

Common Standards Monitoring
for Designated Sites: First Six Year Report

Geology



Common Standards Monitoring for Designated Sites: First Six Year Report

Legislation in the United Kingdom makes provision for Sites of Special Scientific Interest (SSSIs) designated for their biological or geological features. By March 2005, there were 6,569 SSSIs in England, Scotland and Wales, and a further 225 Areas of Special Scientific Interest in Northern Ireland (ASSIs), covering between them over 2.4 million hectares.

The United Kingdom has also entered into international commitments to establish a network of protected sites under the Ramsar Convention. Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) are required to be established under the EC Birds and Habitats Directives respectively. In many cases, the same area of land is protected by more than one designation; the basic building block is the SSSI or ASSI, which underpins the vast majority of the international site designations.

The basis of the common standards for site monitoring is that those special features for which the site was designated are assessed to determine whether they are in a satisfactory condition. The nature conservation component which is assessed is therefore 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. Key attributes of the feature (e.g. extent, quality, supporting processes) are identified and targets set for each. 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 and other factors which are likely to be affecting the site adversely, and the conservation measures taken to maintain or restore the site, are also recorded.

The report is presented in four parts:

1. Summary
2. Geology
3. Species
4. Habitats

The first part is an introduction and executive summary which draws together results across the site networks as a whole. The subsequent three parts present the detailed data collated in 44 reporting categories. A standardised set of presentations and graphics have been created for each reporting category which portray the detailed results.

This information can also be found on the JNCC website at www.jncc.gov.uk/page-3520; these data will be updated at regular intervals.

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Rock sequences

Context

Geological Conservation Review (GCR) sites are selected for, and grouped according to, GCR blocks, which are site-selection categories for nationally important Earth science sites. There are around 100 'blocks' and about 3,000 GCR sites in Britain. Each 'block' represents a particular geological age or Earth science theme, such as Marine Permian Stratigraphy, Jurassic–Cretaceous Reptilia, Caledonian Igneous Rocks and Quaternary of Scotland.

For the most part, sedimentary rock sequence sites are classified according either to their stratigraphical age (Stage, Period) or to a range of stratigraphical ages (e.g. Caradoc–Ashgill block). Blocks for some stratigraphical ages, however, were defined not purely by age, but also by geographical area or environmental setting where there were significant variations in rocks across Britain formed at the same time. This is why there are two blocks for the Devonian Period; one for marine rocks and one for non-marine rocks.

It is not possible in every case to define the stratigraphy GCR blocks by stratigraphical age. For example, where fossils are rare or absent it is difficult to locate the boundary between different geological ages. Such units are named after the geographical localities where they were defined, for example, the Wealden Group, which consists of mudstone, shale and sandstone which only occur in south-east England.

Most invertebrate fossils (e.g. trilobites, echinoderms, ammonites and other molluscs) are also addressed within the stratigraphical blocks, because these fossils are widely used in correlating rock strata. However, because of the relative rarity of fossils such as reptiles, fish, mammals, birds, terrestrial plants, insects and other arthropods (excluding trilobites) these are covered in separate palaeontological (fossil) blocks.

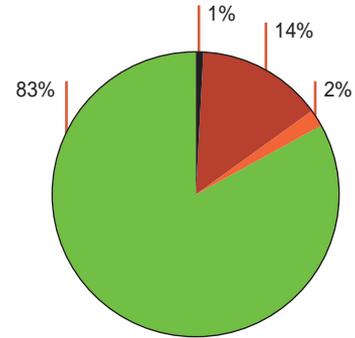
Summary statistics

	SSSI/ASSI	Total
Favourable condition	83%	83%
Main monitoring coverage	E, S, NI	
Reported assessments	859	859
Completeness of assessments	approx. 80%	
Distribution of features		UK

Number of assessments reported by country and site type

Country	SSSI/ASSI
England	725
Scotland	112
Wales	0
Northern Ireland	22
United Kingdom	859

Condition assessment - SSSI features



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

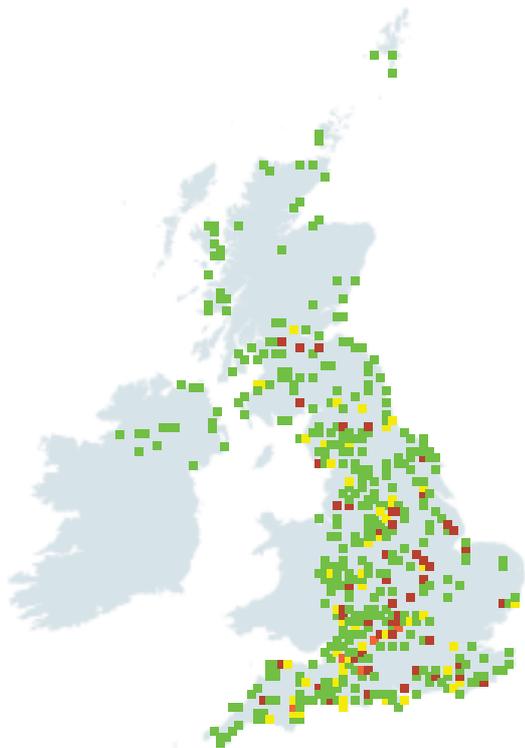
Key:



Interpretation

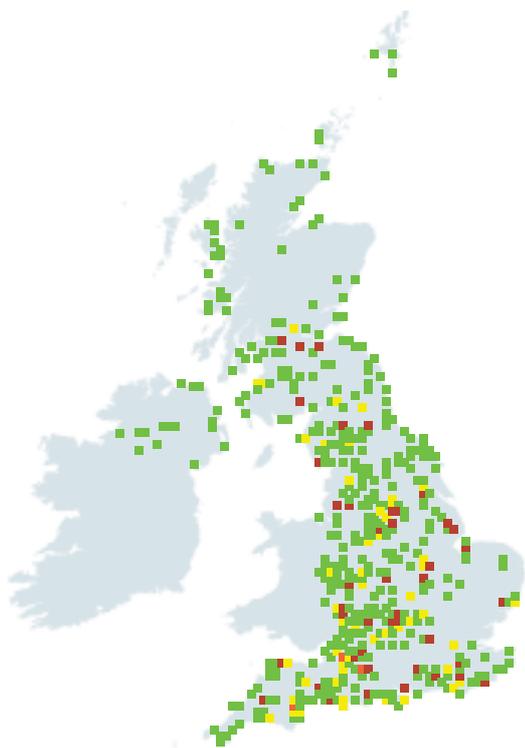
Sites with rock sequences are numerically the greatest in the A/SSSI series for geological sites. The assessments made represent about 80% of sites with stratigraphical features. 83% of features reported are in favourable condition, with a further 2% of features in unfavourable-recovering condition. This level of favourable condition is below the average for geological features, but well above the average for all features combined.

Data on the reasons for sites being in unfavourable condition, or measures helping them to become or remain favourable, were reported for only a subset of the features assessed. However, the principal reason reported for sites being unfavourable is that the feature is obscured. Many sites have a management agreement in place; this will include measures to keep the feature exposed.



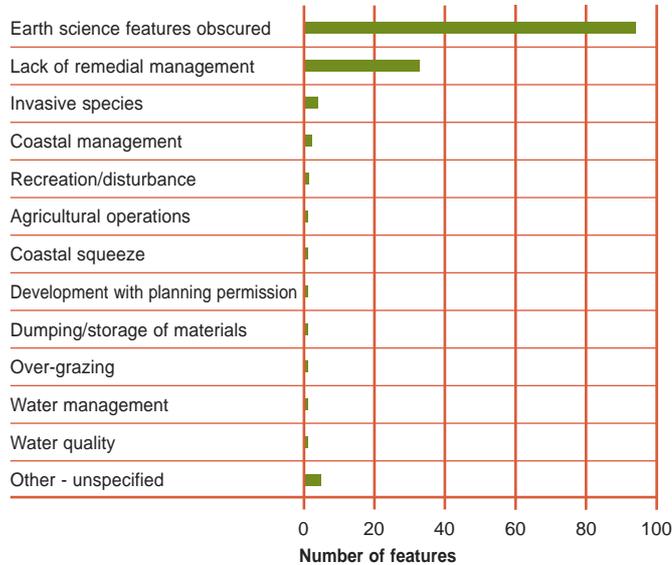
Current condition of SSSI/ASSI features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



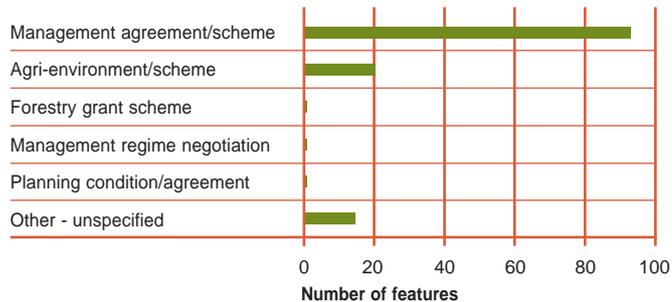
Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'

The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. This map shows the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



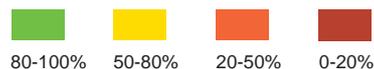
The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

SSSI features

Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Key: Proportion of assessed features on 10km squares that are favourable:



Fossils

Context

Geological Conservation Review (GCR) sites are selected for, and grouped according to, GCR blocks, which are site-selection categories for nationally important Earth science sites. There are around 100 'blocks' and about 3,000 GCR sites in Britain. Each 'block' represents a particular geological age or Earth science theme, such as Marine Permian Stratigraphy, Jurassic–Cretaceous Reptilia, Caledonian Igneous Rocks and Quaternary of Scotland.

Fossil (palaeontological) blocks address the evolution and diversity of significant animal and plant groups which are not included in the stratigraphy (rock sequence) blocks and therefore have independent block status. Most invertebrate fossils (e.g. trilobites, echinoderms, ammonites and other molluscs) are addressed within the stratigraphical blocks, because these fossils are widely used in correlating rock strata. However, because of the relative rarity of fossils such as reptiles, fish, mammals, birds, terrestrial plants, insects and other arthropods (excluding trilobites), these are covered in separate palaeontological blocks. Geological time is used as the basis to refine the definition of some blocks, for example, Jurassic–Cretaceous Reptilia.

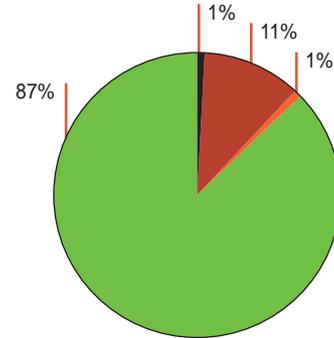
Summary statistics

	SSSI/ASSI	Total
Favourable condition	87%	87%
Main monitoring coverage	E, S	
Reported assessments	274	274
Completeness of assessments	approx. 75%	
Distribution of features		UK

Number of assessments reported by country and site type

Country	SSSI/ASSI
England	202
Scotland	69
Wales	0
Northern Ireland	3
United Kingdom	274

Condition assessment - SSSI features



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:



Interpretation

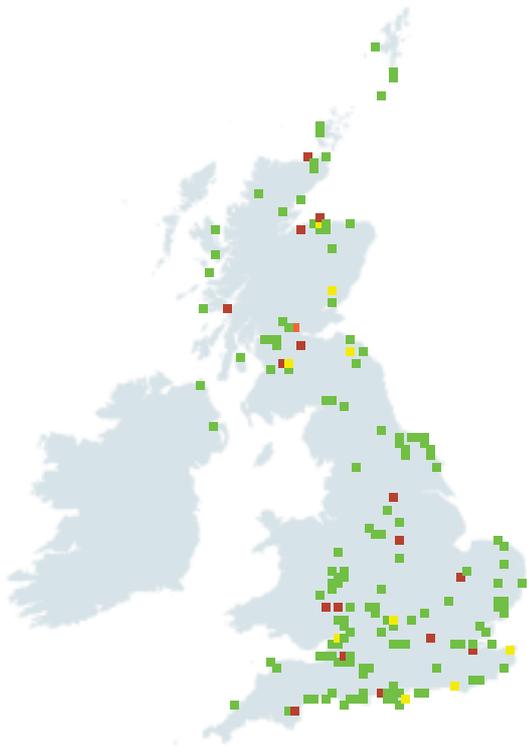
About 75% of sites with fossils as notified features are accounted for in the report, 87% of which are reported in favourable condition. This is about the average for geological features and well above the average for all features combined. 1% of features reported are unfavourable-recovering.

The reasons for unfavourable condition in the majority of these cases is more likely to be that the sites are obscured in some way, rather than because of damage by fossil collectors.



Current condition of SSSI/ASSI features

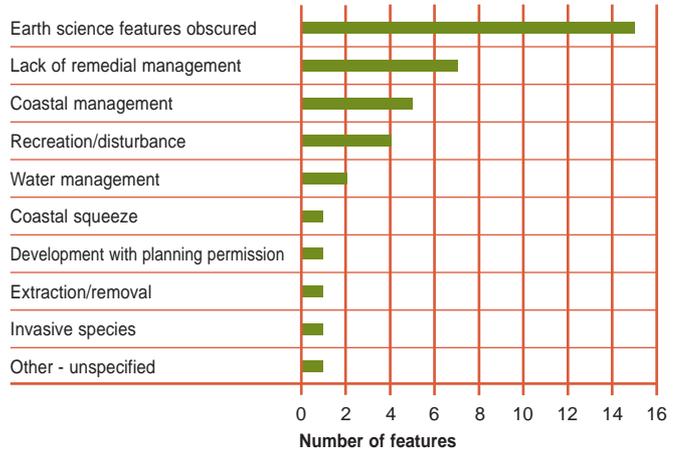
Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'

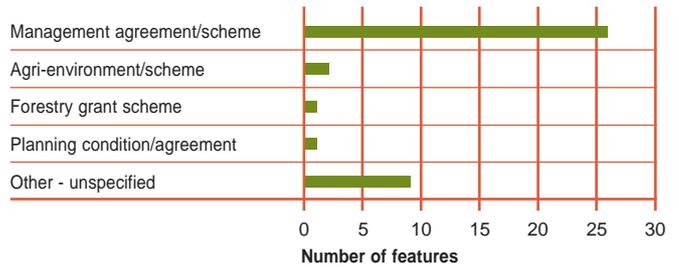
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. This map shows the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



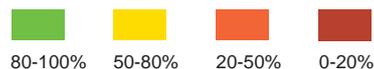
The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

SSSI features

Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Key: Proportion of assessed features on 10km squares that are favourable:



Ice Age landforms and sediments

Context

Geological Conservation Review (GCR) sites are selected for, and grouped according to, GCR blocks, which are site-selection categories for nationally important Earth science sites. There are around 100 'blocks' and about 3,000 GCR sites in Britain. Each 'block' represents a particular geological age or Earth science theme, such as Marine Permian Stratigraphy, Jurassic–Cretaceous Reptilia, Caledonian Igneous Rocks and Quaternary of Scotland.

The landforms and sediments blocks are classified on a regional basis, although the sub-division of time (usually stratigraphical age) is an important factor. Sites were selected to represent the stratigraphy of Quaternary successions and the development of landforms.

During the Quaternary Period northern Britain was covered by a succession of ice sheets, while southernmost Britain was not glaciated, although frozen ground conditions were experienced. The wide variation of ice-age sediments and geomorphological features across Britain, and the large number of sites available for study, have required the use of three principal themes for the basis of the Geological Conservation Review Quaternary site selection:

1. Environmental history and change based on the stratigraphy at different localities, their age and fossil content, e.g. glacial-interglacial history, sea-level change;
2. Processes and patterns of landscape evolution, e.g. glaciation, periglaciation;
3. The history and development of the flora and fauna, e.g. vegetation history, evolution of vertebrates.

In choosing GCR sites, comparisons were made between the regional Quaternary blocks to ensure that certain categories of site were not over-represented.

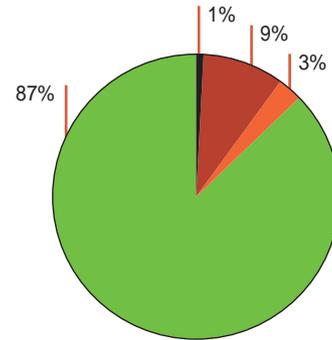
Summary statistics

	SSSI/ASSI	Total
Favourable condition*	88%	88%
Main monitoring coverage	E, S, NI	
Reported assessments	410	410
Completeness of assessments	approx. 75%	
Distribution of features		UK

Number of assessments reported by country and site type

Country	SSSI/ASSI
England	282
Scotland	111
Wales	0
Northern Ireland	17
United Kingdom	410

Condition assessment - SSSI features



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

Key:



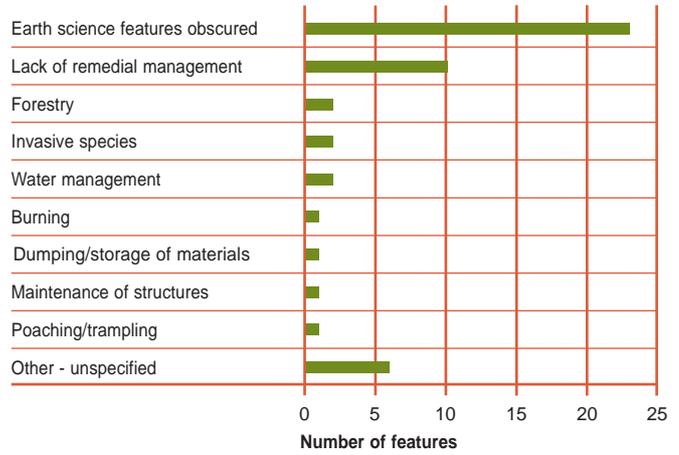
Interpretation

About 75% of sites with Quaternary features are accounted for, of which 88% are reported in favourable condition. This is about the average for geological features and well above the average for all features combined. 3% of features reported are unfavourable-recovering.

The main reasons for unfavourable condition are that the geology or landscape is obscured in some way.

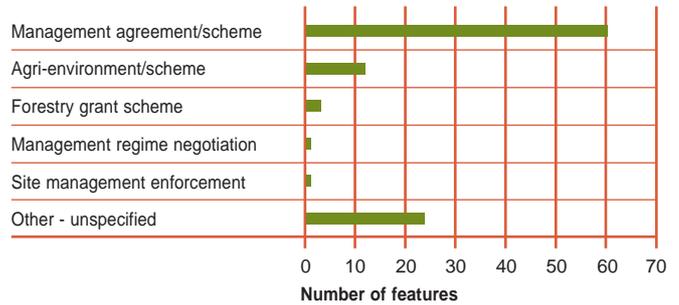
*Note: the figure for favourable condition in the pie chart is marginally different from that shown in the summary statistics table - this is a result of rounding to show small segments effectively; the figures in the summary statistics table are correct.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



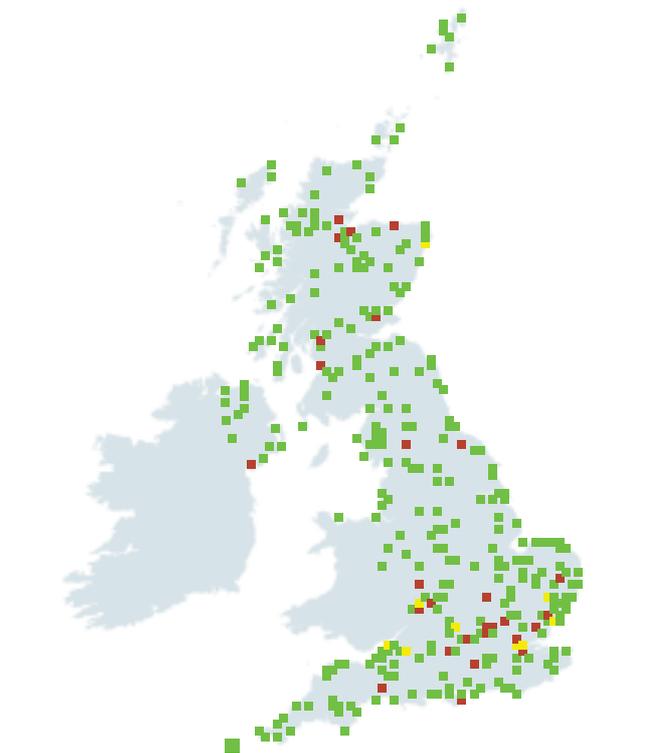
The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

 SSSI features

Current condition of SSSI/ASSI features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).

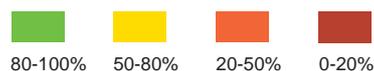


Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'

The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. This map shows the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Key: Proportion of assessed features on 10km squares that are favourable:



Volcanic rocks

Context

Geological Conservation Review (GCR) sites are selected for, and grouped according to, GCR blocks, which are site-selection categories for nationally important Earth science sites. There are around 100 'blocks' and about 3,000 GCR sites in Britain. Each 'block' represents a particular geological age or Earth science theme, such as Marine Permian Stratigraphy, Jurassic–Cretaceous Reptilia, Caledonian Igneous Rocks and Quaternary of Scotland.

The volcanic (igneous) geology blocks relate to the formation of rocks originating from magma (molten rock) according to major periods of mountain building activity, such as during the Caledonian mountain-building episode.

Major episodes of volcanic activity form the basis of six igneous Geological Conservation Review blocks, and these are linked to mountain building (e.g. south-west England igneous), and the opening of oceans (e.g. Tertiary igneous).

Summary statistics

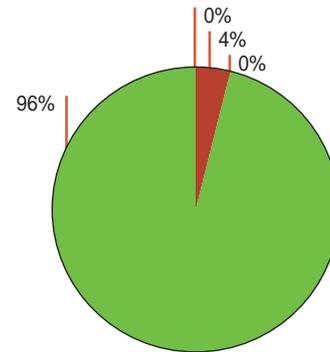
	SSSI/ASSI	Total
Favourable condition*	95%	95%
Main monitoring coverage	E, S, NI	
Reported assessments	215	215
Completeness of assessments	approx. 70%	
Distribution of features		UK

Number of assessments reported by country and site type

Country	SSSI/ASSI
England	89
Scotland	108
Wales	0
Northern Ireland	18
United Kingdom	215

*Note: the figure for favourable condition in the pie chart is marginally different from that shown in the summary statistics table - this is a result of rounding to show small segments effectively; the figures in the summary statistics table are correct.

Condition assessment - SSSI features



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

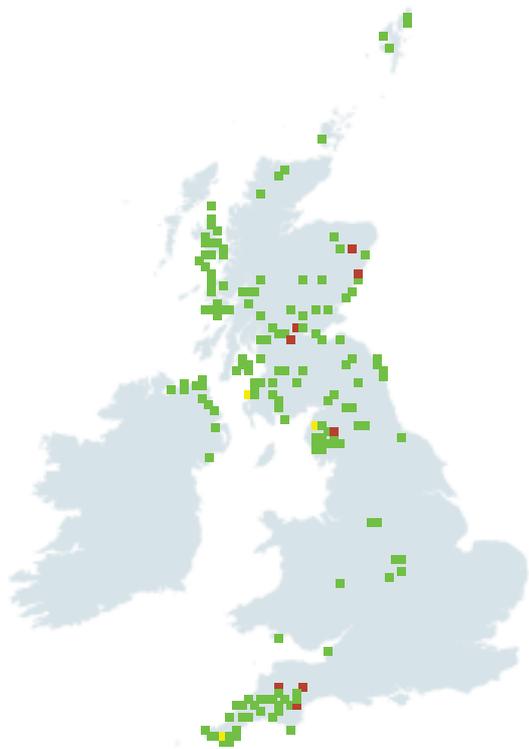
Key:



Interpretation

About 70% of the sites with volcanic (igneous) rock features are accounted for in the report, of which 95% are reported in favourable condition. This is above the average for geological features and well above the average for all features combined. 0.5% of features reported are unfavourable-recovering.

Most localities for igneous rocks are robust (hard rock) and less likely to be affected by activities that are damaging to soft rock or dynamic landscapes. Where they are unfavourable, the main reason reported is that the geology is obscured, i.e. not 'visible' or 'exposed', probably because of vegetation or scree cover.



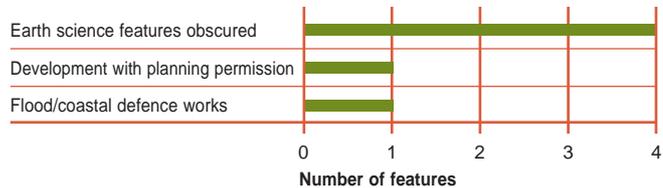
Current condition of SSSI/ASSI features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



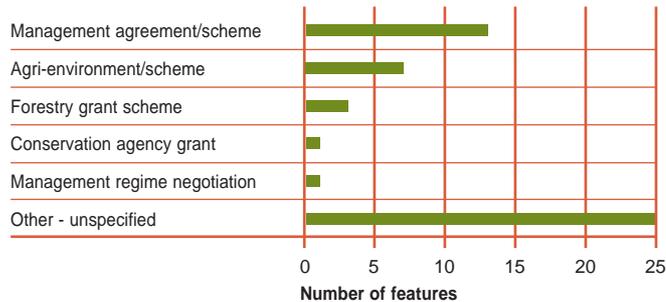
Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'

The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. This map shows the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



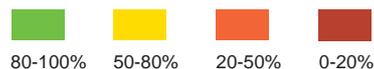
The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

 SSSI features

Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Key: Proportion of assessed features on 10km squares that are favourable:



Folds, faults and rock movements

Context

Geological Conservation Review (GCR) sites are selected for, and grouped according to, GCR blocks, which are site-selection categories for nationally important Earth science sites. There are around 100 'blocks' and about 3,000 GCR sites in Britain. Each 'block' represents a particular geological age or Earth science theme, such as Marine Permian Stratigraphy, Jurassic–Cretaceous Reptilia, Caledonian Igneous Rocks and Quaternary of Scotland.

The structural and metamorphic geology blocks relate to the effects of mountain-building activity. The GCR blocks reflect the variation across Britain in the deformation processes during three major mountain building episodes (Caledonian, Variscan and Alpine). These blocks include geological features such as folds and faults and other effects resulting from compressional and tensional forces acting within the crust of the Earth.

Four blocks relate to Precambrian rocks in Scotland: Torridonian, Moine, Lewisian and Dalradian. Three of these, Moine, Lewisian and Dalradian, have been deformed and metamorphosed during mountain building.

Summary statistics

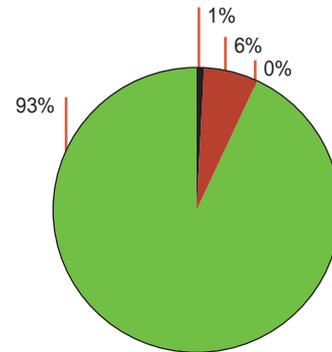
	SSSI/ASSI	Total
Favourable condition*	94%	94%
Main monitoring coverage	E, S	
Reported assessments	139	139
Completeness of assessments	approx. 40%	
Distribution of features		UK

Number of assessments reported by country and site type

Country	SSSI/ASSI
England	45
Scotland	93
Wales	0
Northern Ireland	1
United Kingdom	139

*Note: the figure for favourable condition in the pie chart is marginally different from that shown in the summary statistics table - this is a result of rounding to show small segments effectively; the figures in the summary statistics table are correct.

Condition assessment - SSSI features



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

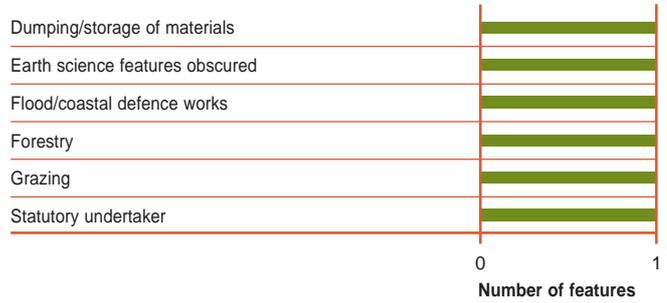
Key:



Interpretation

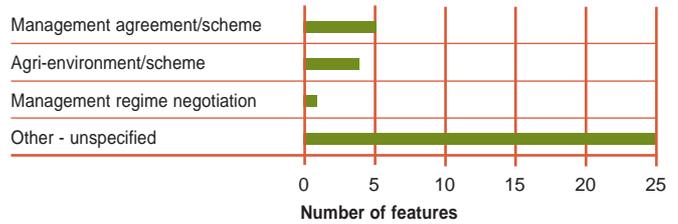
About 40% of sites with folds, faults and rock movements are accounted for in the report, of which 94% are reported in favourable condition. This is above the average for geological features and well above the average for all features combined.

This is an expected result, because most features are robust (hard) rocks and less likely to be affected by activities that are damaging to soft rock or dynamic landscapes.



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

SSSI features

Current condition of SSSI/ASSI features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).

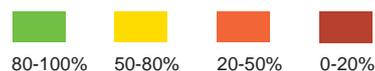


Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'

The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. This map shows the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Key: Proportion of assessed features on 10km squares that are favourable:



Minerals

Context

Geological Conservation Review (GCR) sites are selected for, and grouped according to, GCR blocks, which are site-selection categories for nationally important Earth science sites. There are around 100 'blocks' and about 3,000 GCR sites in Britain. Each 'block' represents a particular geological age or Earth science theme, such as Marine Permian Stratigraphy, Jurassic-Cretaceous Reptilia, Caledonian Igneous Rocks and Quaternary of Scotland.

The mineral blocks represent scientifically-important, mineral-bearing rock bodies, produced as the result of igneous, metamorphic or sedimentary processes, including those that

- have metal, or metal-ore-bearing rock bodies (e.g. gold, tin, lead, copper, zinc and iron lodes);
- provide evidence for the geological development of British mineral-bearing rocks, and co-incidentally have led to its mining heritage;
- provide materials such as china clay, barite, gypsum, and rare crystalline materials, such as Blue John, zeolites or garnet.

All of these provide evidence for the geological development of the United Kingdom.

Summary statistics

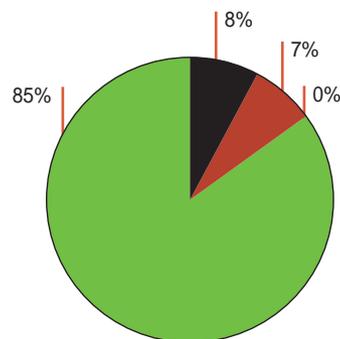
	SSSI/ASSI	Total
Favourable condition*	86%	86%
Main monitoring coverage	E, S	
Reported assessments	120	120
Completeness of assessments	approx. 66%	
Distribution of features		UK

Number of assessments reported by country and site type

Country	SSSI/ASSI
England	86
Scotland	33
Wales	0
Northern Ireland	1
United Kingdom	120

*Note: the figure for favourable condition in the pie chart is marginally different from that shown in the summary statistics table - this is a result of rounding to show small segments effectively; the figures in the summary statistics table are correct.

Condition assessment - SSSI features



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

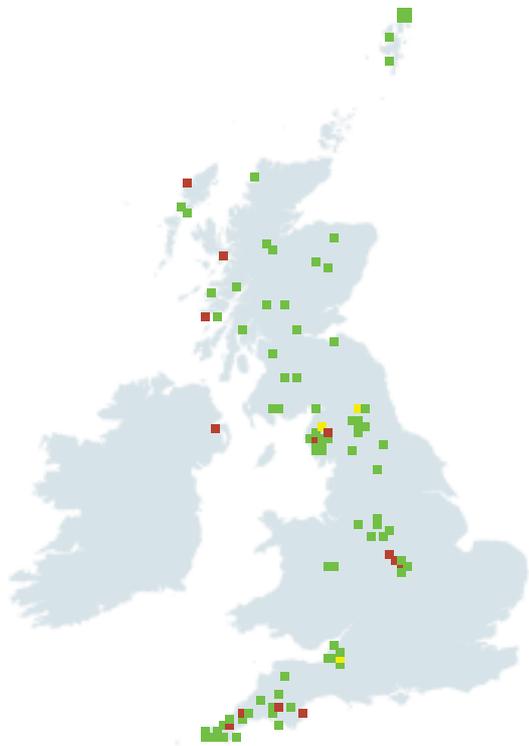
Key:



Interpretation

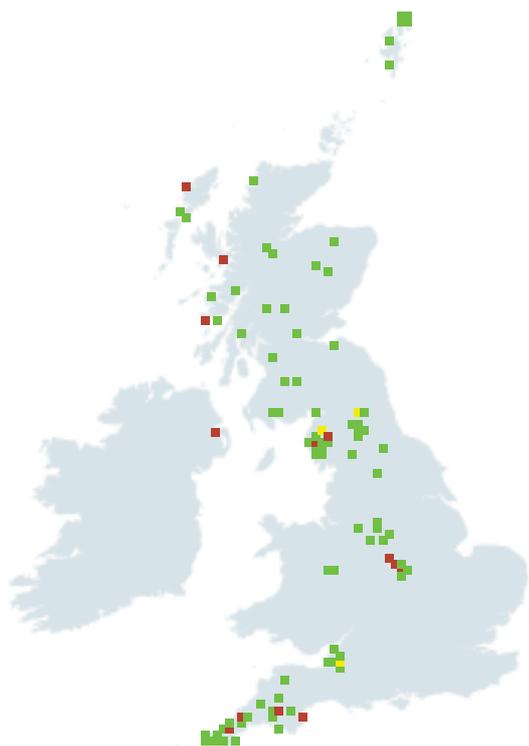
About two-thirds of sites with mineral features are accounted for in the report; 86% of them are reported in favourable condition. This is about the average for geological features and well above the average for all features combined. 7.5% of features reported are partially or completely destroyed. This stands-out compared to either geological or all features.

Like volcanic rocks, the reasons reported for unfavourable condition are through the feature(s) being obscured in some way. The minerals category stands out as more susceptible to destruction, and this is partly a consequence of the localised nature of the features. In each of the cases where this is reported, it is the result of removal of the mineral specimens or mineral-bearing rock, such that the feature is reduced or no longer present at the site.



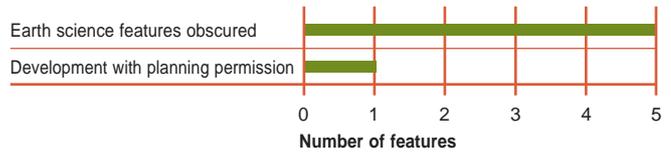
Current condition of SSSI/ASSI features

Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'

The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. This map shows the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



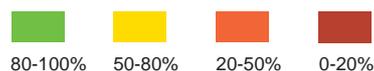
The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

SSSI features

Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Key: Proportion of assessed features on 10km squares that are favourable:



Active landforms

Context

Geological Conservation Review (GCR) sites are selected for, and grouped according to, GCR blocks, which are site-selection categories for nationally important Earth science sites. There are around 100 'blocks' and about 3,000 GCR sites in Britain. Each 'block' represents a particular geological age or Earth science theme, such as Marine Permian Stratigraphy, Jurassic–Cretaceous Reptilia, Caledonian Igneous Rocks and Quaternary of Scotland.

Geomorphology blocks cover the history and development of landforms and geomorphological processes active today, for example, rivers, coasts and landslides. Unlike geological sites where processes can only be inferred, active geomorphological sites provide open-air laboratories where processes can be studied.

Because geomorphology influences landscape and habitat, there is great potential for integrating the physical and biological components of nature conservation in geomorphological sites.

Summary statistics

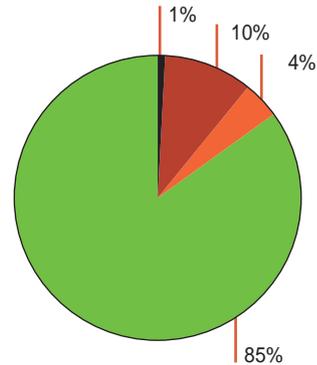
	SSSI/ASSI	Total
Favourable condition*	86%	86%
Main monitoring coverage	E, S, NI	
Reported assessments	225	225
Completeness of assessments	approx. 80%	
Distribution of features		UK

Number of assessments reported by country and site type

Country	SSSI/ASSI
England	156
Scotland	57
Wales	0
Northern Ireland	12
United Kingdom	225

*Note: the figure for favourable condition in the pie chart is marginally different from that shown in the summary statistics table - this is a result of rounding to show small segments effectively; the figures in the summary statistics table are correct.

Condition assessment - SSSI features



Proportion of assessments falling into each of the condition categories. Note that the unfavourable category includes all reports of unfavourable condition except unfavourable-recovering, which is shown as a separate segment.

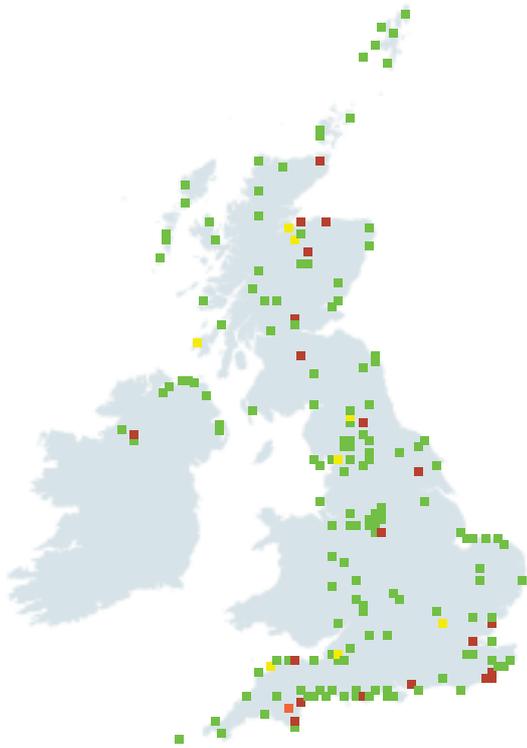
Key:



Interpretation

Approximately two-thirds of sites with active geomorphological features are accounted for in the report, and of these, 86% (including caves and karst features, and fluvial and coastal geomorphology) are in favourable condition. This is about the average for geological features and well above the average for all features combined. 4% of features reported are unfavourable-recovering.

The data are, however, too sparse to detect any trends in the reasons for unfavourable condition. Active geomorphology sites are typically complex, dynamic environments, are often large in size, and continue to prove to be one of the most difficult types of site to monitor.



Current condition of SSSI/ASSI features

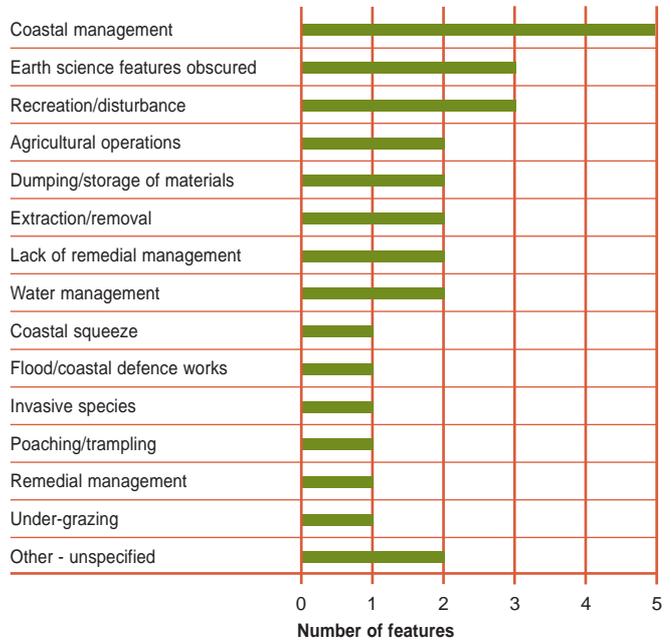
Distribution of features showing assessments of favourability (where unfavourable-recovering is counted as unfavourable).



Condition of SSSI/ASSI features, with those currently reported as unfavourable-recovering shown as 'favourable'

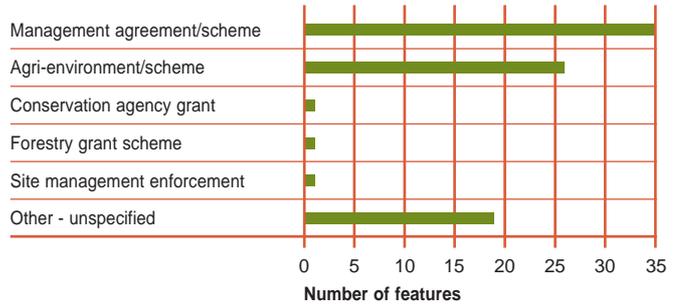
The implication of the unfavourable-recovering condition assessments is that at some point in the future these features should become favourable. This map shows the effect of that recovery by counting the favourable and unfavourable-recovering assessments together.

Adverse activities



The number of interest features where an activity has been reported as being implicated in the unfavourable condition of a feature. More than one adverse activity may be reported for each feature.

Management measures



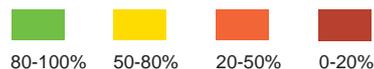
The number of interest features where a measure has been taken on a site to improve or maintain the condition of an interest feature. More than one measure may be reported for each feature.

Key:

 SSSI features

Important Note: we do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

Key: Proportion of assessed features on 10km squares that are favourable:



Data Preparation

Common Standards Monitoring was piloted in 1998 and implementation commenced in April 1999. This report is based on data for the period April 1998 - March 2005. The data were provided by the country agencies to JNCC in July and August 2005, using a standard proforma.

JNCC collated these four sets of data (one each for England, Scotland, Northern Ireland, and Wales) into a UK wide database of condition assessments for features on SSSIs (ASSIs in Northern Ireland), SACs, SPAs and Ramsar sites. The database contains a row for each feature reported on each designated site. A feature on a double-badged site (e.g. a site designated both as a SSSI *and* as a SAC) is recorded as two rows in the database - one row for each designation type. Any reader wishing access to the raw data on which this report is based should make their request to the relevant country agency monitoring contact (see www.jncc.gov.uk/page-3592 for details).

Data were split into 44 reporting categories based on Biodiversity Action Plan broad habitats, taxonomic groups, and broad divisions of earth science. Every assessment was assigned to a single reporting category. JNCC developed standard graphs, maps, and tabulations for each reporting category. For SACs and SPAs, JNCC are able to collate lists of qualifying features that have not yet been assessed. This cannot be done for SSSIs because there is not yet a UK-wide list of notified interest features.

In addition to the condition assessments, data were also collated on 'adverse activities' and 'management measures'. 'Adverse activities' are those factors which are thought to be leading the feature into unfavourable condition. 'Management measures' are the actions which are helping

to maintain favourable condition, or return a feature from unfavourable to favourable condition. More than one activity or measure can be recorded for each assessment of the condition of a feature.

To facilitate map display on the website and hard copy report, it was decided to display the spatial locations of the assessments on a 10km square basis. For each and every monitoring assessment a 10km square is calculated based on the site centroid.

The condition maps use this 10km square to group all of the condition assessments within a reporting category - for example, ten different assessments are reported for lowland calcareous grassland on SSSIs within grid square ST45. As only one of these ten, i.e. 10%, is currently favourable, this square is coloured red on the 'current' SSSI condition map for lowland calcareous grassland. The 'future' map shows this square as green. This is because seven of the ten features are currently 'unfavourable-recovering'. Assuming that recovery is achieved for these seven features, at a point in the foreseeable future, eight out of ten, i.e. 80%, of the lowland calcareous grassland features within square ST45 will be favourable. Note that no prediction is made on the timescale for recovery for any feature.

For large SACs (i.e. those falling into more than one 10km squares), condition assessments have been allocated to all the 10km square which, to the best of our knowledge, host the feature. This has been possible because for SACs there are 10km square distribution maps for each interest feature. JNCC do not hold equivalent spatial data for SPA, Ramsar or SSSI sites and have, therefore, only been able to use the site centroid to locate the interest features on these site types.

Geology

The Joint Nature Conservation Committee (JNCC) is the forum through which the three country nature conservation agencies - English Nature, Scottish Natural Heritage (SNH), and the Countryside Council for Wales (CCW) - deliver their statutory responsibilities for Great Britain as a whole and internationally. The Committee consists of representatives of these agencies, as well as the Countryside Agency, independent members, and non-voting members appointed by the Department of the Environment, Northern Ireland.

JNCC's statutory responsibilities, known as the special functions, contribute to maintaining and enriching biological diversity, enhancing geological features and sustaining natural systems.

The special functions are principally to:

- advise ministers on the development of policies for, or affecting, nature conservation in Great Britain and internationally;
- provide advice and knowledge to anyone on nature conservation issues affecting Great Britain and internationally;
- establish common standards throughout Great Britain for the monitoring of nature conservation and for research into nature conservation and the analysis of results;
- commission or support research which the Committee deems relevant to the special functions.

Increasingly, JNCC is implementing its national advisory functions on a United Kingdom basis, and is working closely with the Environment and Heritage Service, Northern Ireland. JNCC was established under statute by the Environmental Protection Act 1990 and commenced its work in April 1991. In 2005, its support unit became a company limited by guarantee, allowing the organisation to, amongst other benefits, employ its own staff and let its own contracts.

Details of publications produced by JNCC are available from:

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