This paper assesses the progress made in accomplishing the actions outlined in the Welsh Government’s First Environment Strategy Action Plan.

A comparison is drawn between this document and the Second Environment Strategy Action Plan to consider the progress made.
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Environment Strategy and Action Plans: Progress Made

Research Paper

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Executive Summary

The *Environment Strategy for Wales* was published in May 2006. It is the Welsh Assembly Government’s (Welsh Government’s) long term strategy for the environment of Wales, setting the strategic direction for the next 20 years. The purpose of the Strategy is to provide the framework within which to achieve an environment which is clean, healthy, biologically diverse and valued by the people of Wales. The Strategy contains the principles upon which the Welsh Government will act, while the specific actions that will be taken are listed in two Action Plans, published in 2006 and 2008. These Action Plans contain the commitments that the Welsh Government has made and which are seen as being sufficient to safeguard the environment.

This research paper considers the progress that has been made in the three years since the publication of the first Action Plan in May 2006. This analysis shows that 39 out of 62 actions from the first Action Plan have now been completed. However, the distribution of completed actions is not even across the various themes of the Environment Strategy. Actions relating to the *Historic Environment* and *Partnership* have been entirely completed while actions relating to *Environmental Protection*, *Flood and Water Management* and *Research and Evidence* are less than 50 per cent complete.

This paper also considers the coherence of the two Action Plans and the varying themes that run through them. This coherence appears to be strong in the case of some themes such as *Biodiversity*, with completed actions in the first Action Plan leading to complementary, progressive actions in the second Action Plan. With other themes this is not so clear. Both the first and second Action Plans feature many of the same actions relating to *Flood and Water Management*, although the two documents are complementary. Finally some themes have been rendered obsolete through other pieces of legislation. This is particularly true for the Marine theme, the actions within which will be largely superseded by the *Marine and Coastal Access Bill*.

The research paper reaches the following conclusions:

- While the two Environment Strategy Action Plans are complementary, there is a lack of coherence between the documents. This manifests in both the degree of overlap between actions (as in the case of those relating to flooding) and the inclusion of actions which are clearly in the domain of other strategies (such as those relating to climate change).

- The current reporting system for Environment Strategies actions relies on annual progress reports. However, other reporting frameworks offer a more transparent and informative mechanism by which to provide updates on current and past actions. The Biodiversity Action Reporting System is highlighted as an example in which bilingual information is available on the nature of the action, along with contact details for the lead partners, a simple update on progress and a facility for adding more extensive reports.

- The current mechanism for reporting on indicators, through the StatsWales website, is clear and easy to follow. This system could be adopted for other strategic areas which have associated indicators, such as the Sustainable Development Scheme.
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Environment Strategy and Action Plans: Progress Made

1 Introduction

The Environment Strategy for Wales was published in May 2006, following a long period of consultation. It is the Welsh Assembly Government’s (Welsh Government’s) long term strategy for the environment of Wales, setting the strategic direction for the next 20 years. The strategy is supported by a series of regularly updated action plans and a policy map setting out the key actions that will be taken to deliver the outcomes in the Strategy.

While sustainable development is an integral part of the Welsh Government’s constitution, there is no such obligation to create specific policy relating to the environment. However, the decision was taken by the government in 2006 to publish an Environment Strategy in order to focus environmental policy. This research paper sets out an assessment of progress, three years after the publication of the first Strategy and Action Plan.

Environment Strategy (2006)

The Environment Strategy (ES) states:

The purpose of the Strategy is to provide the framework within which to achieve an environment which is clean, healthy, biologically diverse and valued by the people of Wales. By 2026, we want to see our distinctive Welsh environment thriving and contributing to the economic and social wellbeing and health of all of the people of Wales.

The ES focuses on five areas with some overlapping content:

- **Addressing climate change**

  The ES outlines options for reducing greenhouse gas emissions to mitigate the effects of climate change, particularly in the fields of transport and the development of alternative fuels and energy sources. Focus is also given to the pursuit of efficiency, in terms of energy use and procurement. Specific mention is made of the preservation of carbon sinks such as agricultural soil.

  In terms of adaptation, resilience to increased severe weather, particularly flooding, storminess and increased thermal stress (both as a health hazard for vulnerable groups and as a discomfort for everyone else) are highlighted. Resource management is also a priority, with water supplies potentially under threat from warmer weather and decreased precipitation. Climate change will also manifest through changes in the nation’s flora and fauna, including those involved in agriculture and forestry as well as wildlife.

- **Sustainable resource use**

  Waste reduction and appropriate measures to deal with the waste that is produced are seen as essential to a sustainable Wales. This is to be carried out in conjunction with the *Wise about Waste* strategy and the *Business and Environment Action Plan*. The management of water resources is also specified as a priority, in addition to considerations of the impacts of climate change.
change. Soil management also occurs under the banner of sustainability as well as climate change, with details of cataloguing and management of areas vulnerable to, for example, acidification. The sustainable extraction and use of mineral reserves and aggregates are discussed with reference to the methods used in extraction of those resources and measures that can be taken to minimise the need for them.

- **Distinctive biodiversity, landscapes and seascapes**

Three measures are outlined to combat the declining biodiversity in Wales: (i) a species-targeted approach which will focus on conserving those species which are particularly at risk (e.g. habitat specialists), (ii) a habitat-targeted approach which aligns Welsh policy with the EU Habitats Directive and (iii) a connectivity approach which seeks to link those protected sites to increase their resilience. The growing recognition of the importance of marine ecosystems is reflected in the Strategy. Potential risks from climate change including sea level rise, invasion by alien species and acidification are highlighted alongside the more direct anthropogenic impacts such as destructive fishing practices. Finally, the natural and artificial environment itself is addressed and attention is called to the "contribution it makes to our identity as individuals and communities". An intention is stated to reduce damaging practises, promoting practices that enhance the environment and increasing our understanding of that environment.

- **Our local environment**

A great deal of emphasis is placed on the importance of the built environment to the wellbeing of the people living there. This takes the form of both maintaining the fabric of the built environment to make it safe, maintaining the cohesion of the built environment to preserve (and, in some cases, re-establish) local communities and ensuring that there is sufficient green space in urban areas. Further to improving the quality of life is the stated aim of reducing “environmental nuisances” such as litter, fly-tipping, graffiti, dog fouling, fly-posting, noise pollution and light pollution. Promoting access both within urban areas and to countryside and coastlines by foot and by bicycle are discussed. Finally, this section provides some details of public awareness campaigns and measures to deal with flooding and coastal erosion.

- **Environmental hazards**

Solutions for remedying the problem of environmental pollution are discussed both in terms of reducing the amount of air and water pollutants entering the environment and the amelioration of contaminated land. Of particular concern are the levels of diffuse pollution\(^6\), given the large areas of agricultural land in Wales. Measures that can be taken to regulate chemical pollution and raise public awareness are discussed. Particular mention is given to radioactive pollution.

**First Environment Strategy Action Plan (2006)**

In addition to the ES, an Environment Strategy Action Plan was also published, stating the actions that were required to achieve the aims set out in the ES. This First Environment Strategy Action Plan\(^7\) (ESAP1) was intended to lay out actions that would complement existing policy commitments in other documents, rather than providing for all environmental actions across the board. ESAP1 was published as a table with 62 actions (complete with milestones and designations of responsibility to different bodies for achieving them) and the outcomes that it was hoped would be achieved. The actions and milestones are listed in Annex 2 and the outcomes are listed in Annex 6.

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\(^6\) Diffuse pollution is that which does not derive from a point source and so is not easily regulated. An example is agricultural fertiliser being washed from fields into nearby water bodies.


In fulfilment of the stated aim that ESAP1 should be “reviewed and updated annually, with completed actions being replaced with new ones and milestones being updated”, one year after the publication of ESAP1, the Welsh Government published a report\(^8\) on the progress that had been made. This report was produced in two parts with the first considering the outcomes that had been specified in ESAP1 and the second considering progress that had been made in achieving particular actions. As the report itself acknowledges, at the time of publication of the progress report:

> In many respects it is too early to be able to detect environmental change as a result of the Strategy.

The lag in both the implementation of the measures outlined in ESAP1 and in the manifestation of environmental effects resulting from those measures means that a single year is insufficient to yield any significant results. As such, part one of the progress report, provides little more than some baseline data (and highlighting where such baseline data does not yet exist). However, part two outlines specific measures that have taken place in the pursuit of the actions in ESAP1. It is this section that has formed the main source of information in documenting the progress in ESAP1 actions which can be found in Annex 2.

Subsequent reporting on progress has been the responsibility of the Welsh Government’s Statistical Directorate through Statswales, who now maintain a website\(^9\) on which can be found the most up-to-date data on each indicator. This website is updated whenever new data becomes available and is supplemented by a Bulletin\(^10\) which is published in July of each year. The Welsh Government will report

> […] against actions in [the second Environment Strategy] action plan, and ongoing actions from the first Action Plan, in a separate report, on an annual basis. This will include commentary on the trends in the indicators.\(^11\)

Such a report has yet to be published but is anticipated for late 2009.


The Second Environment Strategy Action Plan (ESAP2)\(^12\) was published for consultation from 7 July 2008 to 18 August 2008, with the publication of the final action plan on 17 October 2008. Unlike the five themes of ESAP1, ESAP2 was structured around ten themes for consultation with the public:

- Biodiversity
- Marine
- Access (“Access and recreation” in the final ESAP2 document)
- Flood and water management
- Ecosystem services
- Research and evidence
- Historic environment
- Community engagement (“People and the environment” in the final ESAP2 document)

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Partnership

Environmental quality

The results of the consultation (which have yet to be published) were taken into consideration alongside the comments of the Environment Strategy Reference Group (ESRG) to compile the final draft. The ESRG is comprised of 19 representatives of 15 organisations spanning agriculture, business, farming, tourism, conservation and local government and is chaired by Jane Davidson AM, Minister for Environment, Sustainability and Housing.

The original intent in ESAP1 was to create a system in which completed actions would be removed and new actions would be added at each annual review, as suggested in ESAP1:

This Action Plan will be reviewed and updated annually, with completed actions being replaced with new ones and milestones being updated.\textsuperscript{14}

Such a system would have highlighted actions which had not been fulfilled as well as providing a single document in which all of the current actions were contained. A single document would also have homogenised the categories by which actions are classified, making it easier to see progress in different areas. However, ESAP2 is a separate document with a separate structure. The Minister for Environment, Sustainability and Housing announced on the release of ESAP2 that the new action plan:

[...] will not replace the first Action Plan as we will continue to report on those actions that have not yet been completed. This will be done through a document that covers both plans and includes commentary on trends in the indicators.\textsuperscript{15}

**Approach to analysis**

ESAP2 was published with the aim of complementing ESAP1 rather than replacing it\textsuperscript{16}, therefore it should be noted that the presence of a given action or category of actions in the former strategy and their subsequent absence in the latter strategy does not necessarily mean that those actions have ceased to be valid. What is more, some of the issues identified in the first action plan are now being covered by ongoing statutory work (particularly waste management and climate change), rendering superfluous their inclusion in the second action plan.

With these two issues in mind, the goals of this research paper are twofold:

1. To outline the similarities and differences in the approaches of the two Action Plans.
2. To provide, where possible, links to updates on progress of the actions outlined in both plans

To achieve this, each of the actions in ESAP1 is first classified into one of the ten “themes” in ESAP2. This permits a comparison between the strategies in their approaches to each of the themes as well as between particular issues within themes.

\textsuperscript{13} Welsh Assembly Government, *Environment strategy reference group*


2 Progress on the First Environment Strategy Action Plan

The first difficulty encountered when attempting to assess the progress made with the ESAP1 is the absence of a structured reporting system. This topic is covered later in the paper (in Summary and Conclusions). In attempting to assess the success of the actions in ESAP1, documents and statistics describing the outputs from the actions (or, more specifically, the milestones within those actions) were sought. Using the number of milestones for which outputs were available for each action, the Members’ Research Service has classified these actions as follows:

- Complete – Where a tangible output has resulted according to each of the milestones that are outlined the action is considered to be “complete”.
- Partly complete – Where some milestones have been achieved with others remaining unfulfilled it is judged that these actions are only partly complete.
- Some progress – In some cases there has been some progress towards the fulfilment of actions. These actions are incomplete but show evidence of progress. Examples include milestones involving prolonged consultation periods or the enactment of legislation.
- Unclear – Evidence for progress in some milestones was difficult to acquire, leading to uncertainties over whether or not the relevant action had been completed. In other cases the goals set out had been rendered obsolete by subsequent policy documents or strategies with uncertainty over whether or not the newer documents were intended to encompass the action.
- Incomplete – Where there is no evidence of progress the action is considered “incomplete”. Note that actions classified as “partly complete” and “some progress” are also, strictly speaking, incomplete.

The results of this analysis are presented in the table below, summarised across the action themes and for each theme individually.

| Progress with the actions from the First Environment Strategy Action Plan | Number of actions in each section according to the level of completeness |
|---|---|---|---|---|---|---|
| Complete | Partly Complete | Some Progress | Unclear | Incomplete | TOTAL |
| Access & Recreation | 4 | 1 | 1 | 0 | 6 |
| Biodiversity | 7 | 1 | 1 | 0 | 9 |
| Environmental Quality | 5 | 1 | 1 | 0 | 7 |
| Flood & Water management | 2 | 1 | 2 | 0 | 5 |
| Historic Environment | 2 | 1 | 2 | 0 | 5 |
| Marine | 2 | 1 | 0 | 0 | 3 |
| Partnership | 4 | 1 | 0 | 0 | 6 |
| People & Environment | 5 | 1 | 0 | 0 | 7 |
| Research & Evidence | 3 | 3 | 1 | 2 | 9 |
| Unassignable | 5 | 1 | 0 | 0 | 7 |
| **TOTAL** | **39** | **6** | **5** | **9** | **62** |

Note: those actions from ESAP1 that could not be placed in any of the categories from ESAP2 are recorded as “unassignable”.

Source: Members’ Research Service – assessment of progress on actions in ESAP1
Progress with the ESAP1 actions appears to have been quite positive, given the relatively short period of time since the publication of the plan. At least some progress has been made in 58/62 actions (94 per cent) with 39/62 actions being completed (63 per cent). While the overall picture suggested by Figure 1 is one of progress, this is not evenly distributed across the different areas. Only two of the ten categories (Partnership and Historic Environment) have no outstanding actions, while actions relating to Environmental Protection, Flood and Water Management and Research and Evidence are less than 50 per cent complete.
3 Analysis of Themes

This section considers the progress made on actions falling under each of the section headings from ESAP2. While there is some reporting of progress with links to the key documents, a comprehensive guide to progress for each action is located in Annex 2. This section examines the degree of overlap between the two Action Plans and the extent to which accomplishment of ESAP1 actions affects the inclusion or omission of similar actions in ESAP2. For the sake of brevity, particular actions are referred to using the abbreviation for the appropriate action plan followed by a forward slash and then the number of the action (listed in Annex 2 and Annex 3 for ESAP1 and ESAP2, respectively). Thus “Action 3 of the First Environment Strategy Action Plan” is referred to as “ESAP1/3”.

Biodiversity

- **Protection of designated sites** (ESAP1/32, ESAP2/1a, 1b, 1c and 1d) is a topic that is covered in both action plans. ESAP1/32 deals with general details of refocusing spending and monitoring sites of particular conservation importance (internationally designated sites and SSSIs). ESAP2/1 develops on these actions, outlining actions (legislative, governmental and private) and management practises that can be taken to bring sites up to the desired standard.

- ESAP1/39 outlines plans to develop co-existence arrangements for GM crops. However, the 2007 Progress Report states that progress was delayed and that public consultation is imminent. There is no mention of GM crops in ESAP2.

- **Pesticide regulation** is mentioned in ESAP1/40 and “regulatory and voluntary measures” are promised to combat the problem. However, only the voluntary initiative has currently involved this area. The UK Pesticides Strategy\(^\text{17}\) has been published which states an intent to put through legislation (action plan groups have been established for Water, Biodiversity, Amenity, Product Availability and Amateur) which may remedy the problem. No mention is made of pesticides in ESAP2.

- **Landscape scale projects** are mentioned in ESAP1/33 and appear to have produced some substantial outcomes. However, despite the progress report stating that this will be integrated into the “wider work on ecosystem services”, there is little evidence of this in the Ecosystem Services theme of ESAP2. The 2007 Progress Report states that landscape scale thinking is being implemented “in the context of the Wales Spatial Plan”. However, only one out of six Wales Spatial Plan areas (South East Wales) has ecological connectivity as a priority\(^\text{18}\). A similar approach of considering the landscape context of conservation areas is discussed ESAP2/3. This action commits the Welsh Government to provide increased protection for wildlife and habitats “including linking through green connectivity and other mechanisms”.

- **Woodlands for Wales**\(^\text{19}\) has been reviewed, as specified in ESAP1/34, and both the review and an action plan have been published. However, this action plan does not feature in ESAP2.

- A review of **EIA regulations concerning agricultural intensification** (ESAP1/35) has taken place and has been incorporated into the Axis 2 review of the Rural Development Plan.

- The **Wales Biodiversity Partnership**\(^\text{20}\) has been restructured according to ESAP1/36 and has been involved in making progress with actions ESAP1/37 (developing biodiversity

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17 Pesticides Safety Directorate website, [http://www.pesticides.gov.uk/environment.asp?id=70](http://www.pesticides.gov.uk/environment.asp?id=70)
19 Forestry Commission website, [http://www.forestry.gov.uk/forestry/inf4-5nlkt7](http://www.forestry.gov.uk/forestry/inf4-5nlkt7)
20 Wales Biodiversity Partnership website, [http://www.biodiversitywales.org.uk/](http://www.biodiversitywales.org.uk/)
framework) and ESAP1/38 (Wildlife Site Guidance\textsuperscript{21} development) as well as planning how to meet the Wales BAP targets (ESAP2/4).

- **Wildlife crime** was a major feature of the *Wildlife and Countryside Act 1981*\textsuperscript{22}, the legislation which provides the majority of protection for wildlife in the UK. While this was not mentioned in ESAP1, ESAP2/5 sets out a commitment to support enforcement of the rules laid out in the Act.
- Incorporating the Natural Environment and Rural Communities Act Biodiversity Duty\textsuperscript{23} into “all aspects of public spending” is not mentioned in ESAP1 due to the legislation not being enacted until after the publication of that plan but occurs prominently in ESAP2/2.

**Assessment of progress made**

The two Actions Plans contain actions which complement one another and indicate progress. Early emphasis on data collection and inventories of protected sites lays the groundwork for monitoring. The role of the landscape in connecting important conservation areas has been promoted in the academic literature\textsuperscript{24}, though such an approach is absent from all but one of the six Wales Spatial Plan areas\textsuperscript{25}. This integrated approach is also demonstrated through the inclusion (and emphasis in ESAP2) of the biodiversity duty in the *Natural Environment and Rural Communities Act 2006*. The restructured Wales Biodiversity Partnership has not only played a role in accomplishing ESAP1 actions, but also in planning for ESAP2 actions. A push towards greater food production and security in Wales will place a great strain on the environment where conflict arises with agricultural interests, necessitating an early consideration of environmental impact assessments with regards to increased agricultural activity. Elsewhere, the Minister for Rural Affairs has founded the Wales Land Use Climate Change Group with the aim of ensuring that such increases in agricultural productivity do not happen at the expense of carbon reductions\textsuperscript{26}.

**Marine**

- **Devolution of Marine Management** to the Welsh Ministers as part of the consultation on the Marine Bill is covered in ESAP1/46. Section 304 of the *Marine and Coastal Access Bill*\textsuperscript{27}, includes provision for the insertion of two Matters into Field 16 (Sport and Recreation) of Schedule 5 to the *Government of Wales Act 2006*. These Matters permit the Welsh Ministers to create coastal access routes and to secure public access to land for recreation. The Bill completed its progress through the House of Lords on 8 June 2009. It was introduced to the House of Commons on 9 June 2009 and had its Second Reading on 23 June 2009. The development of actions that could be taken with such devolved responsibility is specified in ESAP2/6.
- **The intention to develop a fisheries strategy is outlined** in ESAP1/48 and this strategy, the Wales Fisheries Strategy, was published in July 2008\textsuperscript{28}, fulfilling that action. There is no mention of fisheries in ESAP2.


\textsuperscript{22}OPSI, *Wildlife and Countryside Act 1981* (c. 69).

\textsuperscript{23}OPSI, *Natural Environment and Rural Communities Act 2006* (c. 16).


\textsuperscript{27}Defra, *Marine and Coastal Access Bill*.

\textsuperscript{28}Welsh Assembly Government, *Wales Fisheries Strategy*. 

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Integrated Coastal Zone Management (ICZM) features in ESAP1/47 and led to the development of the ICZM Strategy in March 2007, fulfilling that action. While there is no explicit mention of ICZM in ESAP2, some development of marine planning schemes is discussed in ESAP2/7 in the context of an “ecosystem approach” and the use of “zoning and sensitivity mapping”.

Highly Protected Marine Reserves (HPMRs) occur in ESAP2/8 and constitute part of the action required by the nascent Marine and Coastal Access Bill. There are clear parallels in thinking between the “ecological coherence” outlined in for HPMRs in this action and the concepts of “ecological connectivity” that are encouraged in terrestrial habitats by ESAP1/33 and ESAP2/3.

Assessment of progress made

Progress on actions from ESAP1 is clear in the publication of two strategies: the Wales Fisheries Strategy and the Integrated Coastal Zone Management Strategy. A theme of both strategies is the acquisition of increased independence for decision-making in Welsh coastal management and developing strategies on how to use that independence. Fisheries can be considered more sensitive than agriculture when it comes to the debate over food security vs. food production. Short-sighted and ill-informed fisheries practises have resulted in substantial damage to many fish stocks, highlighting the dangers associated with prioritising production over security (e.g., 25 per cent of global fish stocks are currently overexploited, depleted or recovering from depletion). The fact that two of the main goals for the Wales Fisheries Strategy are the management of healthy fish stocks while maintaining their contribution to the economy seems to indicate recognition of this threat. Specific mention of marine conservation in the form of HPMRs represents an extension of the landscape approach that features in ESAP1/33 and ESAP2/3.

Access and Recreation

- Pilot projects (for example the Countryside Council for Wales’ (CCW) “Come Outside” project) announced in ESAP1/26 for improving access to the countryside are beginning to come to fruition with funding from 2007-08 onwards. This project involves encouraging local communities to engage in outdoor activities with the hope that it will not only improve their health but also provide them with skills that can be used in the conservation and management of green spaces. However, general countryside access does not feature in ESAP2.

- The focus on water-related recreation which formed part of ESAP1/26 has been continued explicitly in ESAP2/10 and has been bolstered by the “Splash” fund (£400,000 in 2008) and the publication of the Strategic Plan for Water Related Recreation (WRR) in Wales in 2008. A petition with 9,893 signatures submitted to the National Assembly for Wales’ Petitions Committee by the Welsh Canoeing Association on 10 April 2008 requested similar kinds of

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30 Marine and Coastal Access Bill [HL], Bill 1 2008-09
33 Welsh Assembly Government, Water Recreation Challenge Fund for Wales, 21 July 2008 [on 17 February 2009]
34 University of Brighton, Strategic Plan for Water Related Recreation (WRR) in Wales, 5 June 2008.
access to inland waters\textsuperscript{35}. This petition called for a legislative clarification of access rights and responsibilities on non-tidal waters.

- **Coastal access** has been specified in ESAP1/27 and resulted in a substantial funding allocation (£1.5 million). In ESAP1 this is designated for the All Wales Coastal Path while ESAP2/11 divides the total budget to give targets for provision for different types of path (cycle/foot).

- ESAP1 placed a great deal of emphasis on the link between **environment and health**. In particular:
  
  - Increasing the awareness of the public of the potential for health benefits that arise from relatively small and inexpensive change to lifestyles (ESAP1/49), a theme continued in ESAP2/12. ESAP2/12 also discusses sustainable transport and exercise a new area supplemented by ESAP2/9b (and discussed further in the *Environmental Quality* theme on transport). The concept of using locally-sourced food to improve diets is also introduced for the first time.
  
  - Funding initiatives through the public sector (ESAP1/50) to demonstrate the links between environment and health.
  
  - Involving outdoor activities in health through an exercise referral scheme (ESAP1/51), which is now operational within all local authorities in Wales. The action also outlines a focus on walking, a theme continued in ESAP2/9a along with cycling.

- **Green space assessments** (ESAP2/13) move the emphasis away from going out of the city to the countryside to bringing countryside closer to people. This specifically builds on the green space toolkit developed by CCW in response to action ESAP1/19\textsuperscript{36}.

**Assessment of progress made**

While some of the pilot projects have yet to report, there is evidence that they have been successful. A substantial amount of funding has been secured and allocated to assist with initiatives and demonstration projects under this heading. While the general countryside access actions have not been continued in ESAP2, those for coastal and water access show strong continuity between the two strategies. Similar continuity is seen in public health initiatives, with links to transport. There is a strong link between green space assessments in ESAP2/13 and the green space toolkit produced by CCW to facilitate their creation/enhancement (ESAP1/19).

\textsuperscript{35} P-03-118, *Welsh Canoeing Association*, 10 April 2008.

\textsuperscript{36} The Greenspace Toolkit was produced for local authorities to provide them with the organisational tools necessary to provide sufficient greenspace in urban areas. This involves both an assessment of current provision and setting targets and standards for further provision.
Flood and Water Management

- ESAP1/12 and ESAP2/14a are identical (word-for-word) in their promise to raise public awareness of flooding.

- ESAP1/14 and ESAP2/14b are almost identical in their promise to implement measures to mitigate flooding and erosion, with ESAP1/13 (identification of measures to mitigate flood risk) informing both.

- ESAP1/15 and ESAP2/14c are effectively identical in promising to ensure that emergency planning for flooding is appropriate and caters for the most at-risk groups. The only difference is the explicit mention of infrastructure in ESAP2/14c. However, it is clear that this was also intended as part of ESAP1/15 as one of the milestones for this action was to “list infrastructure vulnerable to flooding”.

- There is substantial overlap between ESAP2/14b and ESAP2/14d in their commitment to take practical measures to mitigate flooding. ESAP2/14b commits the WAG to

  […] develop and implement programmes of flood and coastal erosion risk management activities, to address increasing risk.

ESAP2/14d commits WAG to

  […] take action to improve the prevention and management of flooding from surface water through a series of pilot studies across Wales.

The different emphasis is subtle and the only other difference is the promise of pilot studies in ESAP2/14d.

- ESAP1/17 discusses the barriers to the adoption of sustainable drainage systems (SuDS) in Wales. Some progress has been made in the general area of SuDS (e.g. the formation of the SuDS Working Party for Wales37), but there is no evidence of progress having been made either through the publication of a report on barriers or an increased uptake as a result. The implementation plan has not, as yet, been published and the SuDS Working Party for Wales’ website has not been updated since January 2006. The draft Flood and Water Management Bill38 published in April 2009 sets out proposals for improved management of flooding and more efficient management of water as pressures increase on industry and water resources. This includes specific proposals on sustainable drainage including proposals for Welsh Ministers to be responsible for drainage systems.

- The relationship between flooding and planning (Technical Advice Note (TAN) 15: Development and Flood Risk) in ESAP1/16 has now been shifted to the Planning for Climate Change consultation39 which will be used to amend the Planning Policy Wales (PPW) document40. The PPW document, supplemented by Technical Advice Notes, provides the strategic policy framework for the preparation of local planning authorities’ development plans.

- The review of the Water Resources Strategy41 by the Environment Agency (EA) (ESAP1/24) has not yet been completed (due to be in place by the end of 2008), and is re-stated in ESAP2/16 (almost verbatim).

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39 Welsh Assembly Government, [Welsh Assembly Government Further Consultation on Planning for Climate Change](http://www.wales.gov.uk)...
Water companies were required to submit Water Resource Plans (ESAP1/24), although this process will not be completed until April 2009. In the meantime WAG will monitor water pricing (ESAP2/17) along with water availability.

The Water Framework Directive (WFD) stakeholder group has been formed (as per ESAP1/25) and the WFD is further involved in ESAP2/15 where a management plan is called for that incorporates both environmental and water resource considerations.

Assessment of progress made

Actions in ESAP1 and ESAP2 in this area (particularly with regards to flooding) are very similar. However, some of the milestones that were initially set in ESAP1 set targets that were not attainable by the time of writing this research paper. The actions from ESAP1 which have not been realised are included in ESAP2 despite the statement that

[...] will not replace the first Action Plan as we will continue to report on those actions that have not yet been completed.

This suggests that the inclusion of the actions for a second time is unnecessary.

Ecosystem Services

While there is no explicit mention of ecosystem services in ESAP1, there are two areas where ecosystem services are included: (i) health benefits from access to the countryside (ESAP1/49-50) and (ii) SuDS (ESAP1/17). As mentioned above, there is limited progress with SuDS, although the draft Flood and Water Management Bill was published in April 2009. More progress has been made with respect to access to the countryside and the results of recent demonstration projects (e.g. CCW’s “Come Outside” project, see below) are due to be published soon. However, there is no mention of what else the environment can provide.

ESAP2 represents a greater appreciation of the broader range of ecosystem services, although the Cambrian Mountains pilot project (ESAP2/18b) only provides for the access to the countryside for motorcyclists.

An “ecosystems assessment framework” (ESAP2/18a) involving a range of stakeholders and conservation groups will benefit management and conservation planning.

Ecosystem services are now included into the Rural Development Plan (RDP) (ESAP2/18c). This relates to the greater emphasis on the environment in the revision of the RDP in ESAP1/31.

An ecosystems approach to coastal and marine management (ESAP2/18d) is a theme that runs through multiple actions in both action plans. ESAP1/33 and ESAP2/3 cover the subject for terrestrial systems and the concept is already stated in ESAP2/6a, ESAP2/7 and, to a lesser extent, ESAP2/8 as far as the marine aspect is concerned.

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44 Ceredigion County Council, Cambrian Mountains Pilot Project.
**Assessment of progress made**

The focus in ESAP1 is on limiting human impacts on the environment and providing access for recreational activities both to the countryside and to green spaces within urban areas. ESAP2 broadens this outlook to explicitly incorporate ecosystem services in the revision of the RDP. The ecosystem approach is also promoted in this theme in addition to being mentioned in a number of others (particularly the Marine theme). Approaches comprising “ecological economic” concepts such as those that may arise from the ecosystems assessment framework provide a route by which the Environment Strategy can involve wider society in this theme.

**Research and Evidence**

- ESAP1/1 promised a survey of carbon emissions across all sectors and “ambitious targets for emission reduction”. This target was later set at 3 per cent year-on-year by 2011 by the One Wales policy document\(^{46}\). Figure 3 shows annual changes in carbon emissions in Wales.

![Figure 3](image)

**Figure 3** – Carbon dioxide emissions in Wales between 1990 and 2006. Note that no data is available for 1991-1994 or 1996-1997 so lines represent interpolations.\(^{47}\)

- Both ESAP1/2 and ESAP2/21 outline (in almost exactly the same words) plans to assess current and future policies in terms of carbon emissions and adjust those policies accordingly to make carbon savings. There is also mention of the Climate Change Commission for Wales which is involved in this area.

- The Energy Routemap promised in ESAP1/8 has now been published\(^{48}\), as has the Microgeneration Action Plan\(^{49}\) promised both in ESAP1/8 and related to ESAP1/10. Both contain targets within their respective fields. A full assessment of the Energy Routemap should be possible at the end of 2009 when the majority of target deadlines have passed.

- ESAP1/10 and ESAP1/11 both relate to planning and climate change. The “Planning for Climate Change” document and the two consultations that occurred in relation to it are due to be incorporated into a revised Planning Policy Wales document which, as of June 2009, has yet to be published (originally due by the end of 2008).


ESAP1/60 promises **performance indicators for local authorities** and these can be found in the “Performance Measurement Framework”\(^{50}\).

The gathering of good **quality environmental data** (ESAP1/58) is clearly important in assessing environmental impacts. However, at the time of publication of ESAP2, 23/103 (22 per cent) indicators still had yet to be fully defined. 36 had no information and 15 have not moved beyond baseline data collection, meaning that only 52/103 (50 per cent) indicators are functional. There are a number of topics within which an indicator is outlined without a quantifiable method. ESAP2/20 states the intention to have this finished by March 2009.

An update on **Energy Saving Wales (ESW)**\(^{51}\) (ESAP1/9) resulted in a revised website to assist the public with renewable energy and energy efficiency enquiries. Also being incorporated into ESW are recommendations from the Expert Panel on Resources Management.

A **climate change adaptation action plan** (ESAP1/3) has been in development since February 2007, when a consultation plan was published. While responses were generally positive\(^{52}\), there was a consensus that current activity appeared to be of a lower priority than economic activity. This action plan appears to have been largely absorbed into other policy areas, including the Health Adaptation Action Plan, Axis II of the Rural Development Plan and Planning for Climate Change. It has also been acknowledged that something more than an action plan is required to meet climate change targets and responsibilities\(^{53}\). It may be that the Wales Climate Change Strategy\(^{54}\) is intended to fill this role.

As previously mentioned, there is a lack of functioning indicators in the current action plan. The **Wales Environment Research Hub**\(^{55}\) (WERH, ESAP2/19) should contribute to accomplishing this target.

**Assessment of progress made**

Several publications have arisen from actions within this theme, particularly with regards to energy and greenhouse gases. Some of the material produced by ESAP1 has been incorporated into other policy areas (e.g. planning, health and agriculture). This approach complicates the ability of scrutinising bodies to ensure that the appropriate actions are worded correctly and robustly enough in the other documents. The strategies are complemented by the proposed completion of the suite of indicators to monitor progress.

**Historic Environment**

ESAP1/44 has been partially fulfilled with the publication of a White Paper\(^{56}\) and a Draft **Heritage Protection Bill**\(^{57}\) as well as revised guidance for the management of historic landscapes. Delays with this legislation have pushed the consideration of the Act back to the 2008-09 legislative session.

\(^{50}\) Local Government Data Unit – Wales, *2009-10 National Performance Indicators*, April 2008.
\(^{54}\) Welsh Assembly Government, *Wales Climate Change Strategy*.
\(^{57}\) Department for Culture, Media and Sport, *Draft Heritage Protection Bill*, April 2008.
An annual report on the state of the historical environment (for 2006\textsuperscript{58} and 2007\textsuperscript{59}), a review of grant programmes and a report on traditional building skills\textsuperscript{60} have been completed to fulfil ESAP1/45.

ESAP2/22 sets targets to monitor the condition of historic buildings with deadlines into 2009. This complements the actions in ESAP1 outlining the assessment of new monuments for scheduling (ESAP1/44) and annual reporting on the condition of the historical environment (ESAP1/45).

ESAP2/23 is a special case of ESAP2/22, monitoring the condition of historic buildings on agricultural land.

ESAP2/24 sets the target of characterising all registered historic landscapes by April 2009 and developing this characterisation so that it can run at a local level by September 2009. This concept of characterisation resembles that which underpins the CCW's LANDMAP project\textsuperscript{61}.

Some progress has been made towards the Historic Environment Strategic Statement (ESAP2/25i), although the consultation stage has not yet begun.

Assessment of progress made

The actions from ESAP1 have been delivered (as shown in Table 1), and a distinct set of actions is presented in ESAP2. In particular, the Draft Heritage Protection Bill in which Welsh Government worked closely with Westminster will provide the over-arching framework within which the ESAP2 actions will be delivered. The deadlines for achieving the actions in ESAP2 fall later in 2009, making their assessment difficult at the time of writing this research paper.

People and the Environment

CCW's "green space toolkit"\textsuperscript{62} (ESAP1/19) has been utilised at a number of sites across Wales with some regions winning awards as a result.

ESAP1/53 promises to both promote and fund green volunteering, with an emphasis on young people. Some milestones have been achieved, but the need for a subsequent review of opportunities for volunteering, the barriers to volunteering, and sources of information in ESAP2/26 are outstanding actions in ESAP1. The deadline for the ESAP2 action was March 2009.

ESAP1/52 is concerned with achieving behaviour change on environmental issues. However, it is not clear how the "interim recommendations" that have resulted from this action are being used.

Employee training in the construction sector now includes aspects on sustainability and reduction of environmental impact\textsuperscript{63}, as per ESAP1/56.

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\textsuperscript{61} Countryside Council for Wales, LANDMAP - the landscape atlas.
\textsuperscript{62} CCW, Providing Accessible Natural Greenspace in Towns and Cities: A Practical Guide to Assessing the Resource and Implementing Local Standards for Provision in Wales, January 2006. This document is not available online but is available on request from CCW (enquiries@ccw.gov.uk).
\textsuperscript{63} Construction Skills, Sustainability Tools [on 27 January 2009].
The Eco-School scheme\textsuperscript{64} is mentioned in ESAP1/54 as well as ESAP2/27. The ESAP2 action expands the concept from only considering schools to the broader “educational settings” and includes environmental management systems as well as the Green Flag and Eco-School schemes. There is an increased uptake in the various schemes (see Annex 2 for recent statistics).

An update to the Education for Sustainable Development and Global Citizenship (ESDGC) action plan\textsuperscript{65} has been completed with environmental awareness at the fore (ESAP1/55) and an emphasis on the importance of first-hand experience of the natural world and cultural environment (ESAP2/28).

Increasing out-of-classroom learning (ESAP2/29) features only in ESAP2, building on the inclusion of environmental teaching in the revised ESDGC (see above).

Two schemes are proposed to enhance public use of the environment. National Parks are to run social inclusion projects (ESAP2/30) and CCW is piloting its “Come Outside” project to enable socially disadvantaged groups to access the countryside (ESAP2/31). There are clear links between these actions and those involved with access and recreation.

An “Exploring Sustainable Well-Being” tool is being within third sector organisations (ESAP2/32). This tool is designed to help voluntary organisations think about the impacts a project or work programme will have on people’s well-being and environmental sustainability in a practical and interactive way. The main body responsible for this scheme is the Public Health Association (PHA) Cymru\textsuperscript{66}.

Assessment of progress made

The theme of green volunteering is consistent across the two strategies, with similar wording of actions in both Action Plans. The concept has strong connections with other aspects of the Environment Strategy (particularly health, access and recreation). There is a substantial overlap between this category and Access and Recreation, particularly social inclusion projects (ESAP2/30) and “Come Outside” (ESAP2/31). However, this theme takes access one step further in also encouraging participation in conservation (ESAP2/26) and learning (ESAP2/29). The actions facilitating green volunteering (ESAP2/26) and enhancing the third sector (ESAP2/32) both provision and encourage this kind of engagement on the part of the public. An approach that may not yield immediate outputs is the incorporation of environmental awareness into education and employment training schemes. There are strong parallels between the ESDGC and employee training and between the Eco-Schools/green flag initiatives and the Corporate Health Standard. These actions are intended to encourage people to think about the environment in their everyday lives.

\textsuperscript{64} Eco-Schools Wales Website, \url{http://www.eco-schoolswales.org/}.

\textsuperscript{65} Education for Sustainable Development and Global Citizenship (ESDGC), \emph{A Strategy for Action: Updates (Jan 2008)}, April 2008.

\textsuperscript{66} Welsh Assembly Government, \emph{Public Health Association (PHA) Cymru – The All Wales Well-Being Non Governmental Organisations Network}.
**Partnership**

- ESAP1/4 proposes the establishment of a **cross-sector climate change group**. Rather than the Ministerial Advisory Group on Climate Change specified in the progress report, this has been superseded by the Climate Change Commission for Wales (CCCW). The sub-groups of the CCCW will focus on the detailed legislative work that will underpin the policy modifications that take into account climate change (ESAP1/2, ESAP1/3 and ESAP2/21).

- In an extension of the promise to assess policies in terms of their carbon emissions (ESAP1/2), **policies are also to be assessed in terms of their ability to execute the aims of the ES** (ESAP1/57). This is proceeding via the Policy Gateway Integration Tool, a process by which policy is checked for its ability to achieve the aims of the whole cabinet agenda. As yet few details on the use of the Tool have been published.

- **Community strategy guidance** has now been updated to take account of the ES, as per ESAP1/59.

- The **Wales Spatial Plan (WSP)** has been updated in 2008 to take into account the Environment Strategy, covering ESAP1/61 and ESAP1/62. ESAP2/33 outlines strategies on **how to deliver** these environmental priorities within Spatial Plan areas and this will be published in March 2009. Concerns were voiced during the 2005 consultation on the Environment Strategy that no mention was made of the Wales Spatial Plan at that time despite its obvious importance.

- An assessment of **partner environmental organisations’ contributions** towards the delivery of the Environment Strategy is planned by March 2009 (ESAP2/34).

- Supporting **networking** opportunities for local governments and partners is promised in ESAP2/35 by November 2008. However, it is uncertain as to whether such meetings have yet taken place.

- ESAP2/36 sets a target of 10 more private sector employers to reach at least bronze standard in the **Corporate Health Standard** (CHS). A survey of the criteria for this award shows that this is relatively straightforward to achieve for most companies.

**Assessment of progress made**

The aims of the Environment Strategy are served by the twin approaches of (i) encouraging an input into decision- and policy-making from the Climate Change Commission and (ii) ensuring that the resulting policies adhere to the Environment Strategy using the Policy Gateway Integration Tool. There is an emphasis on implementation at different spatial scales, both with the Wales Spatial Plan and community strategy guidance.

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67 Welsh Assembly Government, *Climate Change Commission for Wales* [on 27 January 2009].
68 Welsh Assembly Government, *Policy Gateway Integration Tool*. This website is only accessible through the WAG internal network. For information on the Policy Gateway Integration Tool please contact WAG’s Strategic Policy Unit: strategypolicyunit@wales.gsi.gov.uk.
Environmental Quality

- The Strategic Environmental Assessment (SEA) for the Transport Strategy has been published\(^{74}\), covering a wide range of environmental issues that could be affected by the strategy (see ESAP1/5a-c). The Strategy itself was published in April 2008\(^{75}\). This is all followed by monitoring strategies outlined briefly in ESAP2/40a-f.

- An assessment of construction requirements in Transport Wales features in both ESAP1/7 and ESAP2/41. These two actions are almost identical apart from the deadline, with ESAP2 setting the date for the final report back from October 2008 to March 2009.

- Technical Advice Note (TAN) 18: Transport has been revised to emphasise the need to identify measures to reduce travelling, as per ESAP1/6.

- A revised version of the Legislative Competence Order (LCO) on Environmental Protection and Waste Management\(^{76}\) was laid before the Assembly on 19 May 2009 and was referred to Parliament for scrutiny by the Secretary of State on 27 April 2009\(^{77}\). This will cover the actions in ESAP/1/18 via the Measures which are referred to in ESAP2/39. The Local Environmental Quality (LEQ) component of ESAP1/18 has led to the founding of the LEQ forum. However, little information is available on the outputs of this forum or regional branches thereof. The LEQ action plan (ESAP2/38a) has not been published for consultation at the time of writing this research paper and so it can be assumed that ESAP2/38b-d are also incomplete.

- Neither scoping nor a consultation have been carried out with regards to charging for residual waste collection (ESAP1/20). However, subsequent legislation such as the Climate Change Act 2008\(^{78}\) and the proposed Environment Order may contain provisions to implement such a measure.

- There has been progress with Waste Awareness Wales\(^{79}\) (ESAP1/21). This has involved large-scale public awareness campaigns using, among other approaches, television commercials to highlight composting.

- No details about preliminary or more-detailed guidance for waste management facilities for local authorities are available (ESAP1/22). However, substantial funding has been provided to allow the provision of these facilities (see details in Annex 2).

- A large number of public awareness initiatives have been undertaken (involving scientists, farmers and NGOs) to reduce pollution from sheep dip (ESAP1/41). However, there are no quantifiable indicators of the effect of these initiatives on levels of sheep dip pollution.

- The consultation on the Welsh Soils Action Plan (ESAP1/42) closed on 13 June 2008\(^{80}\), although a date has not yet been set for the release of a response from WAG.

- CCW’s landscape characterisation project (ESAP1/43 – “LANDMAP”\(^{81}\)) has been completed and been awarded a major landscape planning award\(^{82}\).

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\(^{74}\) Welsh Assembly Government, Strategic Environmental Assessment (SEA) Reports.
\(^{76}\) Now known as The National Assembly for Wales (Legislative Competence) (Environment) Order 2009
\(^{77}\) National Assembly for Wales, Progress of Legislative Competence Orders (LCOs) and Measures: Environmental Protection and Waste Management.
\(^{78}\) OPST, Climate Change Act 2008 (c. 27).
\(^{79}\) Waste Awareness Wales Website, http://www.wasteawarenesswales.org.uk/.
\(^{80}\) Welsh Assembly Government, Consultation on the proposed Welsh Soils Action Plan.
\(^{81}\) Countryside Council for Wales, LANDMAP - the landscape atlas.
ESAP2 contains an action beginning scoping and consultation on contaminated land in Wales (ESAP2/37). The deadline for the scoping is December 2009 and for the final Contaminated Land Strategy, 2011.

Assessment of progress made

Instigating behavioural change is a concept that is primarily led by the Waste Awareness Wales project. This has enjoyed some notable publicity, not least in the form of television adverts. The evaluation of charging for waste collection can be considered in the same category, though it takes a more economic approach to the problem. Evaluation of progress in this area is difficult due to the potential for actions to be included in Measures under the proposed Environment LCO. As in the Partnership theme, the inclusion of local government through the LEQ forum will permit more local solutions to local problems.

Other actions

Agriculture

There are four actions specifically relating to this field (ESAP1/28-31) and two more relevant actions on genetically modified crops (ESAP1/39) and pesticides (ESAP1/40) which feature under the Biodiversity theme in the ESAP2 scheme. The four specifically agricultural actions from ESAP1 are:

- An environmental emphasis has been introduced into the RDP and Farm Advisory Service (FAS) (ESAP1/28). The evidence for the achievement of these two actions is clear from the current RDP, in which Axis 1 states the FAS “helps eligible farm businesses meet cross-compliance and environmental regulations” and the presence of Axis 2, entitled “Improving the Environment and Countryside”, which promotes agri-environment schemes to protect and enhance the environment while maintaining agricultural production.

- Data collection is underway to monitor the impacts of the Common Agricultural Policy (CAP) reform of 2003 (ESAP1/30) on livestock numbers and land use patterns. This has been monitored to date through the analysis of June Census of Agriculture and Horticulture and the annual Farm Business Survey (FBS) in Wales. Indications from these publications are of little change except for a long term steady decline in sheep and dairy cow numbers. FBS analysis indicates an upturn in farm incomes.

- ESAP1/31 outlines the drive to improve the environment through agri-environment schemes and land management schemes. The three specific measures mentioned in ESAP1/31 (climate change, diffuse pollution and biodiversity) each appear explicitly in Axis 2 of the RDP, thus fulfilling this action.

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83 Welsh Assembly Government, Axis 1 – The Competitiveness of Agriculture and Forestry.
85 Aberystwyth: University of Wales, Farm Business Survey.
Assessment of progress made

All of the agricultural actions have been fulfilled from ESAP1, although the end product of each of these successful actions has yet to be evaluated and no follow-on actions are included in ESAP2. This has occurred in other themes, for example, where ESAP1 proposed the creation of strategies to improve designated sites of conservation, ESAP2 proposed further data collection and further action plans to build on this.

Role of the Welsh Government

Two specific actions are prescribed for the Welsh Government in ESAP1/23. The first states the two aims of (i) improving environmental performance in WAG construction projects and (ii) a review of WAG investment in construction with respect to environmental performance. The Welsh Government has made a commitment to zero-carbon for its own buildings constructed after 2011 and BRE Environmental Assessment Method (BREEAM) “excellent” standards for all existing buildings. The Senedd in Cardiff Bay achieved the highest BREEAM rating ever recorded in Wales. Secondly, making environmental management and sustainability an important part of Priority 2 in the European Regional Development Fund (EDRF) has delivered on ESAP1/29. This means that these two factors will be specifically considered when judging applications for European Structural Funds. Since applications are routed through the Welsh European Funding Office (WEFO), a department of the Welsh Government, the government has substantial controls over the criteria for European Structural Funds applications.

86 National Assembly for Wales, Senedd – Sustainability.
87 Welsh European Funding Office, Enterprise ERDF Convergence: P2T1, ERDF Competitiveness P2 Document.
4 Summary and Conclusions

Similarity of Actions

At least six of the 64 actions in ESAP1 have equivalents in ESAP2 with most of those six containing sections of text that are identical between the two strategies (Annex 5). It is not clear why this is the case given the complementary nature of the two documents. One possible interpretation is that it is intended to highlight the importance of the action that is being repeated.

In the case of ESAP1/12, ESAP1/14 and ESAP1/15 compared to ESAP2/14a, ESAP2/14b and ESAP2/14c, respectively, ESAP2 explicitly states that these are ongoing actions. The same statement is not made in other cases of similarity across the strategies and explicit statements regarding the continuation of actions from ESAP1 are not made in other areas.

While climate change has been highlighted as being excluded from ESAP2 on the grounds that it is covered in other statutory work, it features in ESAP2/16, ESAP2/21, ESAP2/27a and ESAP2/40b. Waste management, on the other hand, features only in ESAP2/39 where it is clearly stated that the issue will be dealt with using Measures under the proposed Environment LCO.

Biodiversity Action Reporting System

An alternative model for presenting progress has been developed for the Biodiversity Action Reporting System. This resource provides a searchable database of biodiversity actions from Local Biodiversity Action Plans, Habitat Action Plans, Species Action Plans, and the Biodiversity Strategies of England, Wales and Scotland. The “Wales Biodiversity Strategy Actions” (which are presented bilingually) include 14 actions from ESAP1 broken down to give 19 milestones. For each of these milestones the start/end date, lead organisation and status are given. Two separate pages exist for each of the 19 milestones, with contact details for relevant members of staff at the lead organisations and a brief report on progress. The system is updated each time a lead partner submits an update on progress. This system is easier to follow than that used to date for the Environment Strategy.

The corresponding mechanism for reporting on indicators through the Statswales website is easy to use as it is updated as new data becomes available. The Sustainable Development Scheme indicators are published in annual bulletins but no central location exists for the data itself.
Annex 1 – Acronyms

BAP Biodiversity Action Plan
BREEAM Building Research Establishment Environmental Assessment Method
CAP Common Agricultural Policy
CCW Countryside Council for Wales
CHS Corporate Health Standard
Defra Department for Environment, Food and Rural Affairs
EA Environment Agency
ERDF European Regional Development Fund
EIA Environmental Impact Assessment
ES Environment Strategy
ESAP1 First Environment Strategy Action Plan
ESAP2 Second Environment Strategy Action Plan
ESDGC Education for Sustainable Development and Global Citizenship
ESRG Environment Strategy Reference Group
ESW Energy Saving Wales
EU European Union
FAS Farm Advisory Service
FBS Farm Business Survey
GM Genetically modified (crops)
HPMR Highly Protected Marine Reserves
ICZM Integrated Coastal Zone Management
LANDMAP Landscape Mapping and Decision Making Process
LCO Legislative Competence Order
LEQ Local Environmental Quality
NERC (BD) Natural Environment and Rural Communities Act 2006 (Biodiversity Duty)
NGO Non-Governmental Organisation
PGIT Policy Gateway Integration Tool
PHA Public Health Association
PPW Planning Policy Wales
RDP Rural Development Plan
SEA Strategic Environmental Assessment
SuDS Sustainable Drainage Systems
TAN Technical Advice Note
<table>
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<tr>
<th>Acronym</th>
<th>Description</th>
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<tr>
<td>WAG</td>
<td>Welsh Government (Welsh Assembly Government)</td>
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<td>WBP</td>
<td>Welsh Biodiversity Partnership</td>
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<td>WEFO</td>
<td>Welsh European Funding Office</td>
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<td>WERH</td>
<td>Wales Environment Research Hub</td>
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<td>WFD</td>
<td>Water Framework Directive</td>
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<td>WRR</td>
<td>Water Related Recreation</td>
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<td>WRS</td>
<td>Water Resource Plan</td>
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<td>WRP</td>
<td>Water Resource Strategy</td>
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<td>WSP</td>
<td>Wales Spatial Plan</td>
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<tr>
<td>Theme</td>
<td>Action</td>
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<tr>
<td>Access and Recreation</td>
<td>We will seek to manage increased access to the countryside effectively and develop best practice through supporting pilot projects on sustainable public recreation which can be replicated elsewhere.</td>
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<td></td>
<td>We will work with key partners – including CCW, National Parks and local government – to increase public access to the coast of Wales.</td>
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<td></td>
<td>Targeted action as part of Health Challenge Wales to highlight the relevance of the environment to people’s health and well-being.</td>
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<tr>
<td>Health and the Environment – the development and funding of initiatives that showcase, signpost and demonstrate the links between health &amp; the environment by commissioning work thereby ensuring increased sustainability.</td>
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<td></td>
<td>To implement a Wales wide exercise referral scheme which will include opportunities for outdoor activities.</td>
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<td>Biodiversity</td>
<td>We will bring designated sites into favourable or recovering condition through a suite of measures aimed at delivering more sympathetic management. Measures will include: • identifying land owned by the public sector, conservation charities and other organisations • management agreements • sharing best practice • targeting of agri-environment schemes</td>
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<td></td>
<td>We will set priorities for landscape scale projects in order to build up the resilience of biodiversity to adapt to climate change, including habitat restoration and review the mechanisms that support this.</td>
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<td></td>
<td>We will assess Woodlands for Wales, the Assembly strategy for woodlands and trees, against the Environment Strategy and prepare an action plan setting out how we will address the issues.</td>
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<td>We will review the application of the EIA (Semi-Natural areas and Uncultivated Land) regulations, seeking to ensure that they effectively deal with environmental issues relating to agricultural intensification.</td>
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<td>The Wales Biodiversity Partnership will be reconfigured to provide a leadership role and an expert steer on priorities for action on biodiversity in Wales.</td>
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<td></td>
<td>We will develop a Biodiversity Framework for Wales explaining the roles, remits and processes essential to biodiversity protection and enhancement in Wales.</td>
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<td>We will bring together standardised guidance to the development of local wildlife site systems.</td>
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<td>We will develop GM crop coexistence arrangements, which will take account of the potential impact of GM crops and associated herbicide regimes on biodiversity.</td>
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<td>We will reduce the environmental impacts of pesticides on</td>
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\(^{91}\) “Theme” is an allocation of each action to one of the sections of the Second Environment Strategy to assist comparison. The Biodiversity Action Reporting System (BARS) has details of those actions which relate to biodiversity (including some that are categorised here under alternative themes) on their website: [http://www.ukbap-reporting.org.uk/plans/wes_actions.asp](http://www.ukbap-reporting.org.uk/plans/wes_actions.asp) .


\(^{93}\) University of Brighton, Strategic Plan for Water Related Recreation (WRR) in Wales, 5 June 2008.

\(^{94}\) Environment Agency, Splash, 4 February 2009 [on 17 February 2009].

\(^{95}\) Welsh Assembly Government, £1.5m kick-start for all-Wales coastal path, 29 June 2007 [on 17 February 2009].

\(^{96}\) Cadw, General interest publications [on 17 February 2009].


\(^{98}\) Physical Activity and Nutrition Network Wales (PANNW), National Exercise Scheme. A contact at the PANNW confirmed that as of 20 February 2009 all authorities either had an Exercise Referral Coordinator in post or were actively recruiting.

\(^{99}\) Countryside Council for Wales, Environment Strategy for Wales: a plan to bring sites with international designations and SSSI into favourable management, June 2008.


\(^{101}\) Latham, J., Blackstock, T.H., Howe, E.A. (2008) Ecological connectivity in Wales: planning action to help terrestrial biodiversity respond to habitat fragmentation and climate change, Countryside Council for Wales Staff Science Report, March 2008. The report is not available online but can be obtained from the CCW publications team ([enquiries@ccw.gov.uk](mailto:enquiries@ccw.gov.uk)).


\(^{104}\) Wales Biodiversity Partnership, Wales Biodiversity Framework, 1 September 2008.


\(^{106}\) Welsh Assembly Government, Consultation proposals for coexistence between GM, traditional and organic crops in Wales, 11 February 2009.
<table>
<thead>
<tr>
<th>Environmental Quality</th>
<th>We will produce a new Wales Transport Strategy, which will be subject to a full SEA, that will help to deliver outcomes relating to:</th>
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<tbody>
<tr>
<td></td>
<td>• Reducing the impact of transport on greenhouse gas emissions; air pollution; water pollution; noise pollution; land contamination, light pollution and habitat fragmentation</td>
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<tr>
<td></td>
<td>• conserving and enhancing biodiversity, soils, landscape, heritage</td>
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<td></td>
<td>• addressing the impacts of climate change including managing flood risk</td>
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<tr>
<td>Code of Practise for Using Plant Protection Products</td>
<td>Yes</td>
</tr>
<tr>
<td>The Wales Transport Strategy has been published and the strategic environmental assessment was published in November 2006</td>
<td></td>
</tr>
<tr>
<td>Environmental Quality</td>
<td>We will carry out a review of technical guidance on planning and transport, including the need to locate development to minimise the need to travel, especially by car.</td>
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<td>6</td>
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<tr>
<td>The revised version of Technical Advice Note 18 has been published</td>
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<tr>
<td>Environmental Quality</td>
<td>We will review the effectiveness of Transport Wales’ sustainable construction requirements.</td>
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<tr>
<td>From Environment Advisor in the Transport and Strategic Regeneration Department at WAG (5 March 2009): “The review of the effectiveness of Transport Wales’ sustainable construction requirements has been undertaken by consultants under Transport Wales Framework Contract. The Draft final report on the review has been submitted for comment and approval. The final report is due to be completed and submitted by the end of March.”</td>
<td></td>
</tr>
<tr>
<td>Environmental Quality</td>
<td>We will develop a strategic approach to local environmental quality and invest in improvements. This will include addressing: litter and dog fouling, flytipping, abandoned cars, graffiti, noise green space and landscape</td>
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<td></td>
<td>18</td>
</tr>
<tr>
<td>The Environmental Protection and Waste Management LCO is currently dormant (no activity between 29 November 2007 and 4 March 2009). The LEQ Action Plan is now in ESAP/38a and a draft is currently being revised in WAG (pers comm Head of LEQ Team at WAG), although the final baseline report has been published</td>
<td></td>
</tr>
<tr>
<td>Environmental Quality</td>
<td>We will scope the introduction of charging for residual waste collection. Subject to the findings of the scoping work, we will consult prior to seeking powers to introduce charging under the new Government of Wales Bill.</td>
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<td>20</td>
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<tr>
<td>No scoping work has been carried out in Wales, although the Minister for Environment, Sustainability and Housing has stated that this issue is within the scope of the draft Environmental Protection and Waste Management Legislative Competence Order. However, Schedule 5 Part 1 of the Climate Change Act 2008 provides local authorities in England with the “powers to make schemes for providing financial incentives to produce less domestic waste and to recycle more of what is produced”</td>
<td></td>
</tr>
<tr>
<td>Environmental Quality</td>
<td>We will continue to support Waste Awareness Wales including extending the message onto stopping waste generation and a programme of public risk communication aimed at explaining the range of waste management options, including energy</td>
</tr>
<tr>
<td></td>
<td>21</td>
</tr>
<tr>
<td>A Community Engagement Toolkit has been produced by Waste Awareness Wales. National Media campaigns have been carried out</td>
<td></td>
</tr>
</tbody>
</table>

109 Data obtained from the Central Science Laboratory’s Pesticide Usage Statistics (PUS).
113 White Young Green Environment, *Improving our Local Environmental Quality: A Baseline Assessment for Welsh Assembly Government*, July 2007. The report is not available online but can be obtained from the WAG LEQ Team (leq@wales.qsi.gov.uk).
115 OPSI, *Climate Change Act 2008* (c. 27).
116 The Toolkit is only available through the Waste Awareness Wales website (http://www.wasteawarenesswales.org.uk/) with a registration, but copies on CD are available on request.
| Flood and Water Management | We will support a regional capital access fund to facilitate the provision of waste management facilities. | 22 | Partly complete | A total of £14,489,732 was awarded to 9 projects from the Regional Capital Access Fund: £7,102,689 in 2007-08 and £7,387,043 in 2008-09. The amounts promised were £8 million in 2007-08 and £10 million in 2008-09. |
| --- | We will actively contribute to the implementation of the Sheep Dip Pollution Reduction Programme drawn up by the Veterinary Medicines Directorate and the Environment Agency, through the Welsh Sheep Dip Pollution Group (SDGP). The group will provide a Welsh focus for the development of initiatives, raise awareness of sheep dip use, the environmental impact and animal welfare concerns and review progress on actions from the Pollution Reduction Programme. | 41 | Yes | Sheep dip pollution reduction programme has been established with input from the Office of the Chief Veterinary Officer. Awareness raising has occurred (e.g. “Stop Every Drop” leaflet). Studies have also been undertaken to assess the impacts of sheep dip chemicals and mitigating measures that can be taken. |
| Flood and Water Management | We will develop a soil action plan focused on: • good soil management in agriculture and forestry • integration of soil protection into guidance on land-use planning policy and its implementation • developing an appropriate set of indicators for soils in Wales • working with CCW and the Environment Agency to ensure wastes and pollutants deposited on land historically or currently do not impair long-term soil functions • a risk-based approach to managing soil resources • promoting education and access to information on soil protection. | 42 | Some progress | The Welsh Soils Action Plan consultation closed on 13 June 2008. |
| Flood and Water Management | We will use CCW’s landscape characterisation work as the potential basis for assessing the impacts of different land management choices on our landscape. This information will be used to develop broad visions and priorities for different landscapes in Wales and will inform our priorities particularly for agri-environment and forestry. | 43 | Yes | The “LANDMAP” project has recently been completed and won a major landscape planning award. |
| Flood and Water Management | We will take forward a public awareness programme to ensure that those who are at risk of flooding are aware of the risk, its consequences and the action they need to take to address it. | 12 | Uncertain | No evidence of this specifically. However, the New Approaches Programme launched in 2007 and updated in light of the Pitt review in 2008 appears to cover actions 12 and 13. |
| Flood and Water Management | We will identify a comprehensive list of measures designed to reduce flood and coastal erosion risk and raise awareness amongst bodies with relevant flood and coastal erosion risk interest. These measures will relate to infrastructure, catchment and shoreline management, education and awareness raising, modification of developments at risk (enhanced resilience) and flood warning and response. | 13 | Uncertain | See above |
| Flood and Water Management | We will implement programmes of flood and coastal erosion risk management activities, to include those measures identified in action 13, to address increasing risk, these programme will be subject to regular review. All existing plans and programmes of flood and coastal erosion risk activities in Wales will be reviewed and revised in the light of the measures identified in action 13. | 14 | Uncertain | See above |
| Flood and Water Management | We will increase Wales’ resilience to emergencies by ensuring that the needs and interests of vulnerable groups are fully reflected in emergency planning. We will carry out a pilot project in a specific locality, which will establish where vulnerable groups are located relative to flood risk, the information and support they need to minimise the risk they are subject to and their specific requirements in the event of an emergency. | 15 | Uncertain | A comprehensive mapping project was carried out by JBA Consulting on behalf of the Environment Agency as part of the Flood Risk Mapping Strategy (2003-2008). The resulting report is entitled “Receptors Vulnerable to Flooding”. |
| Flood and Water Management | We will evaluate the contribution of TAN 15 to climate change | 16 | Uncertain | There has been no review of TAN 15 (the Regional Waste Plans have been carried out). |

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119 Wales Regional Waste Plans website: [http://www.walesregionalwasteplans.gov.uk/](http://www.walesregionalwasteplans.gov.uk/). Details of particular reviews are available for each of the three regions through this homepage.
123 Details on these two studies, funded by the Veterinary Medicines Directorate, can be found on the following pages: Assessment and management of inputs of veterinary medicines from the farmyard - VM02501 and Environmental exposure to cypermethrin released to the farmyard - VM02502.
125 Countryside Council for Wales, LANDMAP - the landscape atlas.
<table>
<thead>
<tr>
<th>Marine</th>
<th>We will seek broadly defined powers within the proposed Marine Bill so that Wales can develop a distinct approach to marine issues. We will develop proposals for, and consult widely on, a detailed framework for the management of sea around Wales based on an ecosystem approach following publication of the Bill.</th>
<th>46</th>
<th>Some progress</th>
<th>Consultations have occurred on the proposal for a Marine Bill, the Marine Bill White Paper and the draft Marine Bill.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historic Environment</td>
<td>We shall enhance the overall protection afforded to the historic environment by a) producing a White Paper with UK Government on heritage protection, with subsequent legislation, to safeguard heritage assets b) assessing new monuments for statutory protection c) producing revised guidance for the management of historic landscapes</td>
<td>44</td>
<td>Yes</td>
<td>Although running behind their target dates, the Heritage Protection white paper and Bill have both been published. This has pushed the legislation back into the 2008-09 session. 4,086 monuments have been scheduled for protection as of December 2008 (pers comm from Cadw archaeologist).</td>
</tr>
<tr>
<td>Partnership</td>
<td>We will inform our work on climate change by establishing a cross-sector group, which will provide advice on climate change action for Wales.</td>
<td>4</td>
<td>Yes</td>
<td>The Cross Sector Climate Change Group (founded on 25 October 2006) was replaced by the Climate Change Partnership.</td>
</tr>
<tr>
<td></td>
<td>We will take action to remove structural barriers to the uptake of SUDs</td>
<td>17</td>
<td>Uncertain</td>
<td>An Integrated Surface Water Management Group was established in 2006 and re-established in January 2009. This group published a report “Barriers to the uptake of SUDS”. It is not clear whether this has resulted in any action being taken.</td>
</tr>
<tr>
<td></td>
<td>We will strengthen water resource planning in Wales by requiring Environment Agency Wales to undertake a complete revision of its Water Resources Strategy for Wales. We will also require Water Companies to prepare water resource plans in line with new statutory requirements. These plans and strategies should take account of the latest information and advice on climate change and housing growth, leakage performance, metering, water consumption, and implementation of efficiency plans.</td>
<td>24</td>
<td>Yes</td>
<td>Details of the consultation on the new Water Resources Strategy and links to supporting documents are available from the Environment Agency. Water resource management plans have been submitted, with final plans due for publication in April 2009. Both aims are running behind deadlines.</td>
</tr>
<tr>
<td></td>
<td>We will establish a Water Framework Directive stakeholder group (WFDSG) to support the implementation of the Directive in Wales.</td>
<td>25</td>
<td>Yes</td>
<td>The WFDSG has been established.</td>
</tr>
<tr>
<td></td>
<td>We shall improve the overall state of the historic environment by: a) producing annual reports on the state of the historic environment b) reviewing grant programmes to target funding at buildings and monuments at risk c) introducing measures to improve traditional building skills</td>
<td>45</td>
<td>Yes</td>
<td>An annual report on the state of the historical environment (in 2007 and 2008) and a report on traditional building skills have been completed. All Cadw grant percentage rates are enhanced by 5 per cent in respect of buildings which are included in a local authority’s Buildings at Risk register as being ‘at risk’. Rural Regeneration Grant and Spring Clean grants schemes each target at-risk buildings</td>
</tr>
</tbody>
</table>

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134 Department for Culture, Media and Sport, Heritage Protection for the 21st Century – White Paper, 8 March.
136 Personal communication from Cadw. This information is not in the public domain but can be requested from Cadw: cadw@wales.gsi.gov.uk.
| People and environment | We will support the development of green volunteering. We will: • encourage more green volunteering by young people as part of our programme to implement the recommendations of the Russell Commission on youth volunteering. • continue to facilitate access to green and all other volunteering opportunities by providing core funding to the volunteer bureaux in every local authority area. | 53 | Yes | A five-year Partnership Agreement signed in 2005 secured core funding for local volunteer centres and Country Voluntary Councils 151. |
| We will carry out focused research to establish the most effective methods for achieving behaviour change on environment issues. The results will be used to develop effective, targeted communications on positive behaviour change actions. | 52 | Some progress | A report into behaviour and climate change has been published 150. |
| Research and Evidence | We will carry out research to establish the level of greenhouse gas emissions in Wales, by sector, which the Assembly Government has powers to address. Ambitious targets for emission reduction, based on this work, will be set. | 1 | Yes | Carbon emissions report has been published 156 (and updated 159) and the One Wales document 149 sets out a 3 per cent per annum reduction target. |
| We will calculate the carbon emissions, which current and proposed policies generate and use this information to adjust policies to deliver carbon savings. | 2 | Partly complete | Microgeneration Action Plan published 161, Renewable Energy Route Map consultation has closed but WAG has not yet responded 160, no Biomass Energy Strategy has been published for Wales. |
| We will explore with sector skills councils, employers and trade unions how environmental awareness can be included in employee training. | 56 | Yes | Employee training in the construction sector now includes aspects on sustainability and reduction of environmental impact 157. |
| We will ensure that the Education for Sustainable Development and Global Citizenship action plan, which is being developed following last year’s consultation, will address the priority issues identified in the Environment Strategy for Wales. | 55 | Yes | An update to the ESDGC action plan has been completed 158. |
| We will invest in the number of registered Eco Schools and those achieving a green flag award. | 54 | Yes | Funding was set at £100,000 per year between 2006 and 2007 154, increased by £250,000 in 2006-07 157 and to £326,500 in 2008-09 158. The number of Eco-Schools and those with green flag awards has increased since the introduction of the action plan 156. |
| Rollout CCW’s green space toolkit to increase the quality and quantity of public green space in Wales | 19 | Yes | The toolkit has been published 144. |
| We will strengthen or add to the national environmental actions in the Spatial Plan, building on the progress to date and to reflect the vision and outcomes set out in the Environment Strategy, when we refresh the Spatial Plan in 2007-8. | 62 | Yes | See above |
| We will ensure each Spatial Plan Area Group to address the issues in the Environment Strategy in their local area and report on progress. | 61 | Yes | The Wales Spatial Plan has been updated in 2005 to take into account the environment strategy 156. |
| We will provide guidance to enable community strategy partnerships to address the issues in the Environment Strategy. | 59 | Yes | Updated guidance has been published 147. |

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146 Welsh Assembly Government, Climate Change Commission for Wales (founded on 16 October 2007) 146.
149 CCW, Providing Accessible Natural Greenspace in Towns and Cities: A Practical Guide to Assessing the Resource and Implementing Local Standards for Provision in Wales, January 2006. This paper is not available online but can be requested from CCW: enquiries@ccw.gov.uk.
149a Netto, P. (2007) Social Science Aspects of Climate Change: A survey of theories on behaviour change. [This document is not available online but can be requested from the Welsh Assembly Government]
154 In 2006/07, 1295 schools were registered as Eco-Schools and 101 of these qualified for green flags. In 2007/08 the number of Eco-School rose to 1500 of which 113 qualified for green flags. There are 1627 Eco-Schools as of 10 March 2009. This information is not available online but was provided by Keep Wales Tidy, from whom further information can be requested: http://www.eco-schoolswales.org/contact.asp.
156 Construction Skills, Sustainability Tools (on 27 January 2009).
159 Yes
162 Welsh Assembly Government, Renewable Energy Route Map for Wales.
We will undertake a mid-term report on Energy Saving Wales, assess the recommendations that emerge from the Expert Panel on Resource Management and use the results to help develop phase two of Energy Saving Wales.

We will consider how the installation of micro-renewable energy generation systems can be encouraged through using the planning system.

We will examine how land use planning can contribute to addressing climate change.

We will ensure that good quality, consistent environmental data is readily available to inform policy making and will revise State of the Environment Reporting to deliver this.

We will develop performance indicators to demonstrate the progress each local authority makes in delivering relevant outcomes of this Strategy.

We will set out in our Energy Routemap an energy mix, where renewable and low carbon sources will have growing importance and which will deliver secure energy supplies that minimise carbon emissions and negative impacts on the environment.

We will produce a climate change adaptation action plan, which sets out what actions will be taken to adapt to the impacts of climate change in Wales.

We will ensure that our policies and programmes consider how they can help deliver the outcomes proposed in this Strategy – this will be done systematically as each policy or programme is introduced or reviewed.

- We will continue to encourage improved standards of environmental performance in Assembly Government funded construction.
- We will carry out a review of policy for Assembly investment in construction, including guidance and standards for environmental performance of buildings.

Unassignable

Although such a document exists for the UK, Energy Saving Wales website has been updated, a report was produced on resource efficiency and presented to Ministers. The National Energy Efficiency and Savings Plan consultation was launched on 16 March 2009.

Consultation on “Lifting the Planning Barriers to Domestic Energy Micro-generation” closed 14 November 2007. No action has been taken as a result.

Two bouts of consultation have occurred on the Planning for Climate Change Statement since it was published in December 2006. WAG has yet to respond to the second. Planning for Climate Change will be incorporated into Planning Policy Wales through a Ministerial Interim Planning Policy Statement (MIPPS).

As of 24 July 2008, almost 50 per cent of Environment Strategy indicators had yet to be defined or had no data beyond baseline. The Performance Measurement Framework was augmented with additional indicators relating to Environment Strategy goals.


Consultation occurred in 2007 and is now complete, though no further progress has been made. It is unclear when this action is going to be fulfilled, although the Climate Change Commission has an Adaptation sub group and the Wales Climate Change Strategy (due for consultation in 2009) will outline action needed for adaptation to the impact of climate change.

The Policy Gateway Integration Tool is the primary means for ensuring that policy adheres to WAG’s environment agenda.

All buildings within the core WAG administrative estate must reach Level 5 of the Green Dragon Standard, with new buildings funded by the Welsh Assembly Government, including its own estate, or built on land disposed of by the Welsh Assembly Government achieving the

164 Welsh Assembly Government, Energy Saving Wales Website.
165 The Expert Panel on Resources Management for Wales, Low Carbon Wales: To Improve Resource Efficiency in Wales, March 2007.
167 Welsh Assembly Government, Welsh Climate Change Strategy (due for consultation in 2009) will outline action needed for adaptation to the impact of climate change.
168 Defra
169 Welsh Assembly Government, Planning for Climate Change.
171 Welsh Assembly Government, Policy Gateway Integration Tool. This website is only accessible from the WAG internal network. For enquiries relating to the Policy Gateway Integration Tool, please contact the Strategic Policy Unit: strategicpolicyunit@wales.gsi.gov.uk.
<table>
<thead>
<tr>
<th>Action</th>
<th>Status</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>We will ensure that delivering environmental outcomes is a key</td>
<td>28</td>
<td>The current RDP states that the FAS “helps eligible farm businesses meet cross-compliance and environmental regulations” and Axis 2, covers “Improving the Environment and Countryside”.</td>
</tr>
<tr>
<td>component of the new Rural Development Plan (RDP) and the provision</td>
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<td>of good quality advice on environmental issues will be a key priority</td>
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<tr>
<td>of the Farm Advisory Service (FAS).</td>
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<tr>
<td>We will seek to ensure that European structural funds are used</td>
<td>29</td>
<td>Environmental management and sustainability is now an important part of Priority 2 in the European Regional Development Fund (EDRF).</td>
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<td>to deliver environmental outcomes that are compatible with the</td>
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<td>outcomes in the Environment Strategy.</td>
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<tr>
<td>We will assess changes in livestock production and land usage,</td>
<td>30</td>
<td>This action is monitored through June Census of Agriculture and Horticulture and the annual Farm Business Survey in Wales.</td>
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<td>together with environmental and landscape impacts arising from the</td>
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<td>implementation of CAP reform in 2005.</td>
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<tr>
<td>We will use the opportunity of the revised Rural Development Plan</td>
<td>31</td>
<td>Each of the stated aims of this action appear explicitly in Axis 2 of the RDP.</td>
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<td>to refocus and ensure greater targeting of our agri-</td>
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<td>environment and land management schemes to deliver our environmental</td>
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<tr>
<td>priorities, in particular adaptation to climate change, tackling</td>
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<tr>
<td>diffuse pollution from agriculture and enhancing biodiversity.</td>
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</tbody>
</table>

180 Welsh Assembly Government, *One Wales: One Planet – Consultation on a new Sustainable Development Scheme for Wales*.  
182 Welsh European Funding Office, *Enterprise ERDF Convergence: P2T1, ERDF Competitiveness P2 Document*.  
184 Aberystwyth University, *Farm Business Survey*.  

### Annex 3 – Actions of the Second Environment Strategy Action Plan

<table>
<thead>
<tr>
<th>Theme</th>
<th>Action</th>
<th>Sub-action</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access and Recreation</td>
<td>Introduce targets to increase levels of cycling and walking (consistent with other strategies including Climbing Higher):</td>
<td>Establish the baseline for participation in outdoor recreation – including walking and cycling - by the Welsh public by end March 2009.</td>
<td>9a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Continue to work with the new Walking and Cycling Steering Group for Wales to inform policy in this area as part of the follow up to the new Transport Strategy.</td>
<td>9b</td>
</tr>
<tr>
<td></td>
<td>Promote more opportunities for water-based recreation in Wales:</td>
<td>By end March 2009 develop an action and associated communications plan to guide future activity.</td>
<td>10a</td>
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<tr>
<td></td>
<td></td>
<td>Create a challenge fund to support projects aimed at creating new or enhanced opportunities for water-based recreation in Wales in 2008/9.</td>
<td>10b</td>
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<tr>
<td></td>
<td>Continue to develop the Coastal Access Improvement Programme, including delivery of the All Wales Coast Path.</td>
<td>By end March 2009 deliver, for the coast path, 35km of new access for walkers, 10km for cyclists, 15km of new bridleway and 15kms of new access which meets least restrictive access standards.</td>
<td>11a</td>
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<td></td>
<td>Health Challenge Wales’ public awareness campaigns and literature commencing 21st January 2008 will continue to promote use of the natural environment to improve levels of physical activity, building more physical activity into daily routines to support sustainable transport options, and using quality, locally sustainable produced food to improve people's diets.</td>
<td>By end March 2010 – all local authorities to have completed green space assessment using CCW toolkit and grant aid from CCW.</td>
<td>12</td>
</tr>
<tr>
<td>Biodiversity</td>
<td>We will meet our international obligations and the urgent need to halt the loss of biodiversity and aid its recovery on sites of international, Welsh and local importance, and in the wider environment. We will do this through all our activities. Specific areas of work to drive this forward will be: Work towards the Environment Strategy target to bring designated sites into favourable condition by:</td>
<td>Completing the remaining data collection and analysis within the Actions Database for international sites by 2009 and for the remaining Sites of Special Scientific Interest (SSSI) by early 2010 (as a baseline for the 2015 SSSI target) and notifying the responsible parties of the action required.</td>
<td>1a</td>
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<tr>
<td></td>
<td></td>
<td>Producing a programme for 2009-12 which will establish an appropriate liaison and management regime to ensure effective management of international sites.</td>
<td>1b</td>
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<td></td>
<td></td>
<td>All organisations (including relevant WAG Departments) to engage with CCW actions lists (produced by CCW from the Actions Database noted above), produce</td>
<td>1c</td>
</tr>
<tr>
<td>Ecosystem Services</td>
<td>A technical project group will be established to set out leads to deliver the following actions in 2008-9:</td>
<td>The ecosystems assessment framework will be developed by CCW/EA/FCW and WAG to identify conflicts and test tools to resolve these.</td>
<td>18a</td>
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<td></td>
<td>The Cambrian Mountains’ project will be used to test ways to optimise ecosystem services options spatially, supported by Ceredigion, Gwynedd and Powys Local Authorities, the Princes Trust, CCW/EA/FCW and WAG and backed up by modelling analysis.</td>
<td>The requirements on ecosystem services delivery will be reflected in the land management options that are consulted on as part of the review of Axis II of the Rural Development Plan for Wales 2007-13.</td>
<td>18b</td>
</tr>
<tr>
<td></td>
<td>Further work is to be done on developing management actions and planning for delivering an ecosystems approach to the coastal/marine environment (from 2009).</td>
<td></td>
<td>18c</td>
</tr>
<tr>
<td>Environmental Quality</td>
<td>We will ensure that the important issue of land contamination in Wales, and the environmental issues that this creates, are addressed in a strategic way by:</td>
<td>Scope contaminated land strategy for Wales by December 2009.</td>
<td>37a</td>
</tr>
<tr>
<td></td>
<td>Develop and implement an LEQ strategy.</td>
<td>Develop a contaminated land strategy for Wales addressing the environmental issues associated with this land for consultation by Spring 2011.</td>
<td>37b</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Draft LEQ Action Plan (for consultation)</td>
<td>38a</td>
</tr>
<tr>
<td>All communities to enjoy improved local environment quality by March 2011:</td>
<td>Autumn 2008).</td>
<td></td>
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<td>-------------------------------------------------</td>
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<tr>
<td>Develop and set targets for improving cleanliness index score from the Streetscene Performance Indicator by March 2009.</td>
<td>38b</td>
<td></td>
<td></td>
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<tr>
<td>Promote effective action on fly-tipping.</td>
<td>38c</td>
<td></td>
<td></td>
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<tr>
<td>Deliver the Tidy Town Improvement Programme for urban, rural and valleys communities.</td>
<td>38d</td>
<td></td>
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</tbody>
</table>

| Pending progress on the LCO on Environmental Protection and Waste Management, develop a programme of WAG measures using the powers on these issues. | 39 |
| Monitor the new Transport Strategy’s contribution to the Environment Strategy outcomes by March 2010: | |
| Reduce the contribution of transport to greenhouse gas emissions. | 40a |
| Adapt to the impacts of climate change. | 40b |
| Reduce the contribution of transport to air pollution and other harmful pollutant emissions | 40c |
| Reduce the negative impacts of transport on biodiversity and increase the positive impacts | 40d |
| Reduce the negative impacts of transport on our heritage – landscape, townscape, historical environment and Wales’ distinctiveness | 40e |
| Reduce the negative impact of transport on the local environment, including noise pollution | 40f |
| Increase the use of more sustainable materials in the maintenance of Wales’ transport assets and in the design and construction of new transport infrastructure. | 40g[^186] |

| Carry out a review of the effectiveness of Transport Wales’ sustainable construction requirements by March 2009. | 41 |

<table>
<thead>
<tr>
<th>Flood and Water Management</th>
<th>Continue work to develop and implement the new approaches programme to flood risk management in Wales, in particular in relation to the ongoing actions below:</th>
</tr>
</thead>
<tbody>
<tr>
<td>We will take forward a public awareness programme to ensure that those who are at risk of flooding are aware of the risk, its consequences and the action they need to take to address it.</td>
<td>14a</td>
</tr>
<tr>
<td>We will develop and implement programmes of flood and coastal erosion risk management activities, to address increasing risk. These programmes will be subject to regular review.</td>
<td>14b</td>
</tr>
<tr>
<td>We will increase Wales’ resilience to emergencies by increasing our understanding of potential risk, ensuring that the needs and interests of vulnerable groups are fully reflected in emergency planning, highlighting the vulnerability of at risk infrastructure and by facilitating enhanced emergency response and recovery planning. We will carry out a pilot project in a specific locality, which</td>
<td>14c</td>
</tr>
</tbody>
</table>

[^186]: This action lacks an official action code.
will establish where vulnerable groups are located relative to flood risk, the information and support they need to minimise the risk they are subject to, and their specific requirements in the event of an emergency.  

We will take action to improve the prevention and management of flooding from surface water through a series of pilot studies across Wales.  

<table>
<thead>
<tr>
<th>Historic Environment</th>
<th>Ensure that the Water Framework Directive river basin planning process delivers an integrated approach to the management of pressures on the water environment and the sustainable management of water resources by December 2009.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14d</td>
</tr>
</tbody>
</table>
|                      | In support of this, develop the revised Water Resources Strategy for Wales by December 2008, accounting for climate change.  

In further support of this, we will influence a long-term sustainable approach to the periodic review of water prices to deliver maximum benefits for Wales, whilst aiming to ensure that water is affordable to all.  

<table>
<thead>
<tr>
<th>Historic Environment</th>
<th>In further support of this, we will influence a long-term sustainable approach to the periodic review of water prices to deliver maximum benefits for Wales, whilst aiming to ensure that water is affordable to all.</th>
</tr>
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<td></td>
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<td>16</td>
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</tbody>
</table>
|                      | Commission further independent research to consider ways of presenting a national overview of ‘at risk’ structures and ways of measuring performance, with a report to be received by July 2009.  


<table>
<thead>
<tr>
<th>Historic Environment</th>
<th>Complete a programme of characterisation of all registered historic landscapes by April 2009.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>22i</td>
</tr>
</tbody>
</table>
|                      | Review of options for delivering strategy for monitoring the condition of field monuments on agricultural land, based on the evaluation of existing resource and the development of methodologies by Gloucester University and others, by end 2008, and develop a strategy by April 2009:  

Support the maintenance and enhancement of the quality and diversity of the historic landscape through continuing to develop and promote a programme of rural and urban characterisation:  

<table>
<thead>
<tr>
<th>Historic Environment</th>
<th>Undertake pilot urban characterisation studies of at least four towns by April 2009.</th>
</tr>
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<td>23</td>
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<td>24i</td>
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<td>24iii</td>
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<td></td>
<td>24iv</td>
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</tr>
</tbody>
</table>
|                      | Publish a Strategic Statement on the historic environment of Wales and  

Publish a consultation draft Historic Environment Strategic Statement in  

<table>
<thead>
<tr>
<th>Historic Environment</th>
<th>Publish a consultation draft Historic Environment Strategic Statement in</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25i</td>
</tr>
</tbody>
</table>
produce a set of conservation values and principles for the management of the historic environment of Wales by December 2009:

<table>
<thead>
<tr>
<th>Marine</th>
<th>Develop a framework for management of seas and coasts around Wales in a collaborative way: ongoing. Specifically: Set out at an appropriate time how the proposals in the Marine Bill, will be implemented in Wales, and will contribute towards sustainable development, the ecosystem approach and the protection and recovery of biodiversity.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ensure that a new system of marine spatial planning takes full account of environmental interests and is consistent with an ecosystem approach. Specifically: Develop and use other tools (marine objectives, zoning and sensitivity mapping) to develop our approach to the use of marine plans in Welsh seas.</td>
</tr>
<tr>
<td></td>
<td>Designate Highly Protected Marine Reserves (HPMR) by 2012 to support ecosystem recovery and meet International, European and UK commitments to develop an ecologically coherent, representative and well-managed network of marine protected areas.</td>
</tr>
<tr>
<td>Partnership</td>
<td>Spatial Plan Groups will set out a delivery plan for the environmental priorities identified in each Spatial Plan Area by March 2009, and will monitor progress on these on an annual basis. This Action Plan will be sent to each Wales Spatial Plan Area Group for consideration and, where appropriate, implementation.</td>
</tr>
<tr>
<td></td>
<td>Collate information on the contribution that partner environmental organisations make to delivery of the Environment Strategy by March 2009 and ongoing.</td>
</tr>
<tr>
<td></td>
<td>Support a biannual meeting of local government networks and partnerships on environmental issues to share ideas, forward plans and promote productive joint working from November 2008.</td>
</tr>
<tr>
<td></td>
<td>The platinum level of the Corporate Health Standard (CHS) requires organisations to consider the environmental impact of the activities of the organisation. Targets have been set for 10 new private sector employers to achieve the Bronze, Silver, Gold or Platinum level Corporate Health Standard in 2008/09. A new Small Workplace Health Award will also be launched in March 2009 aimed at engaging small, private sector businesses with this agenda.</td>
</tr>
<tr>
<td>People and the Environment</td>
<td>WCVA to undertake preliminary assessment of green volunteering, including opportunities, barriers and current sources of support by March 2009 and, with WAG, respond to the</td>
</tr>
<tr>
<td>Recommendations and aim to work with organisations to expand opportunities for, and engagement in, volunteering, from March 2009.</td>
<td>Set up task and finish group to develop learning resources on climate change (summer 2008).</td>
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<tr>
<td>Invest to increase the number of educational settings taking forward actions relating to environmental management of building and grounds and climate change education initiatives, such as those achieving an Eco-Schools International Green Flag award and those involved in environmental management systems (EMS):</td>
<td>Produce resources across schools, FE and youth work (2008 and 2009).</td>
</tr>
<tr>
<td></td>
<td>Achieve a year on year increase in the number of schools achieving Green Flag Awards.</td>
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<tr>
<td></td>
<td>Support Further Education and Higher Education institutions to achieve EMS accreditation.</td>
</tr>
<tr>
<td>Work with partners to raise the profile of the importance of first hand experience of the natural world and cultural heritage (real world learning group):</td>
<td>Meet with partners and scope out potential (summer 2008).</td>
</tr>
<tr>
<td></td>
<td>Develop resources to support the natural environment and cultural heritage potential within ESDGC winter 2008 onwards.</td>
</tr>
<tr>
<td>Develop teacher training resources to support the development of out of classroom learning (summer 2009).</td>
<td>Each National Park Authority to support at least two new projects supporting social inclusion in their areas by March 2009.</td>
</tr>
<tr>
<td>Continue to provide support to the National Park Authorities as they develop their social inclusion agendas aimed at reaching out to communities both within and outside the National Parks:</td>
<td>Deliver the ‘Come Outside!’ pilot project (testing a model for enabling ‘hard to reach’ groups to benefit from outdoor activities), evaluate its effectiveness and share the learning emerging from it, and, depending on these findings, develop a framework for extending delivery to deprived communities across Wales by March 2009, including to 10 Communities First areas by March 2009.</td>
</tr>
<tr>
<td>‘Pilot the 'Exploring Sustainable Well-being' tool through the Well-being Wales Network, to help organisations in the third sector to maximise their impact on well-being and sustainability, by working their new and on-going projects and programmes of work through the review process’. (2008-2010).</td>
<td></td>
</tr>
<tr>
<td>Research and Evidence</td>
<td>Develop Wales Environment Research Hub’s role for horizon scanning, identifying key gaps in research and monitoring needs, and co-ordinating ways to meet the gaps: ongoing.</td>
</tr>
<tr>
<td></td>
<td>Development of plan for ES indicators to provide outcome data by March 2009.</td>
</tr>
</tbody>
</table>
Calculate the carbon emissions which current and proposed policies generate, and use this information to adjust policies to deliver carbon savings: current report for July 2008, but ongoing analysis to link with work of Climate Change Commission.
Annex 4 – Categorisation of actions in the First and Second Environment Strategy Action Plans

<table>
<thead>
<tr>
<th>Category</th>
<th>ESAP1</th>
<th>ESAP2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biodiversity</td>
<td>32, 33, 34, 35, 36, 37, 38, 39, 40</td>
<td>1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>Marine</td>
<td>46, 47, 48</td>
<td>6, 7, 8</td>
</tr>
<tr>
<td>Access and recreation</td>
<td>26, 27, 49, 50, 51</td>
<td>9, 10, 11, 12, 13</td>
</tr>
<tr>
<td>Flood and water management</td>
<td>12, 13, 14, 15, 16, 17, 24, 25</td>
<td>14, 15, 16, 17</td>
</tr>
<tr>
<td>Ecosystem services</td>
<td>NA</td>
<td>18</td>
</tr>
<tr>
<td>Research and evidence</td>
<td>1, 2, 3, 8, 9, 10, 11, 58, 60</td>
<td>19, 20, 21</td>
</tr>
<tr>
<td>Historic environment</td>
<td>44, 45</td>
<td>22, 23, 24, 25</td>
</tr>
<tr>
<td>People and the environment</td>
<td>19, 52, 53, 54, 55, 56</td>
<td>26, 27, 28, 29, 30, 31, 32</td>
</tr>
<tr>
<td>Partnership</td>
<td>4, 57, 59, 61, 62</td>
<td>33, 34, 35, 36</td>
</tr>
<tr>
<td>Environmental quality</td>
<td>5, 6, 7, 18, 20, 21, 22, 41, 42, 43</td>
<td>37, 38, 39, 40, 41</td>
</tr>
</tbody>
</table>
### Annex 5 – Similar or identical actions in the First and Second Environment Strategy Action Plans.

<table>
<thead>
<tr>
<th>Environment Strategy 1</th>
<th>Environment Strategy 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Action 2</strong>: We will calculate the carbon emissions, which current and proposed policies generate and use this information to adjust policies to deliver carbon savings.</td>
<td><strong>Action 21</strong>: Calculate the carbon emissions which current and proposed policies generate, and use this information to adjust policies to deliver carbon savings: current report for July 2008, but ongoing analysis to link with work of Climate Change Commission.</td>
</tr>
<tr>
<td><strong>Action 7</strong>: We will review the effectiveness of Transport Wales’ sustainable construction requirements.</td>
<td><strong>Action 41</strong>: Carry out a review of the effectiveness of Transport Wales’ sustainable construction requirements by March 2009.</td>
</tr>
<tr>
<td><strong>Action 12</strong>: We will take forward a public awareness programme to ensure that those who are at risk of flooding are aware of the risk, its consequences and the action they need to take to address it.</td>
<td><strong>Action 14a</strong>: We will take forward a public awareness programme to ensure that those who are at risk of flooding are aware of the risk, its consequences and the action they need to take to address it.</td>
</tr>
<tr>
<td><strong>Action 14</strong>: We will implement programmes of flood and coastal erosion risk management activities, to include those measures identified in action 13, to address increasing risk, these programme will be subject to regular review. All existing plans and programmes of flood and coast erosion risk activities in Wales will be reviewed and revised in the light of the measures identified in action 13.</td>
<td><strong>Action 14b</strong>: We will develop and implement programmes of flood and coastal erosion risk management activities, to address increasing risk. These programmes will be subject to regular review.</td>
</tr>
<tr>
<td><strong>Action 15</strong>: We will increase Wales’ resilience to emergencies by ensuring that the needs and interests of vulnerable groups are fully reflected in emergency planning. We will carry out a pilot project in a specific locality, which will establish where vulnerable groups are located relative to flood risk, the information and support they need to minimise the risk they are subject to and their specific requirements in the event of an emergency.</td>
<td><strong>Action 14c</strong>: We will increase Wales’ resilience to emergencies by increasing our understanding of potential risk, ensuring that the needs and interests of vulnerable groups are fully reflected in emergency planning, highlighting the vulnerability of at risk infrastructure and by facilitating enhanced emergency response and recovery planning. We will carry out a pilot project in a specific locality, which will establish where vulnerable groups are located relative to flood risk, the information and support they need to minimise the risk they are subject to, and their specific requirements in the event of an emergency.</td>
</tr>
<tr>
<td><strong>Action 24</strong>: We will strengthen water resource planning in Wales by requiring Environment Agency Wales to undertake a complete revision of its Water Resources Strategy for Wales. We will also require Water Companies to prepare water resource plans in line with new statutory requirements. These plans and strategies should take account of the latest information and advice on climate change and housing growth, leakage performance, metering, water consumption, and implementation of efficiency plans.</td>
<td><strong>Action 16</strong>: In support of this, develop the revised Water Resources Strategy for Wales by December 2008, accounting for climate change.</td>
</tr>
</tbody>
</table>
Annex 6 – Environment Strategy outcomes

1. The Assembly Government provides clear leadership on environmental issues through its policies, programmes and the way that it conducts its business.

2. Wales demonstrates the contribution that a small developed nation can make to global sustainable development and environmental improvement.

3. Environmental considerations are integrated in all policies, programmes and service delivery and that high quality and consistent environmental evidence is available to inform the decision making processes.

4. The roles and responsibilities of organisations are understood, leading to better integration for the delivery of environmental protection and enhancement.

5. Appropriate education about our environmental impacts is in place and good quality information is available at the point where people make decisions.

6. Individuals understand and are enabled to take responsibility for their environmental impact, changes in behaviour are apparent that help reduce negative environmental impacts.

7. Greenhouse gas emissions are minimised, consistent with Wales contributing fully to meeting UK-wide targets and in line with more specific Wales targets that are under development.

8. Wales has improved resilience to the impacts of climate change. A clear flexible programme of measures is in place to enable Wales to respond and adapt to climate change.

9. The amount of waste that is generated in Wales is minimised.

10. Reduce, reuse and recycle is universally accepted in government, business, industry and home life.

11. Appropriate waste management facilities are in place to minimise the amount of waste going to landfill.

12. Businesses produce well designed products that require fewer resources in their production, use and end of life, that create minimal waste and are easily reused or recycled.

13. Water resources are managed sustainably meeting the needs of society without causing damage to the environment.

14. Water is used more efficiently across all sectors.

15. The high quality of our drinking water is maintained.

16. Soil is managed to safeguard its ability to support plants and animals, store carbon and provide other important ecosystem services.

17. The extraction of minerals and aggregates minimises the impact on the environment and local communities.

18. The use of alternative materials, secondary and recycled aggregates is maximised where possible in the construction industry.

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

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

22. Our seas are clean and support healthy ecosystems that are biologically diverse, productive and managed sustainably.

23. The quality and diversity of the natural and historic character of our landscape and seascape is maintained and enhanced.

24. The built environment is high quality and vibrant, reflecting local distinctiveness and supporting strong communities, which are actively engaged in the management of their local environment.

25. New buildings in Wales meet high environmental quality standards and the environmental quality standards of existing building stock is improving.

26. The historic building stock and character is maintained to a high standard.

27. There is easy, equitable access to ample high quality green space.

28. Environmental nuisances such as litter, graffiti, dog fouling, fly-posting, noise pollution and light pollution are minimised.

29. There is sustainable, widespread and equitable access to the countryside and coast, which recognises the need for a balance between tranquil areas and areas supporting larger numbers of people and a range of activities. Damaging access will be discouraged.

30. The number of people choosing to walk or cycle as a means of transport is increasing.

31. Appropriate measures are in place to manage the risk of flooding from rivers and the sea and help adapt to climate change impacts.

32. Everyone who lives in a flood risk area understands the flood risk they are subject to, the consequences of that risk and how to live with that risk.

33. A reduction in air pollution leads to increased life expectancy and ecological protection.

34. The extent of contaminated land is better understood and actions are being taken to remediate contaminated land for beneficial use where appropriate.

35. The quality of our groundwater, rivers, lakes and coastal waters is maintained and enhanced.

36. Diffuse pollution is better understood and action is being taken to reduce and manage diffuse pollution.

37. The risks posed by exposure to chemicals is minimised with emphasis on protecting vulnerable members of society.

38. Those at risk from radon are aware of the risk that they face and what they can do to minimise that risk.

39. Radioactive discharges in Wales and doses to the public will be minimised. Discharges to the marine environment will be minimised to the extent that additional concentrations in the marine environment above historic levels are close to zero.