our lakes and groundwater. Key actions have been included in the River Basin Management Plans to help bring internationally protected nature conservation sites into favorable condition.

- **FRM/ Shoreline Management plans**
  The Water Framework Directive requires Member States to aim to meet good status in all water bodies by 2015. As the Water Framework Directive is a framework Directive, it incorporates measures and standards from within other Directives. These include standards and objectives for "Protected Areas". There are two key issues relating to water dependent N2K protected areas not achieving favourable conservation status or their WFD objectives which have implications for Flood and Coastal Risk Management operations. These issues relate to loss of intertidal habitats on sections of the coast where the movement of the shoreline is constrained (Coastal Squeeze) and water level issues on rivers and wetlands (Water Levels). Before Christmas I approved the following actions aimed at addressing the above: the creation of a National Habitat Creation/Remediation Programme for Wales to be led by Environment Agency Wales to develop proposals to offset the impacts of the implementation of Flood and Coastal Risk Management policies on N2K sites, the funding of compensatory habitat and site remediation identified in the Programme from the Assembly Government's flood and coastal risk management budget and that the Environment Agency, as the responsible drainage authority, implement actions to achieve favourable condition for 10 sites.

By the end of 2010 I will, in collaboration with other Ministers, publish a *Natural Environment Framework*, which will outline the new ways in which we will be addressing these challenges especially in the light of climate change.

Annex 2: Environmental Impact Assessment Directive Regulations

- Nuclear reactors (Environmental Impact Assessment for decommissioning) Regulations 1999: http://www.opsi.gov.uk/si/si1999/19992892.htm
- Environmental Impact Assessment (land drainage improvement works) regulations 1999: http://www.opsi.gov.uk/si/si1999/19991783.htm
- Environmental Impact Assessment (Forestry) England and Wales Regulation 1999: http://www.opsi.gov.uk/si/si1999/19992228.htm
- Public Gas Transport Pipeline Works (Environmental Impact Assessment) Regulations 1999: http://www.opsi.gov.uk/si/si1999/19991672.htm
- Transport and Works (Assessment of Environmental Effect) England and Wales Regulations 2000: http://opsi.gov.uk/si/si2000/20003199.htm
- Environmental impact assessment (fish farming in marine waters) regulations 1999: http://www.opsi.gov.uk/si/si1999/19990367.htm
- Offshore Petroleum Production and Pipelines (Assessment of Environmental Effects) Regulations: 1999: http://www.opsi.gov.uk/si/si1999/19990360.htm
- Pipeline Works (Environmental Impact Assessment) Regulations 2000: http://www.opsi.gov.uk/si/si2000/20001928.htm
- The Harbour Works (Environmental Impact Assessment) Regulations 1999: http://www.opsi.gov.uk/si/si1999/19993445.htm
- The Electricity Works (Environmental Impact Assessment) Regulations 2000: http://www.opsi.gov.uk/si/si2000/20001927.htm
- The Highways (Assessment of Environmental Effects) Regulations 1999: http://www.opsi.gov.uk/si/si1999/uksi_19990369_en.pdf
- Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations: 1999 http://www.opsi.gov.uk/si/si1999/19990293.htm

Annex 3: Progress Report on the Special Sites project

CCW's Special Sites Project has spanned financial years 07/08, 08/09, 09/10. The WBP subgroup concluded that our highest short-term priority was to share practical information about the state of individual sites and the actions needed to get them into favourable condition.

Special Sites Project: progress 2007-2010	
Year	Achievements to date
07/08	▪ Management Plans for all Natura 2000 sites (SACS and SPAs) written and published on CCW's website[71] ▪ Divided SAC and SPA into practical 'management units' (e.g. landholdings, or marine units) to enable more precise communication about the needs of different parts of these often large sites. All this data captured in CCW Actions database.
08/09	▪ Database of the actions required on all units within SSSIs managed by public and voluntary sector bodies, to enable all partner organisations to understand, negotiate and plan their contribution to meeting the WES targets. ▪ Spreadsheet information on actions shared with partner organisations to facilitate work programming and budgeting.
09/10	▪ Actions data entry was circa 98% on the 31st of March 2010, with some marine data still to be entered. All sites are now unitised. Spatial and actions data for all sites entered in 2009/2010 will be available to extranet partners from July 2010 (Action 1 (a) WES Action Plan 2) ▪ Data sets have been exchanged with Environment Agency Wales, the National Trust (NT), the Ministry of Defence (MoD), and the Welsh Assembly Government (WAG). CCW has used the data (evidence) to plan action in 2009/2010 and 2010/2011. 7580 Hectares (Ha) of CCW's Actions were completed in year 2009-2010 (FY) (~3% terrestrial sites area) of which 4250Ha were Management Agreement Negotiations on better terms, and 1940Ha were new management agreements. In addition 1390Ha of actions were progressed and 5640Ha of investigation actions were completed. (Action 1 (b) WES Action Plan 2) ▪ The technical delay in the database being available over the extranet has led to a delay in the ability of partners to easily engage with the work planning process. This will now be the focus for planning effort for the Wales Biodiversity Partnership Outcome 21 Group during 2010. (Action 1 (c) WES Action Plan 2) ▪ Data used to inform planning and policy e.g. River Basin Management Planning process.
10/11 to date	- extranet open to partners from March and working to plan - WBP partners now starting to plan site actions delivery in earnest - data shared with additional partners: Forestry Commission, National Trust, Wildlife Trusts, RSPB, Welsh Water, British Waterways. - So far in 2010-11 CCW has delivered sites actions on 1,600Ha, with actions underway on a further 4,500Ha

[71] http://www.ccw.gov.uk/landscape--wildlife/protecting-our-landscape/special-sites-project.aspx