

**JOINT NATURE CONSERVATION COMMITTEE**

**COMMON STANDARDS MONITORING - LESSONS LEARNED FROM THE  
FIRST SIX YEAR REPORT**

**Paper by James Williams**

**1. Introduction**

- 1.1 Following consideration by the Joint Committee at its December 2005 meeting (paper JNCC 05 D12), the first six year Common Standards Monitoring report was published and launched at the JNCC Nature Barometer event held at the Rooftop Gardens in London on 12 June 2006. About 450 copies of the full report have been distributed to stakeholders in government, devolved administrations, statutory agencies, non-governmental organisations and academia.
- 1.2 A short overview of Common Standards Monitoring, and background to production of the report are presented in Annex A.
- 1.3 The Common Standards Monitoring approach of setting clear conservation objectives for features on designated sites, and assessing current state against these, is realising the anticipated site management benefits. The greater clarity and specificity provided by the conservation objectives is providing greater clarity and specificity also in relation to site management, and substantial benefits are accruing to each of the country agencies as a result. The approach has also been adopted by some external conservation practitioners in relation to both designated and non-designated sites.
- 1.4 At its June 2006 meeting, Committee requested that an internal report be prepared which would focus on improving monitoring procedures and which would set out learning points for the future. An initial paper which concentrated on the main lessons learned from the first six year monitoring round was presented to the Joint Committee at its September 2006 meeting, but was subject to the proviso that further consultation was needed with the country agencies to refine the paper. Following further consultation, the paper has been amended and the outcome of this work is set out below.

## 2. Lessons to be learnt from the first six year cycle

2.1 This paper concentrates on the main lessons and necessary actions which it is believed will lead to improved monitoring and reporting in the second monitoring round. Thirteen main lessons have been identified and these are reported below. In some cases, action has already been taken to implement the lessons.

### *Lesson 1 : success of the UK approach to monitoring*

2.2 It proved possible to aggregate monitoring data from the four countries. Action taken to trial the collation of data in the three years previous to the six-year report helped make the collation of data relatively straightforward. 12,987 feature assessments were reported for a total of 6302 sites and 632 feature categories. This represents 57% of the total coverage required. However, no network of designations (e.g. SSSIs) had complete results, and, at the end of the six year period, approximately 9,700 features are estimated as still to be assessed for the first time. As mentioned in paragraph 2.3 above, the expected management benefits from the Common Standards Monitoring approach are being achieved in practice.

#### *Lesson identified:*

**The monitoring approach taken by CSM as a means of assessing the condition of features on sites was successful, enabling data to be aggregated across the UK and supporting site management.**

#### *Actions recommended to implement lesson*

- i. persevere to complete all feature assessments on all sites;
- ii. update statistics on an annual basis.

### *Lesson 2 : use of area as well as number of features*

2.3 The results of the assessments set out in the first six year report are all presented as numbers of features in a particular condition. It was not possible to collate data on the area of each feature for the first six year report, and thereby present the data by feature area as well. This would have been helpful, as sites are typically larger in the uplands than the lowlands. A small feature will make the same contribution to the overall Report as a large feature if the results are just presented by feature number. However, presenting data by area only would also give a skewed picture, as the importance of large numbers of small features (as is typical of the lowlands) would not be apparent if the results were presented by area alone. An aspiration should be to be able to present the data by feature area as well as by feature number but the cost, and hence cost-effectiveness, of such action is currently uncertain.

*Lesson identified:*

**Presenting data by both area of feature *and* number of features would give a fuller picture of the results if it could be achieved cost-effectively.**

*Action recommended to implement lesson*

- i. undertake a trial to cost the identification of feature area, (and in the case of linear features, length), to calculate the cost-effectiveness of presenting future data by feature area as well as by number;
- ii. if the trial indicates that the work would be cost-effective and affordable, identify the area of features so statistics can be provided both by area and by number of features.

### ***Lesson 3 : identify features on sites***

- 2.4 Features are a way of separating the world into discrete units – the real world is of course more complex. Identifying which features are notified on each site has proved to be a significant piece of work in the first six year cycle. In many cases, the feature(s) for which the site was designated was not obvious from the citation of the site, and local staff and specialists had to interpret the citations by going back to the guidance on selection of sites. Although there has been much work done to identify the notified features for each site, there still isn't a full list of all features on all sites across the UK. This is a particular issue for SSSIs and ASSIs.

*Lesson identified:*

**Knowing which features exist on a site is fundamental to setting the conservation objective for the site.**

*Action recommended to implement lesson*

- i. create a complete list of features on all sites. This should help with work planning, hopefully enabling savings to be made by designing monitoring programmes so as to enable the assessment of similar types of feature to be undertaken as part of a planned exercise. This should help with quality assurance of the results;
- ii. when doing the fieldwork required before making the common standards monitoring assessment, ensure that data are collected in such a way as to facilitate the making of assessments for as many features on the site at the same time as is practicable.

#### ***Lesson 4 : standardise level of feature assessed***

- 2.5 In collating the data from the country agencies for the six year report, it became obvious that different levels of detail were being presented by the various country agencies, in particular for habitat features. The level of detail provided was sufficient to enable the report statistics to be calculated at the level of the reporting category (e.g. broadleaved and mixed woodland), but it has raised concerns whether features are being assessed at equivalent levels of granularity, and if so, whether they are strictly comparable.
- 2.6 For the ASSI and SSSI *Broad-leaved and mixed woodland* feature, for example, assessment reports were provided for the following:

<b>Feature name reported to JNCC</b>	<b>Number of assessments reported</b>
Broadleaved, mixed and yew woodland - lowland	1048
Broadleaved, mixed and yew woodland - upland	231
Juniper scrub	7
Lowland mixed broadleaved woodland	9
Lowland wood pasture and parkland	1
Scrub	22
Upland birch woodland	57
Upland mixed ash woodland	75
Upland oak woodland	153
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> )	1
Bog woodland	1
Wet woodland	37
Wood pasture and parkland	2

*Lesson identified:*

**The level of detail at which features (habitats in particular) are assessed should be standardised.**

*Action recommended to implement lesson*

- i. identify which features are the same in different parts of the UK, and ensure that they are reported at the same level of detail.

#### ***Lesson 5 : consider the relationships between features and sites***

- 2.7 The first six year cycle has helped staff undertaking the work to understand how to set limits against which the condition of a feature on a site is to be assessed, but there has been some confusion about how to set conservation objectives for a feature which is subject to different types of designation (e.g. SSSI and SAC), and also how to deal with multiple features occupying the same area of land. SACs which are multiple SSSIs have also led to some

confusion about how to set conservation objectives for the feature. Care is needed in thinking through such issues on a site by site basis in order to set the conservation objectives.

*Lesson identified:*

**Identify all the features notified on a site, and the relationships between site designations, when conservation objectives are being set.**

*Action recommended to implement lesson*

- i. the Conservation Objective for a given feature should be based on the highest level of designation (e.g. an international designation) applying to a feature;
- ii. where a range of features are present on an area of land, seek to ensure that the setting of appropriate Conservation Objectives for features of international importance is not jeopardised by Conservation Objectives set for features of national importance;
- iii. where a feature occurs in several localities in a site, or across several sites, the conservation objectives should be set for the feature as a whole, but this can include targets tailored to the needs of particular components of the feature.

### ***Lesson 6 : implement quality assurance***

2.8 There are differences in approach between the agencies implementing Common Standards Monitoring. This is legitimate, but likely to lead to differences in the data collated and/or difficulties in making country comparisons. As ‘keeper’ of the common standards, JNCC needs to be sure that the results have sufficient rigour and that the common standards are being implemented. A number of questions, therefore, need to be addressed through quality assurance of the results. These include answering the following questions:

- i. was the guidance in setting conservation objectives followed?
- ii. was the guidance in assessing condition, adverse activities and management measures followed and implemented consistently?
- iii. does CSM accurately reflect the real state of the features?

2.9 While JNCC was collating the six year report, concern was expressed by a number of staff about whether the guidance on setting and assessing conservation objectives had been followed. Assessments made in advance of completion of the guidance do not strictly meet the common standard; this will become less of a problem over the next few years as assessments are completed for the second time. There were also examples of assessments reported which seemed to reflect habitat condition rather than species

condition. For example a number of feature assessments made in England related to coniferous woodland, which is not a designated feature in that country. On examination, these assessments were found to relate to species features.

- 2.10 While the country agencies have introduced some quality assurance measures, an overall plan of quality assurance work for the UK has yet to be agreed. JNCC is not aware that any agency has a formally agreed programme of quality assurance and has only seen a few results from work undertaken within the agencies, primarily from the English Nature validation network reports. The value of pulling together existing quality assurance practices as part of a coherent UK programme of work could, consequently, be of considerable value in helping JNCC and the agencies to work together on the next six year cycle, to benefit from each others experiences and to compare results.
- 2.11 In order for quality assurance to be undertaken it is necessary to have access to data on the feature attributes, and targets. The ease of access to such attribute data varies between agencies - Scottish Natural Heritage have collated them electronically via a central database, English Nature have them in paper form in local offices.

*Lesson identified:*

**A coherent Quality Assurance programme which addresses all of the aspects identified above is urgently required. Putting such a QA programme in place is critical to ensuring that the results of CSM are fully reliable.**

*Action recommended to implement lesson*

- i. a desk analysis of country agency procedures should be undertaken in order to compile a report on commonality, inconsistencies, good practices and opportunities for improvement;
- ii. country agencies should record the conservation objectives used for the assessment, the attribute data collected and the guidance version this is based on;
- iii. country agencies should work out an efficient mechanism for easy access to the attribute data for QA purposes;
- iv. country agencies should ensure staff follow the processes and procedures which they have developed for operational implementation of CSM. Regular audits are recommended;
- v. a sample programme of assessment checks should be instituted and undertaken by trained personnel at 'arms' length from the personnel who undertook the initial assessment. This should include checks across countries;

- vi. a programme to undertake more rigorous monitoring of a sample of features should be implemented to check that CSM is reflecting the state of features accurately. An initial peer review of the guidance on conservation objectives to identify any types of feature less likely to be reflecting actual state could help prioritise a more rigorous monitoring programme.

### ***Lesson 7 : the need for training***

- 2.12 Country agencies have undertaken a substantial amount of staff training in the use of the CSM guidance. However, staff undertaking the assessments alter over time, a problem which can be particularly acute during periods of organisational change. Also, new contractors are likely to need training before they commence work under contract to ensure compatibility with the standards and with previous monitoring work. Significant ongoing training will, therefore, be needed.

*Lesson identified:*

**An ongoing programme of training will be needed in Common Standards Monitoring for both country agency staff and contractors.**

*Action recommended to implement lesson:*

- i. Country agencies should continue to carry out training programmes in Common Standards Monitoring for their staff and for contractors. Collaboration between country agencies in the conduct of this training is likely to prove beneficial and cost-effective.

### ***Lesson 8 : assessing the unfavourable recovering category***

- 2.13 The category ‘unfavourable-recovering’ has been interpreted differently by the various country agencies. This revolves around the issue as to what evidence is required to justify changing the assessment of the condition of a feature from unfavourable-declining or unfavourable-no-change to unfavourable-recovering. In particular, there is the issue as to the point where, after investment and/or management action has been taken, a change of status to unfavourable-recovering is justified. On the one hand, having this change triggered only by management action could prove erroneously optimistic; on the other hand, delaying the change until a full ecological response is established and stabilised could lead to the change not being made for many years and underplay the benefits of such investment and/or action. Currently, the common standards require the assessor to consider all the circumstances of the matter and to justify assessing a feature as unfavourable-recovering on the basis of professional judgement that recovery will take place or actual evidence of that recovery towards eventual favourable condition. However, in discussion with country agency staff, it appears that additional guidance is needed to ensure that judgements fall within acceptable boundaries.

*Lesson identified:*

**Further guidance is needed to assist assessors determine whether a feature should be assigned to the *unfavourable recovering* category.**

*Action recommended to implement lesson*

- i. Further guidance will be provided in relation to the minimum justification needed for the various broad feature categories;
- ii. quality assurance checks by country agencies should be undertaken to establish that minimum requirements are complied with.

***Lesson 9 : stable guidance on conservation objectives***

2.14 The guidance on setting and assessing conservation objectives was a huge amount of collaborative work, and the assessments came out in a piecemeal fashion over a period of years. When the guidance was signed off, there was agreement that feedback on its use should be sought and that, if necessary, it would be revised. There is agreement between the monitoring leads and between chief scientists within the agencies that there is no advantage, and significant disadvantage, in frequent modification of the guidance, but also there is a recognition that, if there are real problems with the guidance, they need to be remedied. A number of issues have been identified so far:

- i. there are problems with implementing some of the guidance, some of these relate to cost, others to operational difficulty;
- ii. in a number of cases specialists and local staff have expressed a different view of condition of the same feature. This is particularly a problem for species features, and the reasons for this need to be investigated;
- iii. the partially-destroyed category appears to have been used somewhat differently between the various countries.

*Lesson identified:*

**A complete and stable set of guidance on Conservation Objectives is needed for use throughout the six year cycle.**

*Action recommended to implement lesson*

- i. JNCC should complete the collation of feedback on use of the guidance and determine what revision is necessary;
- ii. country agencies need to be clear on their corporate process for resolving differences of opinion in setting or assessing conservation objectives;

- iii. further guidance on the use of the partially-destroyed category is required.

### ***Lesson 10 : assessing marine features***

- 2.15 While a significant amount of marine monitoring has been undertaken, relatively few assessments have been made. While there are significant cost and technical issues which relate particularly to monitoring in the marine environment (Lesson 13 also applies), the reason for the lack of assessments is due in part to difficulty experienced by assessors in interpreting the data they have obtained from monitoring. For example, the difficulty in deciding whether observed changes are temporary in nature (resulting from the natural dynamism of the marine environment) or represent a change in the condition of the feature.

*Lesson identified:*

**Difficulty is being experienced in the making of assessments in relation to some marine features, and the reasons for this need to be examined and a resolution identified.**

*Action recommended to implement lesson*

- i. undertake a full examination for the reasons behind the low number of marine assessments and develop an action plan to remedy these.

### ***Lesson 11 : identifying the causes of unfavourable condition***

- 2.16 Adverse activities were significantly under-reported, and sometimes reported in an unclear manner. Moreover, for some marine and geological features, the list of adverse activities agreed at a UK level was not comprehensive enough. Some assessments appear to have reported anticipated or observed activities, whether or not there was evidence that they were adverse or damaging to the feature, and this has the potential to distort the results.

*Lesson identified:*

**The cause(s) of unfavourable condition need to be identified more explicitly in assessments where evidence of this is available to the assessor.**

*Action recommended to implement lesson*

- i. improved guidance on recording adverse activities is needed. This should identify a standard set of reasons why features may be unfavourable, linked as far as possible to the attributes used to assess condition - i.e. if there is a problem with sward height in grasslands, this should be a clue that the grazing regime is wrong;
- ii. assessors should only record activities which the assessor believes are having a materially adverse effect on the feature;

- iii. assessors should complete this part of the assessment in all cases where it applies, adhering to the guidance.

***Lesson 12 : identifying the benefits of conservation action***

- 2.17 Management measures were also significantly under-reported. For example, in-house conservation management (e.g. on National Nature Reserves) was hardly ever mentioned, which means that the value of such measures could not be reported. There were also difficulties in knowing how to interpret the management measures which were reported. The story given by the condition and how management measures are keeping features favourable or restoring them from unfavourable condition needs to be much clearer if the full potential of Common Standards Monitoring is to be achieved.

*Lesson identified:*

**The link between the effect of management of sites on the condition of features needs to be identified more explicitly in assessments where evidence is available to the assessor.**

*Action recommended to implement lesson*

- i. improved guidance on recording management measures is needed;
- ii. assessors need to complete this part of the assessment in all cases where it applies and adhere to the guidance.

***Lesson 13 : review cost-effectiveness of monitoring delivery***

- 2.18 There are significant differences in the amount of monitoring being undertaken by each agency. Concerns have been expressed by senior staff of the cost of undertaking the programme as a whole - about £14 million over six years (in the context of £200 million for managing sites). There are advantages and disadvantages in each of a number of options (e.g. using dedicated staff, operational staff, or contactors) to deliver the results. There is likely to be a cost benefit in tackling all or many features of similar type together, for example, if contracts are being set up. Because of its cost implications, the cost-benefit of different methods of monitoring needs to be assessed and the results considered by the country agencies. The results of this analysis should also facilitate tighter and more cost-effective management of monitoring programmes.

*Lesson identified:*

**Continuing as-at-present may not to be the most efficient way to deliver CSM for the second six year cycle. Consideration of the cost-effectiveness of the various available monitoring methods and practices will assist future monitoring management.**

*Action recommended to implement lesson*

- i. cost-benefit analysis of different approaches to monitoring, for example through using local staff, via contractors, through dedicated monitoring units, or more sharing of work co-operatively between the agencies where specialist input is required, should be carried out;
- ii. tighter project-management of the monitoring programme should achieve economies of scale and deliver results more efficiently.

## ANNEX A

### OVERVIEW OF COMMON STANDARDS MONITORING AND BACKGROUND TO PRODUCTION OF THE REPORT

- 1 Over 2.4 million hectares have been notified as Sites of Special Scientific Interest (SSSI) in Great Britain, or Areas of Special Scientific Interest (ASSI) in Northern Ireland, in recognition of the wildlife, geological or geomorphological features they contain. This represents 10% of the land area of the United Kingdom.
- 2 Furthermore, areas of land and water have been designated as Special Areas of Conservation (SAC) under the EC Habitats Directive, Special Protection Areas (SPA) under the EC Birds Directive, and Ramsar sites under the (Ramsar) Convention on Wetlands of International Importance. All these designated nature conservation areas have been selected in accordance with national selection guidelines, and are protected by national legislation.

#### *What is Common Standards Monitoring?*

- 3 The Joint Nature Conservation Committee is required by statute to develop common standards throughout Great Britain for the monitoring of nature conservation and for the analysis of the resulting information. In 1998, the Committee published A Statement on Common Standards for Monitoring Designated Sites<sup>1</sup> in compliance with this duty. These common standards were piloted during 1998 and became operational in Great Britain from April 1999. By agreement with the Environment and Heritage Service, they were also adopted for use in Northern Ireland.
- 4 The purpose of common standards monitoring is primarily threefold:
  - i. at the site level, it indicates the degree to which current conservation measures are proving effective in achieving the objectives of the designation, and identifies any need for further measures;
  - ii. at the country level, it indicates the effectiveness of current conservation action and investment, and identifies priorities for future action;
  - iii. at the United Kingdom level, it enables Government to undertake its national and international reporting commitments in relation to designated sites, and, more widely, and helps identify any areas of shortfall in implementation.
- 5 The basis of the common standards for site monitoring is that the condition of the feature for which the site is designated is assessed against the conservation objective for that feature. The nature conservation component which is assessed is not the site itself, but the feature (e.g. habitat, species or earth science feature) for which it was designated. Sites may have one, two or several interest features on them and each of these is assessed separately. Conservation objectives are developed by identifying the key attributes which make up or support the feature (e.g. extent, quality, supporting

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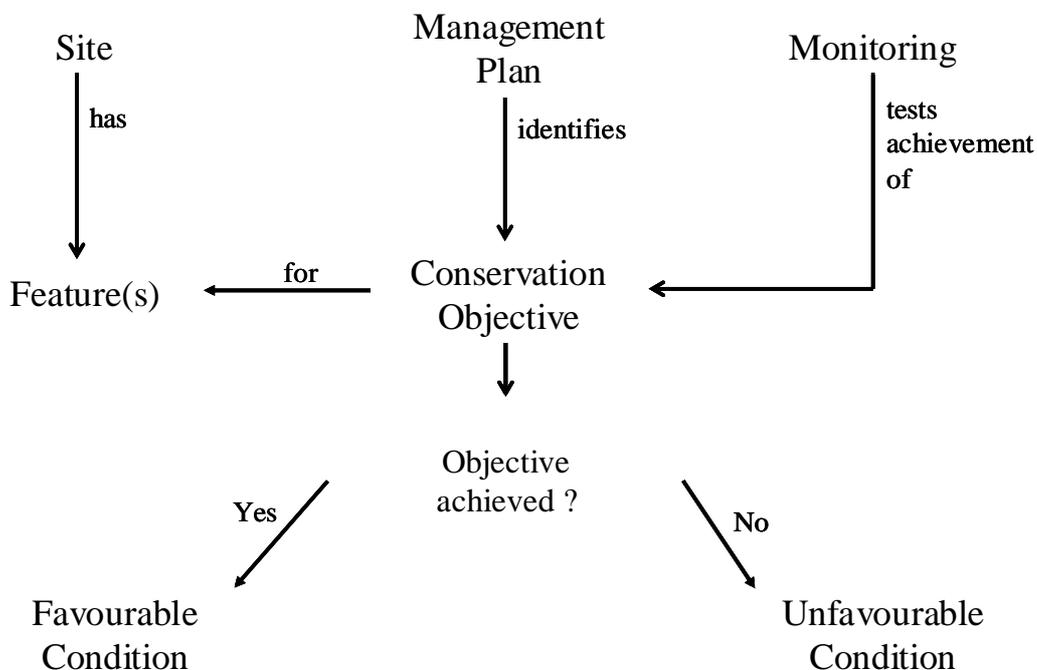
<sup>1</sup> [www.jncc.gov.uk/page-2198](http://www.jncc.gov.uk/page-2198)

processes), and setting targets for them. Each attribute is then measured and compared against the target value set. If all the targets are met, the feature is in favourable condition. Human activities which are likely to be affecting the site adversely, and the conservation measures taken to maintain or restore the site, are also recorded.

*Guidance on setting conservation objectives*

- 6 Essentially, the basis of common standards monitoring is to identify the feature or features which are notified on each individual site. Each site will have a management plan or statement which identifies the conservation objective(s) for that site. Monitoring tests whether the objective has been met. Figure 1 shows how the system works in practice.

**Figure 1. A condensed overview of Common Standards Monitoring**



- 7 During the pilot year, it became apparent that detailed guidance was needed in the formulation of conservation objectives and a programme of work was instituted to provide this guidance. The guidance was developed and adopted progressively over the next few years and is published on [www.jncc.gov.uk/page-2199](http://www.jncc.gov.uk/page-2199). The introductory chapter<sup>2</sup> to the guidance provides an overview of Common Standards Monitoring. It covers the various concepts and terms, and provides the background to the guidance on setting conservation objectives, and assessing feature condition, covered in the later chapters.

<sup>2</sup> [www.jncc.gov.uk/page-2201](http://www.jncc.gov.uk/page-2201)

### *Condition categories*

8 The common standards require the condition of features to be assessed as falling into one of a number of categories; namely i) Favourable-maintained, ii) Favourable-recovered, iii) Unfavourable-recovering, iv) Unfavourable-no-change, v) Unfavourable-declining, vi) Partially destroyed, and vii) Destroyed.

9 These categories describe the state of the feature at a particular point in time:

*Favourable* condition - the objectives for that feature are being met.

*Unfavourable* condition - the state of the feature is currently unsatisfactory.

*Destroyed (partially or completely)*- the feature is no longer present and there is no prospect of being able to restore it.

10 Where the feature is *Favourable*, it is classed as:

*Maintained*, i.e. it has remained favourable since the previous assessment.

*Recovered*, i.e. it has changed from unfavourable since the last assessment.

11 Where the feature is *Unfavourable* a further assessment is made as to whether the state of the feature is:

*Recovering*, i.e moving towards the desired state.

*Declining*, i.e moving away from the desired state.

*No-change*, i.e. neither improving nor declining.

### *Carrying out the monitoring*

12 In general, condition assessments should be capable of being undertaken by operational staff within the country conservation agencies. For some interest features, it may be necessary to have specialist input or to use data held by other organisations. Condition assessments will often be based on a structured walk across the site, but may also utilise other information (e.g. recent records or aerial photographs).

13 The intention is that every feature on every designated site in the United Kingdom should be assessed over a period of six years in a rolling monitoring cycle. Where more than one designation applies to a particular feature on a given site, a separate assessment should be made for each designation. This is because the reason for the designation, and the precise area covered, may vary between the different types of designation.

14 In addition to the assessment of the condition of the features, the common standards require the identification of those human activities or other factors considered to be

adversely affecting the feature, and also those measures which have been taken which are considered to be beneficial towards achieving favourable condition.

*Adverse activities and management measures*

- 15 Human and natural impacts on a feature may assist the meeting of the conservation objectives, they may prevent them from being achieved, or they may be neutral. Human impacts may result from the management of the feature or be independent of it; for example they may result from pollution originating from outside a site, or from the activities of the general public. Understanding the relationship between these impacts and the condition of features enables conclusions to be reached about what further conservation measures, or change in management, may be needed.
- 16 For this reason, common standards monitoring requires information to be recorded for those impacts appearing to the assessor to be preventing the feature from achieving its conservation objectives (Adverse Activities), and those measures which are assisting the feature in reaching its objectives (Management Measures). Collating information on adverse activities and management measures helps to identify those types of activities which are having the greatest negative impact and those measures which are having the greatest benefit. This will help prioritise future conservation effort and use of resources.

*A first six year cycle*

- 17 Over the period 1999-2005, the Countryside Council for Wales, English Nature, Environment and Heritage Service and Scottish Natural Heritage carried out a programme of monitoring the designated features. The published report of the first six year cycle set out the results of this first six-year monitoring cycle (plus data from the pilot year), summarised the condition of individual features under broad feature categories, and summarised also the nature of adverse activities and beneficial measures.