

**ENVIRONMENT AND HERITAGE SERVICE REPORT ON
AREAS OF SPECIAL SCIENTIFIC INTEREST
CONDITION ASSESSMENT IN NORTHERN IRELAND
THE FIRST THREE YEARS**

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Foreword

This is an interim report on the condition of lands in Northern Ireland declared as Areas of Special Scientific Interest (ASSIs). It is based on the first three years of a six-year site quality monitoring programme.

DOE is committed to ensuring that 95% of the features underlying the designation of our important wildlife sites are in or approaching favourable conservation condition by 2013.

We have been designating the best examples available. However, it is worth remembering that most of the features currently in unfavourable condition were in as bad or worse condition at the time of designation. Had it not been for ASSI declaration, the scientific interest of many of these sites may already have been destroyed altogether. By ASSI declaration, EHS has protected most declared sites from severe damage or total loss. For example, peatlands have been saved from peat cutting, woodland from clearance, grassland from ploughing, and wetlands from drainage. All these and other damaging activities could have been far more prevalent. Sadly in a very few cases, despite our best efforts severe damage has still taken place.

The methods by which the condition of the scientific interest of these areas is assessed has been standardised across the UK. Too many of them can be described as unfavourable. Our emphasis to date has been on the declaration of these special sites. We now need to increase our efforts to bring the features of these sites into favourable condition. The challenge we face is to work with landowners and other stakeholders through our local staff to introduce what can often be subtle changes to management regimes which will enable the recovery of the habitats. Sometimes, variation in grazing level and timing is all that is required. We must also take strong action against those who cause serious wilful damage to these jewels of our nature heritage.

Richard Rogers
Chief Executive

Summary

The Government in Northern Ireland is committed the Public Service Agreement (PSA) to ensure that 95% of the features underlying the designation of internationally important wildlife sites and Areas of Special Scientific Interest (ASSIs) are in, or approaching, favourable conservation condition by 2013¹. This requires regular monitoring to measure achievement against the target.

Site quality monitoring – or condition assessment - is the process of assessing that the habitat and species interests of a designated site are meeting the objectives for which the site was declared. The Joint Nature Conservation Committee (JNCC), the UK Government's advisor on nature conservation issues, has co-ordinated monitoring effort (known as Common Standards Monitoring) amongst the UK Conservation Agencies.

Environment and Heritage Service (EHS) initiated a programme of condition assessment in 2002. The six-year rolling programme has been designed so that each feature on each designated site can be assessed and reported on at least once during the six-yearly cycle. Condition assessment is intended as a rapid means of site quality monitoring and its application involves the recording in the field of a few carefully chosen attributes. However, results must be reliable and repeatable.

Although a comprehensive assessment of the ASSI network will only be possible after the full cycle has been completed, there are sufficient results after three years to allow some preliminary conclusions to be made. The results show that a significant proportion (around one third) of the features on ASSIs are in unfavourable condition.

It is unrealistic at this stage to provide a detailed breakdown by each broad habitat type or species, but some trends between feature types can be identified. Virtually all of the earth science features assessed to date are in favourable condition. The majority (over 80%) of bird features on Special Protection Areas (SPAs) classified according to the EU Birds Directive and ASSIs are in favourable condition. In contrast, for habitat features around 59% are in unfavourable condition.

Reasons for unfavourable condition on ASSIs vary. Many of the features that require some form of active management are in unfavourable condition. In some cases, only minor adjustments to existing management will be required to ensure that the conservation condition of the feature begins to recover. In a number of cases, the issues are less straightforward. Some features may either require expensive solutions, or may involve protracted negotiations.

Comparable figures for the rest of the UK show relatively large numbers of features in unfavourable condition but for habitats, the proportion is not as high as for NI (i.e. 36% for UK compared to 59% for NI).

It is not suggested that NI sites have deteriorated since they were designated. Favourable condition describes the desired state of an interest feature, and not its condition at declaration. During the initial work prior to ASSI designation, it was clear that many of the sites were not being managed in the appropriate way.

Restoring ASSIs to favourable condition will be a challenging task. Changes in the wider countryside are likely to reduce some of the pressures on ASSIs, but a targeted campaign to persuade landowners to join the Management of Special Sites (MOSS) scheme is also urgently required and is being initiated.

¹ The GB equivalent PSA is to achieve the target by 2010.

1. Introduction – The Need for Monitoring

In the Programme for Government, DOE has given a commitment to ensure that 95% of the features underlying the designation of internationally important wildlife sites and ASSIs are in, or approaching, favourable conservation condition by 2013. It will not be possible to measure achievement against this target without regular monitoring.

Site monitoring is divided into two broad categories:

- i. **Site integrity/compliance monitoring** is essentially a check that the site is still ‘intact’ and has not been significantly modified since its declaration. It includes checks to ensure that there are no infringements either of notifiable operations or management agreements where these are in place.
- ii. **Site condition assessment** is designed to detect more subtle changes, both natural and as a result of human activity. EHS initiated a programme of site condition assessment in 2002. This paper reviews the results of the first three years of this work.

2. The Development of Condition Assessment

Condition assessment is the process of assessing that the habitat and species interests of a designated site are meeting the objectives for which the site was declared. As a result, the terms “condition assessment” and “conservation objectives” have become almost synonymous. The *objectives* list the attributes (characteristics of the interest feature that can be used to describe its condition) and associated targets. Condition assessment is the actual *process* of monitoring features against the targets prescribed in the conservation objectives.

After the attributes have been measured, it is possible to assign the feature to one of the agreed reporting categories. These can be broadly broken down into favourable or unfavourable (i.e. meeting targets or failing them). The process of identifying features, setting objectives and undertaking condition assessment, is generally referred to as Common Standards Monitoring (CSM).

JNCC have taken the lead in harmonising monitoring effort amongst the UK Conservation Agencies as part of its responsibility to ensure that common standards are maintained in the UK. The three main drivers have been:

- (a) Government commitment that the condition of the designated site series should be reported on.
- (b) Requirement under the Habitats Directive to report on the status of *Natura 2000* sites.
- (c) To assess if the management of sites is effective.

Each of the UK Agencies is now committed to the process, since there is both a clear policy requirement and a practical need to monitor the condition of their designated sites. The launch of the UK Common Standards Monitoring Guidance Manual in February 2004 demonstrated the commitment of the agencies to the process.

3. Condition Assessment in Northern Ireland

After several years working with the other agencies in the development of conservation objectives and the trialling of condition assessment across a range of habitats as part of the UK CSM process, EHS initiated a full programme of condition assessment in 2002. The six-year rolling programme has been designed so that each feature on each designated site can be assessed and reported on at least once during the agreed 6-yearly cycle.

Condition assessment is intended as a rapid means of site quality monitoring. The actual field methods used to determine condition are of critical importance to the end result. The intention has been to produce methods that are relatively straightforward and quick to undertake in the field. However, accuracy and repeatability should not be sacrificed for speed and ease of use. To serve their purpose, the results must truly reflect the condition of the feature in an unbiased way - i.e. they should be capable of being carried out by different observers, over different time periods, yet still produce consistent results.

This is particularly important as each of the country agencies has adopted different approaches to carrying out the work. In England, most condition assessments are undertaken by local staff. SNH has made extensive use of contractors. CCW has a specialist unit responsible for monitoring on SACs and it is likely that this will be extended to include SSSIs. EHS is using a combination of all these elements – undertaking a proportion of the work directly within Conservation Science to ensure maximum consistency of results; using specialist contractors where in-house expertise is lacking or insufficient (for example, some aquatic habitats, bryophytes and invertebrate groups); and involving regional staff where appropriate.

There are also other sources of data that EHS can make use of. For example, regular seal counts are ongoing and there are long-established bird counts (through the WeBS programme) that provide data for many of the SPAs. In addition, the Water Framework Directive will require an extensive monitoring programme for freshwater and marine habitats which EHS will be able to draw upon.

The actual application of condition assessment in the field involves the recording of a few carefully chosen attributes. Targets are normally assessed using a structured walk, although some of the attributes (for example extent) can be assessed more accurately using recent aerial photographs where available. Surveyors stop at a series of pre-determined points and work through the attributes and targets, making notes on each for that point. These points are not intended to be a statistical sample, but simply a means of ensuring that the overall assessment of the feature is not heavily biased by what was seen in the early or later parts of the visit. In NI, we have tended to use GPS units to ensure accurate location (and subsequent re-location) of sample points.

4. Results

Although a comprehensive assessment of the condition of the ASSI network will only be possible after the full six-year cycle has been completed, there are sufficient results after three years to allow some preliminary conclusions to be made.

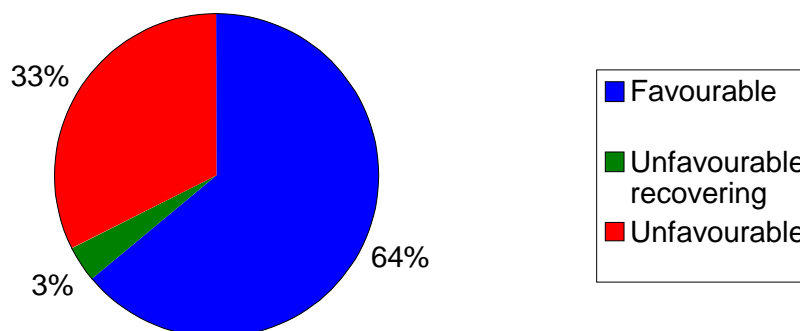
Results are classified into three categories – favourable, unfavourable and unfavourable recovering. The latter category requires some explanation. Many habitats and species that are unfavourable will take time to recover to favourable condition, even when the appropriate management is in place. This may be because of very poor condition in the past or inherently slow ecological processes – for example, woodlands may take decades or even centuries for the full range of structural features to develop. Unfavourable recovering has therefore been recognised as an “acceptable” condition, and this is reflected in the Public Service Agreement (PSA) target for England and Wales (set by DEFRA) that 95% of SSSI land should be in favourable or recovering condition by 2010. The argument is that with favourable management in place, it is only a matter of time before the feature itself becomes favourable. We have reflected this in drawing up the comparable target for NI.

During the first round of monitoring, it is difficult to make a judgment on trends in condition. Only after the second monitoring cycle will a definitive trend in feature condition become apparent. Although we have made some tentative assessments based upon an understanding of the management factors that influence habitats and species, our general assessment is that few features can be reliably assigned to the recovering category at this stage.

In the three year period since the monitoring programme began, 350 features have been assessed. The results show that a significant proportion (around one third) of the features on ASSIs are in unfavourable condition (see below).

| ALL FEATURES 2002-2004 | Favourable | Unfavourable recovering | Unfavourable |
|------------------------|------------|-------------------------|--------------|
| 350 Features | 224 | 12 | 114 |
| | 64% | 3.40% | 32.57% |

Condition Assessment Results 2002- 2004



The results vary considerably from year to year. In 2002, 20 features were unfavourable; in 2003, the corresponding figure was 25 features; in 2004, 44 features were unfavourable (see below). These represent 29%, 34% and 60% respectively of the number of features assessed in each year. Clearly in 2004, a much higher proportion of features were in unfavourable condition. This reflects in part the type of features monitored – i.e. fewer earth science features were covered in 2004, and a high proportion of earth science features tend to be in favourable condition (discussed in more detail below, Section 5).

| Year | Features Assessed | Favourable | Unfavourable recovering | Unfavourable |
|-------------|--------------------------|-------------------|--------------------------------|---------------------|
| 2002 | 68 | 48 | 0 | 20 |
| 2003 | 73 | 43 | 5 | 25 |
| 2004 | 73 | 22 | 7 | 44 |

5. Discussion of Results

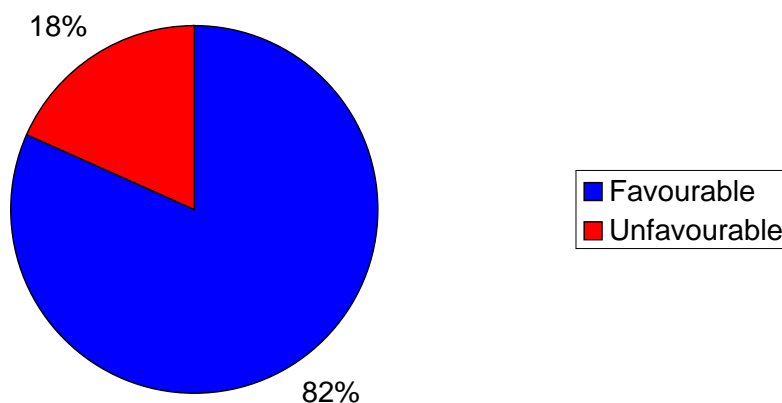
With such a small sample, it is unrealistic to provide a detailed breakdown by habitats or species, but some trends between feature types can be identified. As noted above, virtually all of the earth science features assessed to date are in favourable condition.

We have now also completed condition assessments for a number of bird features on SPAs and ASSIs. The majority (over 80%) are in favourable condition (see below).

| BIRD FEATURES* | Favourable | Unfavourable |
|----------------|------------|--------------|
| 136 Features | 111 | 25 |

* monitored yearly but formal assessment completed in 2004

Condition Assessment - Bird Features



The results for habitat features show a very different pattern compared to birds and earth science features. More than half of these are in unfavourable condition (see below).

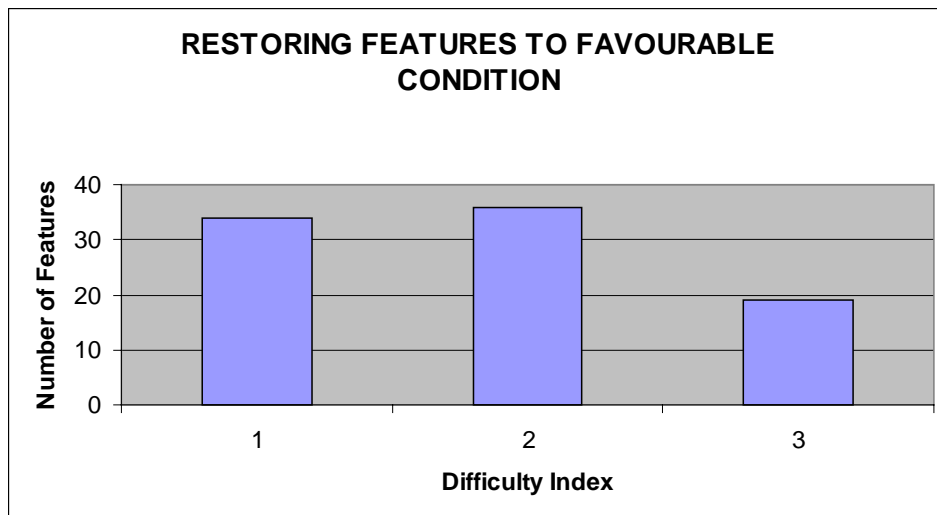
| HABITAT FEATURES | Favourable | Unfavourable recovering | Unfavourable |
|------------------|------------|-------------------------|--------------|
| 133 Features | 43 | 12 | 78 |
| Percentage | 32.33% | 9.02% | 58.65% |

6. Management Implications

Reasons for unfavourable condition on ASSIs vary. Some habitats suffer from particular problems or management issues. For example, the abundance of invasive exotic species such as Sycamore is often the reason for unfavourable condition on woodland ASSIs. Even though we have not completed any formal assessments, it is known that water quality (especially eutrophication) affects many of our freshwater features. In contrast, many fens and dunes are threatened by a lack of management, leading to rank growth and scrub encroachment. However, for the majority of features, inappropriate management - often overgrazing - is generally the main factor responsible for unfavourable condition. Perhaps of most concern is the fact that a very high proportion of

features that require some form of active and sympathetic management are in unfavourable condition.

Clearly, the management measures to restore favourable condition are site-specific. In some cases, only minor adjustments to existing management will be required to ensure that the feature begins to recover. However, in a number of cases, the issues are less straightforward and will either require expensive solutions, or involve protracted negotiations, or both. A very approximate estimate has been made of the difficulty of addressing the issues causing unfavourable condition. Three broad categories have been identified, based upon such factors as the number of landowners involved, and the management changes required (see below).



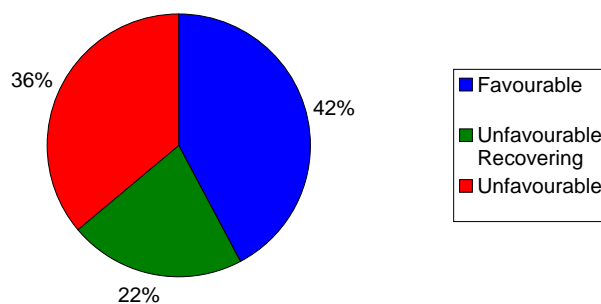
We estimate that a high proportion can be solved comparatively easily using the MOSS scheme or changes to existing management agreements (Index Value 1). A number of features are likely to pose more serious problems or take longer to solve, generally because larger numbers of landowners are involved (Index Value 2). A few features and sites present more intractable problems, either because there are very large numbers of landowners involved, or because of particular ecological processes or conditions (Index Value 3). For example, water quality is one of the most difficult issues to address, since in many cases, pollution may be from diffuse rather than point sources.

7. Conclusions

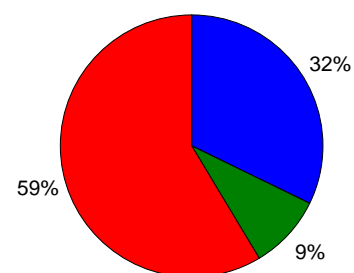
The conclusion is that a large proportion of the features for which ASSIs have been designated in NI are in unfavourable condition and to date show no evidence of recovery.

In this context, it is important to note that the rest of the UK also has a significant proportion of unfavourable SSSI features. An unpublished interim report compiled by JNCC from data collected by the UK Country Agencies shows that 29% of features on SSSIs/ASSIs are in unfavourable condition (comparable NI figure is 33%). However, there is a much more significant difference in the relative condition of habitats, with the UK figure for unfavourable habitats being 36%, compared to 59% in NI (see below).

UK Condition Assessment - Habitats



NI Condition Assessment - Habitats



It is worth reiterating the point that favourable condition describes the desired state of an interest feature, and not its condition when the site was designated. ASSIs are selected as the “best” examples of particular features, and not on the basis of their condition *per se*. Indeed, favourable condition is a recent concept and the historically declared ASSIs and their features were not selected against these new standards.

It is also important to note that there is no suggestion that the sites have deteriorated since they were designated. During the initial ASSI survey work, it was clear that many sites were not being managed in the appropriate way. It is difficult to assess trends when the relevant baseline data is unavailable, but some very rudimentary desk-top analysis suggests that most sites that are currently unfavourable were unfavourable at the time of declaration.

Given the historical legacy of a high proportion of unfavourable sites, it is hardly surprising that the NI figure for unfavourable condition is higher than the comparable percentage for the UK as a whole. Most SSSIs have been afforded protection for a longer period than ASSIs. The results are therefore disappointing, but not unexpected.

However, the figures beg the question as to the effectiveness of ASSI designation. It is important to remember that the original declarations were often made to save habitats and sites under imminent threat. Had it not been for ASSI declaration, many of these sites would probably have been severely damaged or destroyed altogether. With a few notable and generally very public exceptions, ASSI declaration has protected sites from a wide range of damaging activities, such as peat cutting on bogs, clearance of woodland, ploughing up of grasslands, drainage of wetlands, etc. What ASSI declaration has not managed to achieve yet, are the more subtle shifts in management required to bring sites into favourable condition.

Developments in the wider countryside – such as CAP reform, Water Framework Directive, Nitrates and the Phosphates Directives - will undoubtedly contribute to easing pressures on most designated sites. However, EHS will need to invest a considerable part of its own resources into achieving the long-term targets for designated sites. An aggressive and targeted campaign to persuade landowners to join the MOSS scheme will be required.