GLOUCESTERSHIRE KEY WILDLIFE SITES

HANDBOOK

Key Wildlife Sites (KWS) in Gloucestershire

This document sets out the background, partnership structure, rationale, guiding principles and minimum criteria for the selection of locally important sites for biodiversity in Gloucestershire. Each county has a comparable system. Whilst DEFRA and other national organisations generally just refer to such sites as "Local Sites", locally they may have a number of different names. In Gloucestershire they are known as Key Wildlife Sites or KWS.

Gloucestershire's Key Wildlife Sites System follows national guidelines[1], and aims to provide a logical and consistent basis for site selection by using recognised nature conservation principles. KWS form part of a Local Sites system which also includes sites chosen for their geological importance – these are explained in a companion document produced by the Gloucestershire Geology Trust. It should be borne in mind that in some cases both sets of criteria may apply to a single site, in which case the site management will need to be assessed carefully so as to avoid conserving one aspect of the site at the expense of other features.

Details of the background, context, terminology and status of Local Sites are explained in Part 1 of the Handbook. Part 2 concerns the Criteria by which Key Wildlife Sites are identified, and guidance about the minimum thresholds for selecting a site. A set of Appendices covers supporting information such as example assessment sheets, extracts from relevant legislation and species lists for comparison with minimum thresholds for site selection.

If you have any queries or would like further information on Key Wildlife Sites, please contact Gloucestershire Wildlife Trust's Key Wildlife Sites Officer:

Tel: 01452 383333
info@gloucestershirewildlifetrust.co.uk
www.gloucestershirewildlifetrust.co.uk

[1]This handbook has been compiled with reference to the document *Local Sites: Guidance on their Identification, Selection and Management* produced by Defra (HMSO, 2006).

Support for Gloucestershire's Key Wildlife Sites System

Gloucestershire's Key Wildife Sites Handbook has been produced by Gloucestershire Centre for Environmental Records on behalf of the Gloucestershire Wildlife Sites Partnership, which approved the original Handbook in September 2010 following detailed consultation. KWS surveys and monitoring are operated by Gloucestershire Wildlife Trust, in conjunction with a Site Selection Panel drawn from the wider Partnership. The Partnership currently consists of representatives of the following organisations:

Cheltenham Borough Council

Cotswolds Conservation Board

Cotswold District Council

Cotswold Water Park Society

Country Land & Business Association (CLA)

Forest of Dean District Council

Forestry Commission

Farming and Wildlife Advisory Group

Gloucester City Council

Gloucestershire Biodiversity Partnership

Gloucestershire Centre for Environmental Records

Gloucestershire Geology Trust

Gloucestershire Naturalists' Society

Gloucestershire Orchard Group

Gloucestershire Wildlife Trust

Gloucesteshire County Council

National Trust

Natural England

National Farmers' Union

Stroud District Council

Tewkesbury Borough Council

Wye Valley AONB (Area of Outstanding Natural Beauty) Unit

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Bee orchid *Ophrys apifera,* a plant which favours limestone grassland and other lime-rich sites

Part 1: Background and guiding principles

1.1 Key Wildlife Sites in context

Conserving biodiversity

The overriding aim of the Key Wildlife Sites (KWS) system is to benefit the county's store of biodiversity. Biological diversity or biodiversity is the general name for the variety of living organisms and the systems and communities that they live in. This includes habitats, species and genetic diversity. The 1992 Earth Summit in Rio de Janeiro set in train the UK Biodiversity Action Plan process that resulted, in Gloucestershire, in the production of a Local Biodiversity Action Plan for the county. The current list of UK Priority Habitats and Priority Species derives from earlier Biodiversity Action Plans, and the KWS criteria recognised these as well as species of local interest previously identified in the Local Biodiversity Action Plan.

Biodiversity in Gloucestershire

Gloucestershire is a highly diverse county ranging from the Wye Valley with its ancient ravine woodlands in the west, to the streams of the Cotswold plateau in the east. The county fits into three key Natural Areas: the acid grassland, bogs, heathland, and oak woodland in the Forest of Dean, The Severn Vale and its floodplain, and the Cotswold escarpment with acres of unspoilt limestone grassland and beech woodland. The concept of Natural Areas was developed to reflect wildlife, underlying geology, soils and culture of different parts of the UK, and to integrate national and local conservation priorities. They set the context for the selection of national and local wildlife sites. A full list of Natural Areas, with descriptions, may be found on the Natural England website.

What is a Local Wildlife Sites System?

The term Local Site may be subdivided into Local Wildlife Site (LWS), Local Geological Site or Local Wildlife/Geological Site where interests coincide. Local Wildlife Sites, or Key Wildlife Sites (KWS) as they are known in Gloucestershire, are defined areas, identified and selected for their nature conservation value based on important, distinctive and threatened habitats and species within a

national, regional and local context. The principle is that a KWS contains features of substantive nature conservation value. The purpose of selection is to provide recognition of its value and to help conserve those features by affording it a degree of protection and helping to target appropriate conservation management.

Local Wildlife Sites (LWS) systems now exist across most of the U.K. A LWS system enables the identification, selection, assessment and protection of Local Sites with the ultimate objective of ensuring conservation and enhancement of habitats and species. Local Sites such as Gloucestershire's Key Wildlife Sites represent local character and distinctiveness, and can contribute to the quality of life and the well-being of the community by providing opportunities for research, education and informal recreation.

Although they are often considered secondary to the "statutory" protected sites such as Sites of Special Scientific Interest, the comprehensive network of sites selected within LWS systems contribute significantly to delivering both UK and Local Biodiversity Action Plan targets. It should be borne in mind that, because statutory site protection such as SSSI designation will only cover a representative series of the sites which meet the right criteria, a LWS may meet SSSI criteria and have a similar range of rare species and habitats.

1.2 Aims and purpose of Gloucestershire's Key Wildlife Sites system

The overall aim of a Local Sites system is favourable conservation management status for all sites of nature conservation or geological importance which are not already protected by law.

In Gloucestershire Local Sites have historically been known as Key Wildlife Sites, a title which has been kept to avoid confusion. The practical purposes of the KWS System are to identify, protect and enhance the most important places for wildlife outside legally protected land. The 'system' is a simple way of describing the processes involved in the selection and assessment of sites, the informing and advising of landowners and managers about management, and the protection and monitoring of sites. In broad terms sites are selected by assessing their wildlife importance in a county context. Survey data are gathered and then assessed against carefully-constructed selection criteria.

Site which meet the thresholds contained within the selection criteria are then put forward for selection, and designated as KWS where it is accepted that they meet the Criteria. In order to achieve this for Gloucestershire, the Key Wildlife Sites system has several requirements:

- To identify all areas of Gloucestershire which are of significant conservation importance in a county context
- To disseminate knowledge of the distribution and status of Gloucestershire's biodiversity in association with the Gloucestershire Centre for Environmental Records
- To inform landowners of the conservation interest of their sites, and to encourage sympathetic management
- To help the targeting of resources for conservation purposes to priority sites
- To ensure that conservation projects are set up using up-to-date site information
- To inform the decision-making processes of local authorities and other statutory organisations
- To enable local authorities and other statutory organisations to develop specific strategic policies relating to nature conservation
- To provide a focus for specialist biological and earth science recording and monitoring
- To raise awareness of the significant importance of conservation in the wider countryside outside of nature reserves and statutorily protected sites

An integrated and effective system can contribute greatly to the conservation of Priority Habitats and Species, however for the effective operation of the system as described in the following sections adequate resourcing is essential. It is the view of the Gloucestershire Wildlife Sites Partnership that an adequate system cannot be achieved without the support of at least one full-time Wildlife Sites Officer (or equivalent part-timers) in order to maintain continuity of contact with landowners and take full advantage of the opportunities for both site survey and management advice.

The KWS system is intended to be flexible, 'live' and capable of evolving. As information becomes available, newly-discovered sites that meet the selection criteria can be added and existing ones amended. Where appropriate, sites may also be removed.

Once the requirements and resources of the system are met, Key Wildlife Sites provide the framework for:

- The selection (and occasional deselection) of KWS
- Site survey
- Notifying landowners
- The compilation and updating of a KWS register
- The dissemination of information on KWS
- Liaison with land owners and managers
- KWS condition monitoring
- Site safeguard and management
- Raising awareness of the importance of KWS

1.3 Local Sites vs. statutory protected sites

The best representative sites for biodiversity importance in the UK are designated as Sites of Special Scientific Interest (SSSIs). There are presently some 120 SSSIs in Gloucestershire protected under the provisions of the Wildlife and Countryside Act 1981, and more recently under Schedule 9 of the Countryside and Rights Of Way Act 2000. Around 30 of these sites are designated for their geological importance. The remainder represent the 'top tier' of wildlife sites in the county, being of national or in some cases international importance. The latter have either been classified as Special Protection Areas or Special Areas of Conservation and/or Ramsar sites, i.e. they are part of an international series of the most important wildlife areas in the world. Some may also be National Nature Reserves.

The SSSI system is representative rather than comprehensive, hence many sites that meet the criteria for SSSI selection are not designated as such.

Local features which are important for the conservation of biodiversity within a county context may be missed by the national series of SSSI designations because of their relative abundance at a national scale. The conservation of the county's wildlife heritage therefore demands a strategy that addresses the needs of wildlife in the wider countryside, outside of the handful of statutory protected sites. The identification and conservation of a wider network of important wildlife sites such as KWSs is a major element in such a strategy.

Wild daffodils at Shaw Common, Forest of Dean. This Key Wildlife Site is large and diverse, and comes close to matching the criteria for a SSSI

Local Sites may match the criteria for selection of SSSIs, or they may be chosen for their importance in a more local context. They can be found on public and private land. They vary in shape and size and may encompass a variety of different habitat types such as ancient woodland, species-rich grassland, rivers and streams or ponds. They may also be identified for their particular species interest regardless of the habitats present. In either case, their wildlife importance often results from historic management practices. These sites play a vital role in the conservation of the UK's natural heritage by providing essential wildlife refuges, stepping-stones, corridors and buffers linking and protecting other site networks and open spaces found both in urban areas and in the wider countryside.

Unlike the representative series of SSSIs, Local Sites are selected on a comprehensive basis, and it is intended that **all** sites that meet the given selection criteria are designated. Therefore, whilst they are often viewed as a tier below SSSIs, in terms of their collective conservation value in reality this is not the case. The comprehensive nature of Local Sites means that, as a suite, they are of national importance for biodiversity, supporting significant areas of UK Priority Habitats.

1.4 Key Wildlife Sites vs. other non-statutory sites

Two other well-established local non-statutory designations are in use in Gloucestershire, the best examples of which may qualify as Key Wildlife Sites:

Conservation Road Verges (CRVs)

Some roadside verges are of botanical significance, supporting remnant wildflower assemblages and in some cases providing habitat to support nationally scarce or rare species. Verges also establish continuity of habitat across intensively managed land and can form important sanctuaries for a wide range of wildlife including small mammals and invertebrates.

Gloucestershire County Council and Gloucestershire Wildlife Trust co-ordinate efforts to identify and protect verges of wildlife value in the County. A few of these verges have been additionally selected as Key Wildlife Sites, while the rest are only selected as Conservation Road Verges (CRVs). By working together, activities are ongoing to ensure that these verges receive appropriate conservation management as part of highways maintenance and related schemes.

Gloucester City wildlife sites

Gloucester City Council operates its own system for identifying Sites of Nature Conservation Interest (SNCIs) within the city. The SNCIs are graded from A (best) to D, with only the "A-grade" sites qualifying as Key Wildlife Sites. "Lower" grades are used to recognise less-diverse areas which are nevertheless considered important urban green-spaces. The system utilises a set of selection criteria with the selection thresholds set at a lower level than for KWSs. These criteria could be used by other Local Authorities as a basis to

assess sites within towns and cities – e.g. in conjunction with Green Infrastructure inventories – or could be incorporated into 'urban' criteria within the main KWS selection criteria in the future.

For more information on these designations, including how they are selected, please refer to the relevant Local Authority and voluntary group websites.

Table 1: summary of nature conservation measures in Gloucestershire

Greater priority ← Scale of priority for protection → Lesser priority				
Ramsar Sites Special Areas of Conservation Special Protection Areas (NB. These are usually for one group of species, such as Birds or Plants).	National Nature Reserves (NNRs) Sites of Special Scientific Interest (SSSIs)	**Key Wildlife Sites** Local Nature Reserves (LNRs) Gloucester City Sites of Nature Conservation Interest (NB. These may not always fit the criteria for KWS) Conservation Road Verges	Non-KWS habitats in rural land – may be covered by Environmental Stewardship Scheme beneficial options Parks and gardens – a number of local authorities and conservation charities focus efforts on encouraging wildlife in parks and gardens.	Improved farmland & Marginal urban habitats are less likely to have direct conservation management, but may benefit from Environmental Stewardship options , green infrastructure management plans and general species protection legislation.

Common frog, *Rana temporaria*, at home on any site, whether protected or not...

1.5 Other considerations for KWS selection

Marine species and habitats

KWS designation may extend to land covered temporarily or permanently by water. In practice, KWS boundaries will extend as far as the astronomical low tide line but not beyond, incorporating intertidal habitats but not open sea. The reason for this is that habitats such as saltmarsh and intertidal mud feature in the list of UK Priority Habitats, and, whilst not always manageable for conservation, may form part of coastal KWS. Deeper water is likely to be covered by Marine Nature Reserve legislation, and is in any case beyond the scope of the Wildlife Sites Partnership to either monitor or manage.

Note: if no map is available of Lowest Astronomical Tide, the nearest chart datum will be used as a guide, e.g. Mean Low Water as indicated on Ordnance Survey maps.

Geological and physiographical sites

Local Sites may be selected on the grounds of geological and/or geomorphological importance, in which case separate criteria – maintained by the Gloucestershire Geology Trust – will be used. In many cases overlap with biological sites is likely. KWS citations will make clear **all** the main reasons for designation, so that site conservation management can be prioritised accordingly.

1.6 Legislation and Policy

A range of national legislation and policy guidance is of relevance to Local Wildlife Sites systems:

Natural Environment and Rural Communities Act

In **Biodiversity Action Plans**, local biodiversity partnerships have identified locally important species and habitats, along with actions needed to maintain and enhance them, taking account of priorities identified in the UK Biodiversity Action Plan.

Statutory duties which apply to all public authorities

The UK as a whole is bound by Article 10 of the **EU Habitats Directive 1992, which states**: *"Member states shall endeavour, where they consider it necessary, in their land use planning and development policies, and, in particular, with a view to improving the ecological coherence of the Natura 2000 network, to encourage the management of features of the landscape which are of major importance for wild flora and fauna."*

This has been transposed into UK law in regulation 38 of the **Conservation of Habitats and Species Regulations 2010**:

Nature conservation policy in planning contexts

39.—(1) For the purposes of—

(a) subsection (3) of section 17(1) (local development documents) of the Planning and Compulsory Purchase Act 2004(2),

(b) subsection (2)(b) of section 62 (local development plan) of that Act, and

(c) subsection (2)(b) of section 70 (regional strategy) of the Local Democracy, Economic Development and Construction Act 2009(3),

policies relating to the development and use of land are to be taken to include policies encouraging the management of features of the landscape which are of major importance for wild fauna and flora.

(2) For the purposes of—

(a) subsection (3A) of section 12(4) (preparation of unitary development plan) of the TCPA 1990;

(b) subsection (3) of section 31(5) (structure plans: continuity, form and content) of that Act; and

(c) subsection (3) of section 36(6) (local plans) of that Act,

policies in respect of the conservation of the natural beauty and amenity of the land are to be taken to include policies encouraging the management of features of the landscape which are of major importance for wild fauna and flora.

(3) The features of the landscape referred to in paragraphs (1) and (2) are those which, by virtue of their linear and continuous structure (such as rivers with their banks or the traditional systems of marking field boundaries) or their function as "stepping stones" (such as ponds or small woods), are essential for the migration, dispersal and genetic exchange of wild species.

(4) Where the Secretary of State considers it necessary, the Secretary of State must include in a national policy statement under Part 2 (national policy statements) of the Planning Act 2008(7) policy that encourages the management of such features of the landscape (as mentioned in paragraph (3)) which are of major importance for wild fauna and flora.

Such planning policies should be included in land use plans or spatial strategies. Local sites systems contribute to fulfilling this requirement and can play a very important part in maintaining the links that join up and support the nationally and internationally recognised sites.

The **Natural Environment and Rural Communities Act 2006** ("NERC Act") introduced a new duty for public authorities. Section 40 states: '*Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of these functions, to the purpose of conserving biodiversity*'. The role Local Authorities have in land use planning and managing their own land is clearly relevant to the LWS system. The **Biodiversity Strategy for England** is the principal means by which Government in England will discharge the section 40 duties referred to above, and this includes the promotion of a more consistent approach to the operation of Local Sites systems, (*Working with the Grain of Nature*, Defra 2002).

The NERC Act also applies to national decision-making: in complying with the biodiversity duty, a minister or government department must take account of the Convention on Biological Diversity of 1992. Under Section 41 of the NERC Act, the Secretary of State must publish a list of species and habitats of principal importance for conserving biodiversity in England and keep it under review. This list varies between England, Scotland and Wales, although it relates closely to the UK Biodiversity Action Plan in each case. Clearly, any criteria for the selection of Local Wildlife Sites must take these species and habitats into account.

Development control

The most directly-relevant guidance is **Planning Policy Statement 9: Biodiversity and Geological Conservation** (PPS9). PPS9 provides a statement of national

planning policy for biodiversity and geological conservation in England. It recognises that Local Sites (both for wildlife and geological interest) have a fundamental role to play in helping to meet overall national targets, contributing to the quality of life and the well-being of the community and in supporting research and education. PPS 9 also specifies that Local Development Frameworks should indicate the location of important nature conservation areas including Local Wildlife Sites.

Planning Policy Guidance Note 17 (PPG17): ***Planning for Open Space, Sport and Recreation*** is relevant to the wider context of Local Wildlife Sites, in particular their social and amenity value. PPG17 recognises that open space of high quality or of particular value to a local community should be identified and given protection by local authorities through appropriate policies in plans. New research into the importance of Green Infrastructure draws on this existing planning guidance, linking it more to the provisions of PPS9 and the duty (under the NERC Act – see above) of public bodies to take biodiversity into account.

It should be noted that planning policy guidance is frequently updated, and any related provision for local sites can change.

Cleared plantation in the Forest of Dean, with abundant foxgloves and other native woodland species. A high proportion of Key Wildlife Sites owe their biodiversity to agricultural and forestry practices over time

Legislation specific to agriculture and forestry

Other relevant legislation which may have a bearing on the protection of Key Wildlife Sites includes the **Environmental Impact Assessment Regulations (Agriculture) 2006,** which provides a measure of protection against changes in land management. For those landowners in the Single Payment Scheme, cross-compliance and the codes relating to maintaining land in Good Agricultural and Environmental Condition require that semi-natural habitats be protected. The presence of existing KWS designation can simplify and speed up this process, especially if taken into account during the formulation of Farm Environment Plans. KWS work can also help where intensification of land use requires Environmental Impact Assessment under the 2006 regulations.

The Forestry Commission is responsible for administering the **Environmental Impact Assessment (Forestry) (England and Wales) Regulations 1999**. These regulations affect four kinds of "forestry" project. These are:

- **Afforestation**: Planting new woods and forests, includes direct seeding or natural regeneration, planting Christmas trees or short rotation coppice;
- **Deforestation**: Felling woodland to use the land for a different purpose;
- **Forest roads**: The formation, alteration or maintenance of private ways on land used (or to be used) for forestry purposes. This includes roads within a forest or leading to one; and
- **Forestry quarries**: Quarrying to obtain materials required for forest road works on land that is used or will be used for forestry purposes or on land held or occupied with that land.

If work is planned that could be classed within these four forestry projects the Forestry Commission should be contacted for further information and advice. If the Commission's opinion is that the proposed project will have a significant impact on the environment, consent for the work needs to be sought.

1.7 Protecting Key Wildlife Sites

There is currently no absolute statutory protection for Local Sites against changes in land use that do not require planning permission, and sites are not

protected from damage through neglect. All Local Wildlife and Geological Sites therefore rely on the goodwill and interest of owners and managers if their wildlife is to thrive. There is, however, a degree of protection during the planning process which can protect KWS from avoidable harm. There is also the benefit of potentially increased management grants (e.g. under Higher Level Stewardship Schemes) which can provide incentives for good management.

Advice given in Planning Policy Statement 9: Biodiversity and Geological Conservation highlighted the need to take nature conservation objectives into account in all planning activities which affect rural land use. It states that these objectives should be reflected in regional, structure and local plans. Such measures have been strengthened by the provisions of the Natural Environment and Rural Communities Act 2006, requiring all public bodies to have regard for the conservation of biodiversity, and by the other legislation listed in section 1.6, above.

Six-spot burnet moths, *Zygaena filipendulae*, found in great numbers on a grassland KWS next to a public footpath in Gloucester

1.8 The history of Gloucestershire's Key Wildlife Sites

During 1976-1977 the Gloucestershire Wildlife Trust conducted a habitat survey of the county. As part of this work, approximately 300 sites were surveyed which were identified as being of ecological significance within Gloucestershire. These sites formed the first, core Key Wildlife Sites. Following the publication of Version 2 of the Royal Society for Nature Conservation (now

the Royal Society for Wildlife Trusts) Wildlife Sites Handbook in 1977, further work was carried out on the Key Wildlife Sites system. The 1977 Wildlife Sites Handbook described Wildlife Sites as having "substantive nature conservation value". According to the recommendations of the Handbook, Wildlife Sites must reach the specified thresholds for the county or equivalent area for which they are written... however, the Handbook was not specific in its recommendations, and was published before the UK Biodiversity Action Plan. The first clear criteria for selection of KWS were published after this, in 1994; a revision was carried out, taking local BAP priorities into account, around 2001.

This document represents the latest revision, and takes into account the many recent developments in both Local Sites systems and BAP priorities.

Many new sites have been added since the first 300 KWS were identified, and there are now over 700 sites, and a similar number of "unconfirmed" sites awaiting assessment, many of which are likely to be added to the list of KWS in the future. New Key Wildlife Sites were at first chosen by a small committee of the Gloucestershire Wildlife Trust. Although the Criteria were revised at various intervals, no formal group of partners was set up to oversee the Key Wildlife Sites system until January 2010.

1.9 The Gloucestershire Wildlife Sites Partnership

Defra Local Sites guidance identifies the need for a partnership approach to be taken to ensure that all relevant organisations and bodies are involved in a Wildlife Sites Partnership. The Gloucestershire Wildlife Sites Partnership sits under the umbrella of the Gloucestershire Biodiversity Partnership, which already includes all potential members of the Wildlife Sites Partnership and others. The current KWS system therefore follows DEFRA recommendations as laid out in the 2006 document *Local Sites: Guidance on their Identification, Selection and Management*, which states:

"The establishment and management of a Local Sites system, whilst needing a clear focus of responsibility, should be based on a partnership approach..." and

"Local Sites partnerships should build or draw upon [such] established partnerships where they exist".

Membership of the Partnership will vary according to the makeup of the Biodiversity Partnership; consideration will also be given to any other organisations who express a valid interest.

The role of the Partnership

- Promote and develop the KWS system as a mechanism for maintaining and enhancing the wildlife resource in Gloucestershire including the recording and monitoring of Biodiversity Action Plan (BAP) priorities
- Raise awareness of KWSs (e.g. general public, landowners, decision makers) and the need for appropriate management and/or measures to improve habitat connectivity
- Promote the role and importance of KWSs at a strategic level – for example, in delivering BAP targets, fulfilling NERC Act responsibilities and other legislative commitments, reporting on National Indicator 197, adapting to climate change, delivering green infrastructure, supporting sustainable development, informing land use and management, and the targeting of agri-environment/forestry schemes
- Ensure the protection of KWSs through policies and their identification within Local Development Frameworks
- Promote and support the provision of advice to KWS owners to ensure the appropriate management of the KWS so that they are in a favourable condition
- Promote access to and educational use of KWSs where appropriate and supported by landowners
- Identify and promote funding opportunities for KWS work and management
- Review the operation of the KWS system at suitable intervals to ensure that in principle it follows national guidelines whilst accounting for local experience and circumstances

1.10 Site selection panel

From the Wildlife Sites Partnership, a small selection panel will be appointed with the task of applying the selection criteria and deciding whether a proposed site should be made a KWS.

The role of the Site Selection Panel

- Co-ordinate the selection and identification of candidate sites
- Agree and approve new sites for selection, and deletion of sites that no longer meet the selection criteria
- Recommend requirements for survey, re-survey and condition-monitoring of KWS

The operation of the Site Selection Panel is heavily dependent on the carrying out of regular KWS surveys, both of potential new sites and existing KWS. Once a site is known about, it can be assessed, the criteria applied, selected if appropriate, earmarked for re-survey in the future, and added to the register of known KWS. The point at which the Selection Panel is satisfied that the site should be KWS is also the point at which the ratification process begins, and notification of landowners.

The completed process ideally results in an updated KWS register and a dialogue with the landowner and other relevant parties with a view to optimising the management of the site for the benefit of its biodiversity. Details of the various stages of KWS survey, selection, ratification and notification are outlined below.

1.11 The Survey Process

Permission for access to survey an existing or potential KWS will be sought through writing or telephoning the landowner where ownership can be determined; otherwise approaches will be made on the day of the proposed survey, or earlier if convenient.

When requesting access, the landowner will be provided with a clear and unambiguous explanation of the purpose of the survey. The landowner should be fully informed of who is to undertake the survey, when it will be undertaken, on whose behalf, and why. It is important that the landowner feels involved and informed throughout.

If no permission is forthcoming, either through inability to contact the landowner or through refusal, then surveyors will not trespass on land in order to acquire data. If access permission is refused, then the landowner's wishes will be respected. Where permission for access is unobtainable for an existing KWS, the site will remain a KWS on the basis of previous data.

Surveyors should carry identification when conducting surveys, and ensure that the landowner is aware of their presence. Once a survey has been completed, the landowner will be informed of the findings and offered management advice if appropriate.

Survey types

Habitats

Habitat survey for KWSs is based upon an extensive survey with site and habitat descriptions, a habitat map and species list. Surveyors will record details of structures and features on the site, current, and ideal management, potential threats, and any contact made with the landowner or manager during the survey. Full National Vegetation Classification survey information may also be collected and used on occasions.

Wild Meadow clary Salvia pratensis*, a plant with specific habitat requirements*

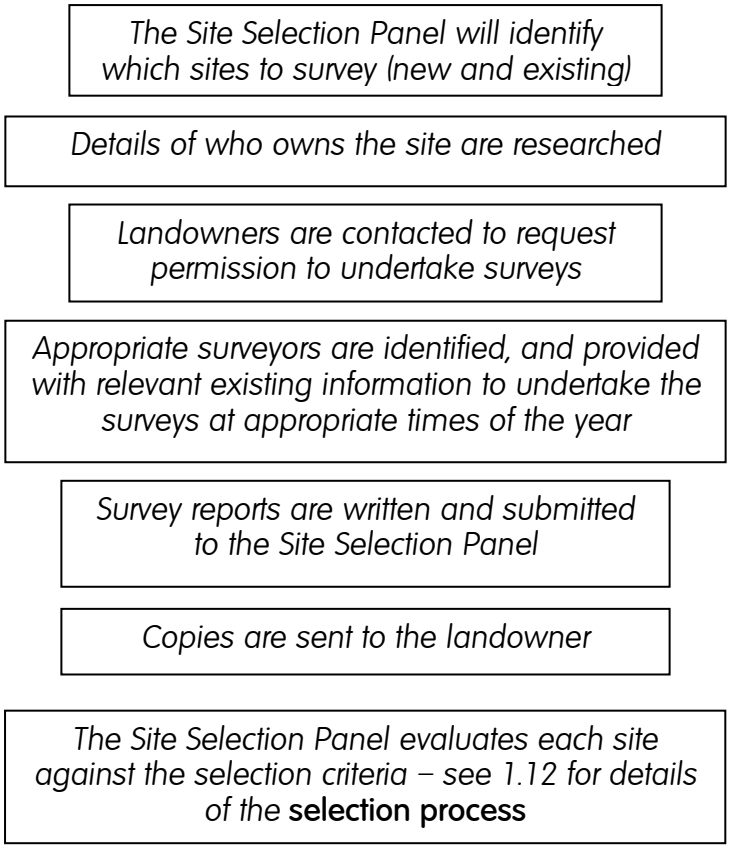
Species

Where a KWS is designated or likely to be designated because of the presence of a particular species or species assemblage then survey effort will focus on this feature. The habitat survey methodology described above may be used in conjunction with this targeted survey work. However, in order to establish the likely population of the species of interest a specific species survey will often be required. In some instances specialist surveyors will need to be involved.

Ideally a complete list of up-to-date existing information present on any given site would be available. However, it takes time and resources to accumulate and maintain species information at a useful level, and such work is ongoing. The main source of information on species is the Gloucestershire Centre for

Environmental Records (GCER), which collates records from the Gloucestershire Naturalists' Society, other county recorders and amateur naturalists, strategic surveys carried out by organisations such as the Environment Agency, surveys undertaken to support planning applications or the Local Development Framework process, and other sources, such as species information arising as a result of projects related to Biodiversity Action Plan initiatives.

Stages in the survey process



A number of existing and new sites may be surveyed each year depending on the resources available. As a result of survey some KWS may be added, some may be deleted and others may have their boundaries amended.

Resurvey of existing sites

Existing KWSs may be resurveyed for a number of reasons:

- To provide up to date information or to provide confirmation of previous records
- As part of a strategic monitoring or resurvey programme, particularly in relation to sites identified for a species interest

- To provide further information required by the Local Authority to inform forward planning and development control casework
- To provide extra information which may be available at a different time of year from the time of the original survey. This might be for a variety of reasons such as in connection with a planning application or for deciding on appropriate and sensitive site management
- To survey particular species groups not covered during previous surveys

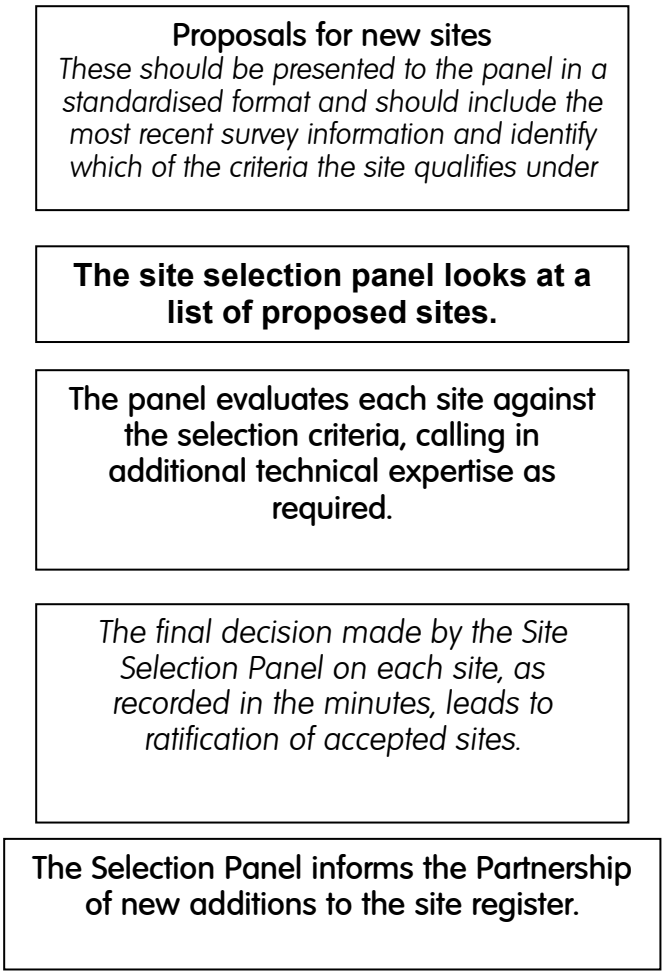
Survey reports should include:

- who conducted the survey and/or collected the data used in the assessment, and the date of when it was collected
- as many species taxa as possible, and be clear about data that is not available and any limitations of the survey
- detailed species abundance data wherever possible, to enable changes to be detected in future
- a clear map showing habitats occurring on site
- the reasons for any proposed boundary change, and a map of an appropriate scale that clearly identifies the boundaries of the KWS
- an assessment and justification detailing if the site either qualifies or continues to qualify as a KWS
- recommendations for site management to either bring it up to KWS standard, into favourable condition, or to maintain and enhance the qualifying features of the KWS
- if the site has been significantly damaged or destroyed the report should also outline what has happened and identify opportunities for recovery of the site

1.12 The selection process

Sites will be selected based on up to date survey information. Although the Site Selection Panel will approve new sites for selection, anyone can contact the group and ask for a site to be considered as a KWS. A professional approach is taken to the consideration of new KWSs and the site selection panel will ensure that it has the technical knowledge to make informed decisions on the selection of sites. The panel will invite recognised county experts to comment on new proposals where it does not have adequate technical expertise. This is most likely to occur in relation to sites selected for their species interest.

Stages in the selection process



If the site meets the thresholds within the selection criteria it is put forward for selection as a proposed KWS. The justification for its selection is noted. If a site does not qualify the reasons for this are also noted. Amendments to the boundaries of existing KWS can also be considered.

It should be noted that inevitably there will be sites of KWS quality that have been missed to date. Some may have been overlooked or undervalued in previous survey projects and deserve consideration as new KWSs. Positive management subsequent to previous survey may also have brought the site up to the thresholds contained within the selection guidelines. Therefore it should be recognised that as the criteria are updated and reviewed, sites which have not met the thresholds in the past may now do so. Therefore any site which is

not approved should be recorded for possible review at a future date. Important examples of sites that may qualify for KWS selection in the future include:

- Borderline KWSs
- Sites where access for survey was refused, but where ownership may have recently changed
- Sites with inadequate survey information
- Sites recommended by others and still on the "unconfirmed" list
- De-notified SSSIs
- Former mineral workings and waste sites
- Habitat creation and enhancement areas (e.g. landscape scale environmental projects)
- New and mitigation areas associated with development

Revised or new survey data may in some instances bring to light additional areas which meet the selection criteria and which would effectively enlarge an existing KWS, similarly a review of existing sites may identify an area identified as part of a KWS which does not meet the criteria, perhaps as a result of inaccurate mapping. In these instances the boundaries of existing sites can be modified through the site selection panel assessment process, and the new boundaries ratified and notified to the Partnership.

De-selection of KWS

A site, or part thereof will remain a KWS until data is collected that proves otherwise. The general principle is to avoid the de-selection of sites. The panel can de-select a site if the nature conservation interest deteriorates to such an extent that it no longer qualifies **and** it is not feasible to restore through appropriate management or non-intervention. A site cannot be removed from the register for political reasons. If a site has to be removed as a result of wilful and deliberate destruction or neglect, it will no longer attract associated management funding. The potential for restoring the site's features of interest will be an important factor in the decision. Sites will be considered on a case-by-case basis and any site being considered for de-selection would be subject to a survey and evaluated against the selection criteria. See **1.16** for more details of the monitoring and revision process.

1.13 Ratification

Ratification is the formal procedure for the selection of a new KWS, amendments to an existing KWS or the potential deletion of a KWS. It is required to prevent sites being included or excluded from the KWS register without the knowledge and agreement of the Partnership or landowner. This helps ensure accountability and demonstrates integrity.

Table 2: The ratification process

Landowner consultation	Once the Site Selection Panel has made a decision on a site the landowner will be given an opportunity to make any observations. This process includes new sites, any amendments to existing sites and sites being considered for removal from the register. A standard letter will be sent inviting them to submit their observations within a specified timescale. It should be made clear that although landowner observations will be taken account of and recorded, they may not necessarily affect the outcome. If relevant, landowners should be informed of the outcome of any survey work with a thank you for allowing the survey to be carried out. It should include a copy of the survey outlining the habitat and species interest of the site and a map. The landowner must be informed of any protected species recorded in the survey and the implications of this in any proposed management works. Information on the KWS system should also be sent along with details of management and grant advice available from various organisations.
Informing the Partnership	At the same time as landowners are consulted the Wildlife Sites Partnership will also be provided with information on which sites are being considered and why and will be invited to submit any observations within a specified timescale. As the Partnership is unlikely to meet frequently, this is likely to be carried out electronically whenever possible.

Site Selection Panel discussions	After the consultation period ends the Selection Panel will review any submissions received. The panel will consider each site and discuss whether a site should • Be accepted as a new KWS • Be rejected as a KWS • Remain a KWS with its existing boundaries or with an amended boundary • Be removed from the KWS register If a decision is not reached there may be a recommendation for further survey work. At least 3 members of the panel must be present to make a decision. Rejected sites could be re-considered at a later date if they subsequently meet the KWS selection criteria, for example following positive management.
Formal ratification	Formal ratification is the final decision made by the Site Selection Panel on each site, as recorded through an online group or knowledge hub.

As soon as the panel's decision is made, the site should be added to the register and becomes a KWS. It is acknowledged that effective protection of the site however may only occur when the site has found its way onto alert maps, the KWS register and the landowner receives confirmation about the site's status. It is essential therefore that information is given to those who need to know in reasonable timescales and that those who receive it know the importance of keeping their records up to date.

Notifying landowners

Ensuring that KWS owners and managers are informed of the wildlife value of their land and the significance of the KWS status is an ongoing, but important aspect of the process. The objective is to provide information and an offer of further liaison, advice and assistance if requested. Relationship building with owners and managers helps to safeguard and improve the wildlife resource.

Objections to Key Wildlife Sites

The primary concerns raised by landowners about KWSs include pre-conceived ideas about constraints on agricultural practice, fear of public access implications and the potential restrictions imposed by a KWS on possible future built developments.

With respect to planning, local authority commitments to biodiversity mean that consideration of planning applications takes into account the biodiversity value of a site whether it is a KWS or not. Presence of a KWS highlights potential biodiversity issues at an earlier stage allowing more time to seek acceptable alternatives or solutions. Where a KWS is not present it may still be of KWS quality but just has not been identified as such and been selected.

Surveyors and advisers should point out to site owners that sympathetic management of KWSs for wildlife is voluntary and is encouraged. The recognition of a KWS may help landowners apply for funding through agri-environment or forestry schemes. Finally, building rapport with a KWS owner and providing information and support to them should help to reduce the number of objections being received on a KWS designation.

The KWS register

The KWS register comprises a list of sites of Local Wildlife Site status accompanied by a digital mapping layer which locates them. The current list of KWSs is prepared and maintained by the Gloucestershire Centre for Environmental Records (GCER) in conjunction with the Site Selection Panel. After ratification of sites the KWS register will be updated to show which sites have been added, deleted or had their boundaries amended. Update summaries will be distributed at least annually to the partnership members.

1.14 Developing links with KWS owners and managers

It is important that throughout the operation of the KWS system, landowners are aware of the presence and significance of their site for wildlife, its value in a wider county context and the role of the KWS system as a tool for achieving nature conservation objectives. Wherever possible landowners will be offered support and encouragement to maintain and enhance their wildlife habitat.

To these ends, consistent and regular contact with landowners, at all appropriate stages is essential. From the outset, KWS owners should be provided with both information on how the KWS system works and its implications, and survey information for their site(s). This approach provides a baseline from which to encourage site management and further involvement in nature conservation. A county the size of Gloucestershire may have over 1000 different owners and occupiers of Local Sites, so a substantial proportion of KWS staff time will be concerned with developing links.

An information sheet on the KWS system and its implications with details about survey or resurvey will be sent to landowners. This will emphasise the following key points:

- That the majority of ordinary land management and agricultural operations remain unaffected
- That identification of a KWS does not give anyone other than the landowner or manager control over land management
- That there is a need for positive management for the KWS to retain its wildlife interest
- That "postitive management" is often a case of continuing the existing management, which has allowed the wildlife interest of the site to develop over time
- That the presence of a KWS does not mean that there will be open public access across their land or within the KWS
- That existing public rights of way remain unaffected and that no rights of access are created through the selection process, but that this does not preclude negotiation of access through any agri-environment scheme or other initiatives

Ideally a regular newsletter for KWS owners will be produced and sent out at least annually.

Advice to KWS owners

It is essential that organisations advising on KWSs work together closely to ensure that expertise is used to its full potential for the benefit of KWSs and their wildlife. It is also important to avoid duplication of effort on sites that

have been, or are being, worked on by others, especially where the advice leads to securing a management grant. Much of the communication needed for this work is delivered through the Site Selection Panel and the wider Partnership and by maintaining a high level of contact with other conservation organisations.

Advice can include identification of appropriate grants, assisting with application forms or help with writing management plans. Funding is often the key to encouraging positive management for nature conservation on a KWS, as management sympathetic to wildlife is characteristically less intensive and often less economically productive than the current 'norm'. Advice on appropriate grants is therefore an important part of the KWS system.

1.15 Publicity and raising awareness

Awareness of KWSs plays an important part in the overall success of the KWS system. A core feature is to encourage a sense of 'ownership' of, and pride in, the nature conservation value of KWSs. In providing information and general advice on KWSs, the value of individual sites, and the incentives available for their management, enthusiasm for wildlife is encouraged among landowners which not only helps protect KWSs against development, but also ensures appropriate long-term management and enhancement. A professional and diplomatic approach is essential in this very sensitive area of work.

Organisations involved in work on Local Sites need to be aware of the KWS system and what it is trying to achieve to help further understanding of it. Communication between members of the KWS partnership will have benefits for all concerned and most importantly maximise the success of KWSs in meeting biodiversity objectives.

Moonwort ,*Botrychium lunaria*, next to a £1 coin. Plants of interest such as this tiny fern-relative may not be obvious to landowners unless pointed out

The exchange of information, expertise and local knowledge is invaluable in furthering work on specific sites and developing work in the wider countryside.

It is also important that the general public are made aware of the KWS system in order to increase awareness of the need to conserve and enhance biodiversity in the wider countryside (as opposed to a perception that conservation is solely nature reserve based). Raising awareness also encourages local communities to take action on land in their control and to become more involved in practical nature conservation work such as surveying and site management.

However, the availability of detailed information on KWSs to a wide audience may, unintentionally imply unrestricted access to KWSs, which is a major fear of many landowners. Such publicity may jeopardise relations with landowners and therefore undermine the success of the whole system. Therefore promotion of access for informal recreation and education will be restricted to those KWS that are owned by a Local Authority or voluntary organisations and where public access is appropriate without being detrimental to the nature conservation value of the KWS.

To help raise awareness publications associated with the KWS system such as the selection guidelines, KWS information sheets and newsletters, will be made available in a number of formats and where possible available to download from the internet.

Mistletoe *Viscum album*, in flower on a veteran orchard tree in the Forest of Dean

1.16 Monitoring and revisions

Monitoring

Sites can change, both as a result of traumatic damage and from natural ecological progression. Full information upon which to base site selection decisions is not always available - and conservation priorities can change in the context of wider ecological change. It is therefore important to continuously gather information, monitor sites and review the KWS network. This is an integral part of the site evaluation and selection procedure, as is the updating of KWS details as appropriate.

Monitoring is also important as a management tool. A basic principle of conservation management is that the scientific interest of an area is often the result of the sympathetic management practices employed by the past and present land managers, and that this interest is often dependent upon the management practices continuing. The success of the KWS system therefore depends on the co-operation of the owners and occupiers and continuing appropriate land management practices. As land managers they need to know what makes their land important. Therefore citations for sites must be concise, clear and comprehensive statements of the scientific interest of the site. However, because of the complexity of the ecological system described, the citation cannot describe the area in its entirety, nor provide the justification for every single feature or species which is present. It is these which may develop into more dominant biodiversity features if the site develops in the future, hence the need to update citations periodically.

In view of the above, a rolling program of KWS monitoring will be carried out at an ideal minimum of one site visit every five years. KWS citations will be updated where monitoring shows their biodiversity interest to have changed.

It is recognised that in practice, lack of resources will result in many sites remaining unmonitored for much longer than desirable. When proposals are made which would affect such a site, a visit to check on its designated KWS features should be made as a matter of urgency.

Revision of site status

Ecological systems are in a state of flux, and species' arrival and disappearance is often outside the control of land managers. New sites may develop biodiversity over time. Others may lose it due to natural processes or unavoidable development either on the site itself or nearby (e.g. in the case of drainage works). In addition, some sites may even be designated on the understanding that all or part of them will have a relatively short-lived interest for which the presence of an ephemeral habitat is very important – even though the interest of that KWS may not last more than a few years. Hence, occasional alteration of site boundaries, or removal of sites which no longer meet the criteria, are inevitable. However, very careful consideration will be given to the removal of KWS status from a site or part of it.

Whilst relatively up-to-date information is needed in order to assess a new Key Wildlife Site for designation, it is important to note that some species are sporadic in appearance, or have long periods of life-cycle where they are not easy to confirm as present. In extreme cases re-finding a species at a known location can take years of visits from experts. A KWS will NOT, therefore, be de-registered just because a species listed in the original reason for designation hasn't been found for a while. This can apply to many species groups, notably insects with long or sporadic life-cycles, fungi which only fruit under ideal conditions and plants which remain underground for years until flowering.

Where it is certain that a KWS has lost some or all of its original interest, strong efforts will be made to restore the site. If immediate restoration or repair of damage is not possible, it may still be possible to maintain the site until appropriate conservation management can be resumed, and then proceed to restore the previous biodiversity interest, as many species are very persistent in soil and will reappear when conditions are suitable.

Where the original reason for site designation has gone and site conditions have undergone a permanent change, for example due to unavoidable changes in underlying hydrology, there is a possibility that new species of interest may have moved in and the habitat progressed to a different type.
In view of the above, there will be a presumption against de-designation, in

favour of remediation and management to regain the wildlife interest for which a site was originally designated. If this proves impossible, removal of the area will only be done after a thorough survey has been carried out to re-find species or other features for which the site was originally designated, and check that there are new features of interest .

As a result of the monitoring and revision process, Key Wildlife Sites may be added to or reduced (i.e. their boundaries may change), or removed from the list altogether. Any party using the KWS list and associated GIS layer should therefore take care to ensure that they have the latest version.

1.17 Choosing criteria for Local Wildlife Sites systems

The multitude of different Local Wildlife Sites systems throughout the UK each have their own tailor-made criteria to fit the area in question. However, they tend to follow a similar pattern of selection criteria, based on well-established principles of nature conservation. This consists of a twofold approach, with specific minimum criteria for each habitat type, and overall criteria, applicable to any site, for comparing nature conservation priorities:

The "Ratcliffe criteria" methodology

Ratcliffe (1977)[2] was the first to publish criteria by which sites should be selected. As Ratcliffe explained, these are criteria which have *"by general agreement and established practice, become accepted as a means of judging the nature conservation value of a defined area of land".* NB. The Ratcliffe approach was to become the main rationale for the UK Nature Conservancy Council's[3] "Guidelines for selection of biological SSSIs", as well as the basis for most Local Wildlife Sites criteria.

Some of the Ratcliffe criteria might be termed primary criteria:

- Size (extent)
- Naturalness
- Typicalness
- Rarity
- Fragility

[2] Ratcliffe, D.A. (1977) A Nature Conservation Review, Cambridge University Press

[3] (now Joint Nature Conservation Council or JNCC)

- Diversity (of habitat, structure, plant community and species)
- Position in the ecological/geographical unit

Others are secondary criteria:

- Recorded history
- Potential value (if restored)
- Intrinsic appeal

These criteria are clearly not prescriptive, and whilst widely-applicable and agreed on principle, may result in subjective judgements which are very hard to quantify when comparing sites. More recent publications refer to an updated version of Ratcliffe's list.

RSNC's Wildlife Sites Handbook

Most county Wildlife Site selection criteria are couched in similar terms to the criteria in the 1977 RSNC *Wildlife Sites Handbook*. Whilst the Ratcliffe criteria are recognised, the need for ease of use has condensed the Wildlife Sites criteria into statements. For example "All H1 (NVC *Calluna Vulgaris-Festuca ovina*) grasslands greater than 2.0 ha should be Wildlife Sites". This effectively incorporates an assessment of botanical diversity, typicalness, size and habitat rarity. It is not however without its drawbacks, as the sole use of minimum size thresholds etc. may not take into account the many ways in which a site is of importance, and can result in a large number of sites being selected as a matter of course, without picking out the most important features, or conversely in a too-strict system which leaves out some sites which have exceptional features on a small scale.

DEFRA Local Sites guidance

In 2006 the Department for Environment, Food and Rural Affairs (DEFRA) published *Local Sites: Guidance on their Identification, Selection and Management*. This publication aimed *"to promote a transparent and consistent approach to the operation of Local Sites systems, drawing together best practice while accommodating the strengths of existing systems."* Under "Key Principles and Priorities of the Site Selection Process", DEFRA includes the following points:

38. The nature conservation interest of a site may be inclusive of a range of benefits that the natural features and processes within a Local Site might provide. These include the conservation of biological or geological diversity; the opportunity for contact with and enjoyment of nature; a resource for learning about the natural world or for research into natural features and processes.

And

42. Local Site systems should select all areas of substantive nature conservation value. Developing the criteria will hinge on defining what qualifies as 'substantive' in the local context. This is a complex issue affected by many factors including:

- *determining criteria thresholds for the nature conservation benefits to be secured through any particular Local Sites system. This will involve considering the amount and distribution of locally significant species, habitats and geological features to be selected into the system;*
- *distribution, abundance and increasing or declining trends in the nature conservation resources;*
- *maintaining viable populations and functioning ecological communities;*
- *differing abundance and therefore significance of the nature conservation resources, for example between rural areas and urban areas;*
- *general paucity of natural interest in the area; and,*
- *the importance of certain features at the edge of their range.*

Although the overall approach outlined by DEFRA is broader than the Ratcliffe Criteria alone, the guidance still recommends them as a basis for selection criteria as follows:

- Size or Extent
- Diversity
- Naturalness
- Rare or Exceptional feature
- Fragility
- Typicalness
- Recorded history and cultural associations
- Connectivity within the landscape
- Value for appreciation of nature
- Value for learning

It is these criteria (with Naturalness and Typicalness combined as one consideration) which have been used in Part 2 of this document as the basis for selecting Gloucestershire's Key Wildlife Sites. The last three points on the list are a development of the Ratcliffe criteria, and are given equal weight rather than being put into a second, lesser category of importance. "Position in ecological/geographical unit" is not included, but is more or less replaced by the concept of landscape connectivity. The rather obscure "intrinsic appeal" criterion is replaced by value for learning and appreciation of nature.

1.18 Gloucestershire's Key Wildlife Sites Criteria

Unlike the SSSI selection process, **all** of the sites that fit the KWS criteria should be chosen, so it is vital that the criteria reflect the county's biodiversity needs without either leaving out important sites or flooding the KWS system with thousands of sites which defy prioritisation. In order to achieve the goal of a balanced and useful Local Sites system, the Gloucestershire Wildlife Sites Partnership uses minimum habitat and species thresholds that fit the unique biodiversity of the county into a wider context, and a set of general criteria based on the DEFRA-recommended version of the Ratcliffe criteria. These are listed as a checklist in **Part 2**, along with details of how to apply them and an example site assessment sheet.

The Ratcliffe criteria as recommended by DEFRA are broadly relevant to all site selection, whether for habitat or species interest, at local or national level. They are widely used. Unfortunately these criteria can be very subjective in application and rather hard to quantify. In view of this, principles for applying each of the criteria have been agreed by the wider Gloucestershire Biodiversity Partnership, and should be referred to where there is doubt about the selection, or boundary choice, of a particular site. These principles are listed alongside the relevant criteria in the checklist in Part 2. The checklist should be used in conjunction with the specific minimum criteria for the habitats or species in question.

The Key Wildlife Site Criteria will need to be tested and periodically updated, to ensure that they are sufficiently rigorous to provide adequate selection of Key

Wildlife Sites for all suitable sites. Revisions to the Key Wildlife Sites Handbook will be agreed by the Gloucestershire Wildlife Sites Partnership on a 5-yearly basis. Updates to the minimum habitat or species thresholds will be carried out as required (e.g. following a change to the UK Priority Species or Habitats list)