

Guidelines for the selection of Local Wildlife Sites

(previously known as Sites of Importance for Nature Conservation or SINCs)

in Leicester, Leicestershire and Rutland



Revised 2011



LEICESTERSHIRE AND RUTLAND



Preface to 4th edition

This edition has continued to refine the descriptions of some of the criteria and develop the link with the habitats described in the revised versions of the Biodiversity Action Plan for Leicester, Leicestershire and Rutland.

The Guidelines follow the lead of the *Planning Policy Statement 9: Biodiversity and Geological Conservation*, published in 2005, and of *Local Sites: Guidance on their Identification, Selection and Management*, published in 2006 by DEFRA. Both documents refer to 'Local Sites' instead of SINC's. The Panel has adopted the term Local Wildlife Site (LWS) as a more precise and locally usable version of the same.

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Introduction

This document outlines criteria and procedures for selecting Local Wildlife Sites (LWS) which are recognised within national guidance and the local and regional planning process. They are especially important in the new Local Development Frameworks, the Regional Spatial Strategy and for the operation of Planning Policy Statement 9, relating to the protection and enhancement of biodiversity through the planning process.

Local Wildlife Sites, and the previous SINC system, replace the three-tier system of County-, District- and Parish level sites introduced in 1979 in Leicestershire and Rutland, although that remains of historic value.

The document has been updated by the current panel consisting of the following ecologists and nature conservation officers:

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Françoise Sciré	Charnwood Borough Council
Neill Talbot	Leicestershire and Rutland Wildlife Trust
Katie Field	Leicestershire and Rutland Wildlife Trust
Helen Gregory	Oadby and Wigston Borough Council
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Kirsty Gamble	Leicestershire County Council
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In addition, Andy Lear of LRWT and Michael Jeeves, the BSBI Recorder for Vice-County 55, assisted with the review of the criteria.

1. What is a Local Wildlife Site (LWS)?

Local Wildlife Sites are the most important places for wildlife in Leicester, Leicestershire and Rutland together with legally protected land such as Sites of Special Scientific Interest (SSSIs). The previous term of SINC is no longer used, to fit in with the latest national guidance such as PPS9, DEFRA's guidance on Local Sites, and the Regional Spatial Strategy and Regional Biodiversity Strategy. A more formal definition is:

Local Wildlife Sites (LWS) are important reservoirs of rare, local and declining native species and are the best examples of typical Leicester, Leicestershire and Rutland habitats. LWS may also be areas of ecological interest that provide people with the opportunity to learn about, appreciate and experience habitats and species of the natural world.

LWS designation is non-statutory – i.e. LWS are not protected by any legislation. In this respect they differ from Sites of Special Scientific Interest (SSSI) which have legal protection through the Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way Act 2000.

The primary purpose of the LWS system is to contribute to the implementation of the Leicester, Leicestershire and Rutland Biodiversity Action Plan, by identifying the most important sites where BAP actions can be focussed, and by disseminating information about

these sites. The criteria for designating LWS are closely linked to the priority habitats listed in the BAP.

Local Nature Reserves (LNR) are designated separately, although their boundaries may coincide with LWS. Regionally Important Geological Sites (RIGS) are not LWS but may be considered to be the geological equivalent. However, many RIGS will be LWS as well. Whereas SSSI are a national series of exemplars, the LWS schedule aims to be as full a list as possible of those sites which meet the following criteria.

2. Why do we need Local Wildlife Sites?

- The LWS system identifies sites of known importance for declining or endangered species and their habitats, and is a way of alerting planners, land managers and landowners and others concerned in land-use to the presence of sites and features of biodiversity importance.
- The LWS criteria identify sites known to contain habitats which are examples of local distinctiveness and deserve to be preserved as part of our natural and cultural heritage.
- The LWS system enables sites which meet LWS criteria to receive a measure of protection in Local Plans and Local Development Frameworks against unsuitable development, even though they may not meet the national criteria for selection as SSSIs which receive statutory protection.
- LWS can be prioritised for action within the Leicester, Leicestershire and Rutland Biodiversity Action Plan.
- The importance of the wider countryside for wildlife is now broadly recognised. LWS can act as a reservoir of vulnerable species which can recolonise areas from which they have disappeared. LWS can also complement or buffer statutory nature conservation sites (SSSIs) and help to identify and protect stepping stone habitats along strategic wildlife corridors, such as rivers. This may be especially important in the context of climate change, where wildlife corridors may provide a means of dispersal for species at a time of environmental change.
- Compared to many other Counties, Leicestershire and Rutland have a relatively low percentage of land – less than 2% - protected by statutory designation (SSSIs or by an international designation). The series of Local Wildlife Sites is therefore very important as a complement to the SSSI series.
- The LWS project aims to focus practical advice and funding on the best areas for wildlife. It strives to support LWS landowners, in order to reduce inappropriate management and neglect, two of the greatest threats to these sites.

3. Principles of LWS selection

- The system should be flexible and responsive to modern demands of the land-use planning system and biodiversity action planning process.
- All sites should have substantive nature conservation value.
- Landowner consultation is an important part of the process. Except in exceptional circumstance site owners will be identified and contacted for permission to survey and monitor sites. When submitting proposals to the Panel without landowner's permission, proposers must append a note explaining the circumstances and outlining the steps taken to try and identify a landowner, with reference to the Panel's Policy on Contact with Owners, Managers and Occupiers of SINCs [now LWS]. Site owners should also have the opportunity prior to formal designation as a LWS to make observations on whether the criteria have been applied correctly, as set out in DEFRA's national guidance on Local Sites.

- Every site should be appraised according to selection criteria which are written down and approved by a committee of nature conservation experts with local knowledge and experience.
- Evaluation and selection procedures need to be readily understood and usable by a wide range of people interested in nature conservation.
- These criteria should cover all features which could make a site valuable for wildlife. Many sites meet the criteria in several areas of consideration, but it is only necessary to meet one criterion to identify a LWS.
- Each criterion should have agreed threshold values. These should be numerical or quantified assessments (low - medium - high, for example) based on professional judgement.
- Thresholds should be set to meet the objectives of the Leicester, Leicestershire and Rutland Biodiversity Action Plan.
- Criteria and thresholds should relate as much as possible to established practice in order to minimise the need for an extensive re-evaluation programme.
- Exceptional sites which are below the minimum size criteria can be approved at the discretion of the Review Panel.

4. Timetable for implementation and Review

The selection of LWS is a continuing process as existing sites are lost and new information is applied to new sites. As the criteria develop they are applied as sites become due for review (normally on a 5 year or 10 year rotation) or as new sites are discovered. Until that time, LWS identified under the 'old' criteria remain recognised and defended according to those criteria. The criteria in this document will be applied to the appropriate sites from the first Panel meeting in 2012.

Criteria for LWS Selection

An individual LWS can be selected if it meets the criteria within at least one of the following five areas of consideration:

1 Habitat quality

- 1.1 The site contains a listed habitat (see habitat criteria) **and**
- 1.2 The site meets the primary criteria for that habitat.

2 Habitat diversity

- 2.1 The site contains two or more listed habitats in close association **and**
- 2.2 The combined area of these habitats amounts to 1ha or over **and**
- 2.3 At least two habitats meet the secondary criteria listed for each habitat.

3 Presence of Red Data Book species

- 3.1 The site supports an established population of a Leicestershire and Rutland Red Data Book or Rare Plant Register species **with the proviso that**
- 3.2 Red Data Book bird populations can only be used to select LWS according to the criteria used for their inclusion in the list (see Red Data Book species criteria for details).

4 Significant species assemblages

- 4.1 The site contains a species assemblage which meets one of the listed species assemblage criteria.

5 Use of site as a wildlife resource by the community

- 5.1 The site meets the secondary criteria for the habitat which it contains **and**
- 5.2 The site is accessible to and widely used by the local community (see community criteria for details) **or**
- 5.3 There is a sense of ownership of the site by the local community (see community criteria for details) **or**
- 5.4 The site is of value for education and raising public awareness (see community criteria for details) **or**
- 5.5 The site is of historical importance for its ecology (see community criteria for details).

Boundaries

The boundaries of LWS are normally set to follow existing traditional boundaries of hedges, banks, ditches or walls. Occasionally, they may be drawn on a 'best estimate' basis where fixed points on the ground or on maps are difficult to identify. The LWS system is essentially an alert to individuals and organisations of the value of an area of ground, especially for use in the planning process. The precise locations of valuable species and habitats may need to be established and marked on the ground when a particular site is under detailed consideration. The advantage of protecting whole, 'traditional', land parcels by LWS designation is that they tend to be managed in those terms, across the whole parcel. Even if some areas within a site are richer in species than others there is an assumption that, given the need for protecting and

enhancing biodiversity (under for example PPS9), it is better to protect the whole land parcel as it provides the opportunity for re-colonisation of the whole site. Linear sites may be usefully sub-divided into lengths between obvious markers, like bridges, inlets, overflows etc.

Habitat Criteria

1 Woodland

LLRBAP: broad-leaved woodland & wet woodland
UKBAP: wet woodland (priority habitat)
 broad-leaved, mixed and yew woodland (broad habitat)

Woodland is an area with almost continuous tree and shrub cover, although grassy rides, ponds and buildings etc. may be present. In Leicestershire and Rutland, woodland is a rare habitat extending over about 4% of the counties. Only 1% is ancient woodland and a substantial proportion of that has been damaged by planting. All ancient woodlands are important because of their rarity and many plants and animals are confined or nearly so to ancient woodlands, including replanted ones. Large semi-natural secondary woodlands are also rare and therefore important.

The Leicester, Leicestershire and Rutland Biodiversity Action Plan identifies wet woodland and broad-leaved woodland as priority habitats for action.

Primary criteria

The wood meets one of the descriptions listed below:

Description	Size threshold
included in Leicestershire Inventory of Ancient Woodland	None
with at least 4 species from Ancient Woodland Indicator List Z1 which are Occasional, Frequent, Abundant or Dominant	≥2ha
naturally regenerated	≥ 5 ha
dominated by willow and/or alder with the water table seasonally near or above the surface	≥ 0.25 ha
contains colonies of <i>Hyacinthoides non-scripta</i> (native bluebells) ≥ 500m ²	≥2ha

Secondary criteria

The site contains blocks of semi-natural woodland totalling one hectare or more in extent. Woodland sites ≥1ha qualify where adjacent to an existing LWS.

Ancient Woodland Indicator List Z1

<i>Anemone nemorosa</i>	wood anemone
<i>Carex pendula</i>	pendulous sedge
<i>Carex strigosa</i>	thin-spiked wood sedge
<i>Chrysosplenium oppositifolium</i>	opposite-leaved golden saxifrage
<i>Galium odoratum</i>	woodruff
<i>Lamiastrum galeobdolon</i>	yellow archangel
<i>Lathraea squamaria</i>	toothwort
<i>Luzula pilosa</i>	hairy wood-rush
<i>Luzula sylvatica</i>	great wood-rush
<i>Lysimachia nemorum</i>	yellow pimpernel

<i>Melica uniflora</i>	wood melick
<i>Milium effusum</i>	wood millet
<i>Oxalis acetosella</i>	wood sorrel
<i>Paris quadrifolia</i>	herb paris
<i>Quercus petraea</i>	sessile oak
<i>Sanicula europaea</i>	sanicle
<i>Sorbus torminalis</i>	wild service-tree
<i>Veronica montana</i>	wood speedwell

2 Scrub

LLRBAP: (no category)

UKBAP: (no category)

Although osier beds ceased to be commercially viable some time ago, many survive as areas of scrub of value for breeding birds and insects. Otherwise, there are very few local areas of outstanding interest as scrub. However, scattered scrub or small areas of scrub often form a valuable component of otherwise open habitats by providing diversity of vegetation structure. Individual bushes can serve as song-posts or nest sites for birds, while small blocks provide sheltered spots of value for flying insects.

Primary criteria

There are no primary criteria for scrub habitat. However, secondary criteria may be used to select sites containing scrub under Habitat Diversity or as a site of social significance under Community Criteria (see page 4).

Secondary criteria

The site contains one of the following features:

Feature	Size threshold
osier bed	≥ 0.25ha
predominantly native scrub species either scattered or closed canopy	≥ 1ha

3 Hedgerows

LLRBAP: hedgerows

UKBAP: ancient and/ or species-rich hedgerows (priority habitat)

Old hedges are of value for the same reasons as ancient woodlands – they support a greater diversity of plants and animals because of their age and long continuity. Old hedges may also be relics of ancient woodlands, and frequently support plants and animals that are typical of these habitats. Old hedges often have associated features such as banks, ditches, trees and deadwood habitats that add to their wildlife value.

Criteria related to structure are difficult to apply because these factors are usually determined by management regimes of cutting or laying. However, the continuous nature of the hedge and its normal height after management will probably remain constant within the review period of a LWS. Marginal hedges in terms of these factors should be reviewed more often.

Hedges are of most value if they are part of a habitat mosaic or associated with other habitats of value, such as mature trees and grasslands. They can be important wildlife corridors if they link habitats together, especially woodlands. Adjacent verges, ditches and field margins should be included within the LWS boundary. Start and end points of hedges can be any obvious fixed feature visible on the ground.

The Hedgerow Regulations 1997 should be referred to for definitions of hedgerows.

Primary criteria

The hedge must be at least 1.3m (4ft) high and continuous (breaks only at gateways or equivalent) **AND** have:

*6 locally native trees or shrubs from list A1 per 30 metres averaged out over length of hedge **OR**

*5 locally native trees or shrubs from list A1 per 30 metres average plus two associated habitat features from list A2.

Secondary criteria

The hedge fails to meet the primary criteria by one species of native tree or shrub.

** for hedges of a length that is not a multiple of 30m, the residue length of the hedge should not be included in the calculation of the average number of spp./30m, but should be included in the LWS.*

LIST A1 – Locally native hedgerow trees and shrubs	
<i>Acer campestre</i> , Field maple	<i>Rosa canina</i> , Dog rose
<i>Alnus glutinosa</i> , Alder	<i>Ribes rubrum</i> , Redcurrant
<i>Betula pendula</i> , Silver birch	<i>Ribes uva-crispum</i> , Gooseberry
<i>Betula pubescens</i> , Downy birch	<i>Salix alba</i> White willow
<i>Cornus sanguinea</i> , Dogwood	<i>Salix aurita</i> Eared willow
<i>Corylus avellana</i> , Hazel	<i>Salix caprea</i> Goat willow
<i>Crataegus laevigata</i> , Midland hawthorn	<i>Salix cinerea</i> Grey willow
<i>Crataegus monogyna</i> , Hawthorn	<i>Salix fragilis</i> Crack willow
<i>Daphne laureola</i> , Spurge laurel	<i>Salix pentandra</i> Bay willow
<i>Euonymus europaeus</i> , Spindle	<i>Salix purpurea</i> Purple willow
<i>Fraxinus excelsior</i> , Ash	<i>Salix triandra</i> , Almond Willow
<i>Fragula alnus</i> , Alder buckthorn	<i>Salix viminalis</i> , Osier
<i>Ilex aquifolium</i> , Holly	<i>Sambucus nigra</i> , Elder
<i>Ligustrum vulgare</i> , Wild privet	<i>Sorbus aucuparia</i> , Rowan
<i>Malus sylvestris</i> , Crab apple	<i>Sorbus torminalis</i> , Wild service
<i>Populus nigra</i> , Black poplar	<i>Tilia cordata</i> , Small-leaved lime
<i>Populus tremula</i> , Aspen	<i>Ulex europaeus</i> , Gorse
<i>Prunus avium</i> , Wild cherry	<i>Ulex gallii</i> , Western gorse
<i>Prunus spinosa</i> , Blackthorn	<i>Ulmus glabra</i> , Wych elm
<i>Quercus petraea</i> , Sessile oak	<i>Ulmus minor</i> , Small-leaved elm
<i>Quercus robur</i> , Pedunculate oak	<i>Ulmus procera</i> , English elm
<i>Rhamnus catharticus</i> , Buckthorn	<i>Viburnum lantana</i> , Wayfaring tree
<i>Rosa arvensis</i> , Field rose	<i>Viburnum opulus</i> , Guelder rose

LIST A2 – Additional habitat features of value
a ditch or stream (dry, damp or wet!) along one or both sides for half length of hedge
a bank supporting the hedge, along one or both sides for half length of hedge
a stone wall supporting the hedge, along one or both sides for half length of hedge
standard trees or pollards at average of two/100m of at least 15cm girth
dead wood/old layers along at least 10% of the hedge
a parallel hedge within 15m

4 Mature trees

LLRBAP: mature trees
UKBAP: (no category)

Mature trees are a priority habitat within the Leicester, Leicestershire & Rutland Biodiversity Action Plan. They are an important habitat resource for hole-nesting birds, roosting bats, fungi, lichens and saproxylic insects. Concentrations of mature trees are particularly valuable.

Primary criteria

Individual trees may be designated as LWS if they have the following physical characteristics:

Species	Girth (in m) at 1.3m above roots	Other features
Native oak species	3.77	dead branches or evidence of heart-rot in the form of visible rot, hollows or bracket fungi
beech	3.77	"
willow	3.77	"
sweet chestnut	3.77	"
lime	3.77	"
<i>Populus</i> sp.	3.77	"
horse chestnut	3.77	"
ash	3	"
elm	3	"

Designated trees may be living, dead or even fallen. Stumps should be at least 2m high.

Multi-stemmed trees with several main trunks (e.g. arising from a coppice stool or a fork lower than 1.3m) may be designated as LWS even if the largest stem does not meet the relevant size criterion for that species. It is impossible to derive robust and universally applicable criteria for measuring these trees, therefore the Panel will approve LWS designation for these on a case-by-case basis. The proposer will be required to provide a photograph of the specimen to inform the Panel's decision.

All mature tree LWS should include an area of a radius 4 times the circumference of the trunk it is centred on (a tree of 1m diameter would have a precautionary area of radius 12.56m).

A site may be designated a LWS if it contains a density of trees of the above species with evidence of heart-rot of 20 trees or more per hectare, or in a 300m linear habitat such as a hedgerow or riverbank.

Secondary criteria

The site contains trees of any species with evidence of heart-rot at a density of 10 or more per hectare.

5 Heathland

LLRBAP: heath-grassland
UKBAP: lowland heathland (priority habitat)
dwarf shrub heath (broad habitat)

Heath grassland is a priority habitat within the Leicester, Leicestershire & Rutland Biodiversity Action Plan and this includes heathland which is here defined as areas of semi-natural vegetation in which dwarf shrubs are prominent. Other types of heath grassland are covered by the criteria for selecting grassland LWS. Because of the degradation of pure heathland in Leicestershire, it is expected that most heathland sites will be selected using habitat diversity criteria rather than pure habitat quality criteria. However, this may change following heathland restoration and creation schemes, currently being carried out as part of the Biodiversity Action Plan.

Primary criteria

The site is an area of over 1 ha in which heather (*Calluna vulgaris*, *Erica cinerea*, *Erica tetralix*) or bilberry (*Vaccinium* sp.) either individually or in combination have at least 25% cover.

Secondary criteria

The site contains 1,000m² (0.1 ha) of heather and/or bilberry which either individually or in combination are present with at least 10% cover.

6 Early successional habitats

LLRBAP: (no category)

UKBAP: (no category)

Bare and sparsely vegetated ground is often an important feature of heathland, acid grassland, calcareous grassland and other habitats on nutrient-poor substrates, allowing colonisation by pioneer species of flowering plants, mosses and lichens. Quarries and other post-industrial sites together with urban demolition sites also support interesting communities of plants, insects and birds which are often characteristic of disturbed semi-natural habitats and which make an important contribution to local biodiversity. Bare ground retains heat especially on south-facing slopes, where it is used by insects such as bees, wasps and ground beetles. The ruderal plants associated with bare ground provide valuable nectar and seed resources for insects, while their floral diversity ensures a rich diversity of plant feeders.

Primary criteria

There are no criteria for the designation of sites purely as bare ground habitat. However secondary criteria may be used to select sites containing bare ground under Habitat Diversity or as a site of social significance under Community Criteria (see page 4).

Secondary criteria

The site contains scattered areas totalling over 200m² of bare ground on a nutrient-poor substrate supporting at least three species from list B:

LIST B - Plant species of early successional habitats	
<i>Aira caryophyllea</i>	Silvery Hair-grass
<i>Aira praecox</i>	Early Hair-grass
<i>Aphanes arvensis</i>	Parsley-piert
<i>Arenaria serpyllifolia</i> agg.	Thyme-leaved sandwort
<i>Catapodium rigidum</i>	Fern grass
<i>Centaureum erythraea</i>	Centaury
<i>Chaenorhinum minus</i>	Small toadflax
<i>Erigeron acris</i>	Blue Fleabane
<i>Erodium cicutarium</i>	Storksbill
<i>Erophila</i> sp.	Whitlow grass
<i>Filago vulgaris</i>	Common Cudweed
<i>Hypericum perforatum</i>	Perforate St John's-wort
<i>Linaria</i> sp.	Toadflax
<i>Oenothera</i> sp.	Evening primrose
<i>Ophrys apifera</i>	Bee Orchid
<i>Ornithopus perpusillus</i>	Birdsfoot
<i>Reseda</i> sp.	Weld / Wild mignonette
<i>Rumex acetosella</i>	Sheep's sorrel
<i>Trifolium striatum</i>	Knotted clover
<i>Verbascum</i> sp	Mullein
<i>Vulpia</i> sp	Rat's-tail / Squirrel-tail fescue

7 Rocks and built structures

LLRBAP: rocks and built structures/ urban habitat – Leicester
 UKBAP: built up areas and gardens (broad habitat)
 urban (broad habitat)

Rock outcrops support interesting communities of plants, especially ferns and lichens. They can also be used by nesting birds such as the peregrine falcon. Natural rock outcrops occur mainly in Charnwood Forest, but natural rock is commonly exposed by quarrying and making cuttings for transport routes. Artificial rock surfaces, such as buildings, walls and gravestones can also be valuable. Old brick or stone structures can be important habitats for ferns. Consequently, all these features are identified as a priority habitat within the Leicester, Leicestershire & Rutland Biodiversity Action Plan. However, these criteria should not be applied to riverbank exposures which are addressed elsewhere.

The quality of any lichen flora is reduced by acid pollutants and the drift of agricultural nutrients which promote the growth of green algae. Candidate sites can be recognised by a combination of physical features: a continuity of exposed surfaces over at least 60 years, freedom from excessive shading by overhanging trees, freedom from obvious sources of air pollution, a surface not dominated by green algae and freedom from excessive trampling by humans or animals.

Primary criteria

The exposure supports one of the indicator lichens from list C or three of the species from list D:

LIST C - Lichen species of rocks and built structures		
<i>Baeomyces rufus</i>	<i>Lecanora subcircinata</i>	<i>Peltigera</i> sp. ⁵
<i>Cladonia</i> sp. ¹	<i>Leptogium</i> sp.	<i>Ramalina</i> sp.
<i>Collema</i> sp. ²	<i>Opegrapha</i> sp. ³	<i>Rhizocarpon geographicum</i>
<i>Dermatocarpon miniatum</i>	<i>Parmelia</i> sp. ⁴	<i>Solenopsora candicans</i>
<i>Diploschistes scruposus</i>	<i>Parmelia disjuncta</i>	<i>Stereocaulon</i> sp.
<i>Dinna stenhammeri</i>	<i>Parmelia loxodes</i>	<i>Toninia coeruleonigricans</i>
<i>Lasallia pustulata</i>	<i>Parmelia verruculifera</i>	<i>Umbilicaria</i> sp.

¹ except *C. chlorophaeum*, *C. fimbriata*, *C. furcata* and *C. didactyla*.

² except *C. tenax* and *C. crispum*.

³ on siliceous rocks only.

⁴ brown species only, but excepting *P. glabratula* ssp. *fuliginosa*.

⁵ except *P. hymenina*, *P. didactyla* and *P. membranacea*.

LIST D - Plant species of rocks and built structures	
<i>Aira caryophyllea</i> , Silver Hair-grass	<i>Catapodium rigidum</i> , Fern grass
<i>Aira praecox</i> , Early Hair-grass	<i>Erodium cicutarium</i> , Storksbill
<i>Aphanes arvensis</i> , Parsley-piert	<i>Erophila</i> sp., Whitlow grass
<i>Arenaria serpyllifolia</i> agg., Thyme-leaved sandwort	<i>Ornithopus perpusillus</i> , Birdsfoot
	<i>Trifolium striatum</i> , Knotted clover

Secondary criteria

The surface supports good populations (at least 50 individual plants) of at least one of the following species of ferns, or populations of at least three species:

LIST E - Fern species of rocks and built structures	
<i>Asplenium adiantum-nigrum</i> , Black spleenwort	<i>Asplenium ceterach</i> , Rustyback fern
<i>Asplenium ruta-muraria</i> , Wall rue	<i>Asplenium scolopendrium</i> , Hart's tongue
<i>Asplenium trichomanes</i> , Maidenhair spleenwort	<i>Polypodium vulgare</i> , Polypody

8 Grasslands

Changes in agricultural practices have severely reduced the herb-rich grassland that was once widespread in Leicestershire and Rutland. Consequently, calcareous and neutral grassland are both listed as priority habitats within the Leicestershire and Rutland Biodiversity Action Plan, while acid grassland is covered by the Heath Grassland Action Plan. With the demise of agricultural grasslands, roadside verges have become important refuges for some plant species and these are covered by the Roadside Verge Action Plan. Herb-rich grassland is a fragile habitat and, in most cases, impossible to recreate or restore once it has been damaged. Consequently, the protection of grassland LWS is an essential component of any nature conservation strategy.

There are several types of grassland represented in Leicestershire and Rutland, but some have survived agricultural changes better than others and so require different site size thresholds. Grass verges often support the only herb-rich grassland left in an area. These linear grasslands are often small in extent - less than 10 metres wide - but are rich in species. Roadside verges are particularly important for calcareous grassland. Many have been designated as roadside verge nature reserves.

LLRBAP: neutral grassland
UKBAP: lowland meadows (priority habitat)
neutral grassland (broad habitat)

Mesotrophic or Neutral grassland is the commonest grassland in Leicestershire and Rutland and is found over neutral and nearly neutral soils throughout the two counties. Traditionally, much of this grassland would have been managed as hay meadow, resulting in a very rich and diverse flora. However, species-rich mesotrophic grassland can also occur in permanent pasture, churchyards, golf courses or even infrequently managed rough grassland. The most important factor governing the richness of mesotrophic grasslands is their sensitivity to agricultural and horticultural improvements such as ploughing, re-seeding, drainage and the application of herbicides, pesticides and inorganic fertilisers.

LLRBAP: (no category)
UKBAP: coastal and floodplain grazing marsh (priority habitat)

Wet grassland is found in floodplains or where there is impeded drainage. It is also frequently associated with springs and flushes. It is often less rich in plant species than drier grasslands, but nevertheless, it is valuable for its own specialist flora.

LLRBAP: (no category)
UKBAP: acid grassland (broad habitat)

Acid grassland in Leicestershire is naturally poor in plant species. It may occur in association with bare ground and rock outcrops. It may also contain heather and other ericaceous shrubs and can grade into heathland. Although invasion by bracken has led to losses of this habitat, it can survive amongst bracken.

LLRBAP: calcareous grassland
UKBAP: lowland calcareous grassland (priority habitat)
calcareous grassland (broad habitat)

Most **calcareous grassland** in Leicestershire and Rutland is of recent origin and is associated with quarries, railway embankments and other post-industrial sites. It is often found in a mosaic with mesotrophic grassland, bare ground and early successional communities.

LLRBAP: (no category)
UKBAP: (no category)

Mixed grassland may support a mosaic of mesotrophic, wet, acid and calcareous grassland types depending on the underlying substrate, hydrology, aspect and other physical features of the site. Quarries, spoil tips, railways and other post-industrial sites often support mixed grassland habitats of great diversity.

As well as being important for plants, herb-rich grasslands support valuable animal populations which often depend on the surrounding hedges for nesting and hibernation sites. Consequently, surrounding hedges should be included in the LWS boundary.

The DAFOR values used in these criteria correspond to the following ranges of percentage cover:

D	75-100% cover
A	25-74% cover
F	10-24% cover
O	5-9% cover
R	<5% cover and < 5 individuals / clumps within the survey unit

Primary criteria

Mesotrophic grasslands should be at least 2500m² or 200m of linear habitat in extent in which at least 7 species from list F should be Occasional, Frequent, Abundant or Dominant or at least 10 species from grassland list F should be present.

LIST F - Mesotrophic grassland species	
<i>Agrimonia eupatoria</i>	Agrimony
<i>Alchemilla</i> sp.	Lady's mantle
<i>Betonica officinalis</i>	Betony
<i>Campanula rotundifolia</i>	Harebell
<i>Carex binervis</i>	Green-ribbed Sedge
<i>Carex caryophyllea</i>	Spring-sedge
<i>Carex flacca</i>	Glaucous Sedge
<i>Carex nigra</i>	Common Sedge
<i>Carex leporina</i>	Oval Sedge
<i>Carex pallescens</i>	Pale Sedge
<i>Carex panicea</i>	Carnation Sedge
<i>Carex spicata</i>	Spiked Sedge
<i>Centaurea nigra</i>	Knapweed
<i>Conopodium majus</i>	Pignut
<i>Filipendula ulmaria</i>	Meadow sweet
<i>Filipendula vulgaris</i>	Dropwort
<i>Galium verum</i>	Lady's bedstraw

<i>Knautia arvensis</i>	Field scabious
<i>Lathyrus pratensis</i>	Meadow vetchling
<i>Leontodon hispidus</i>	Rough Hawkbit
<i>Leucanthemum vulgare</i>	Ox-eye daisy
<i>Lotus corniculatus</i>	Birdsfoot trefoil
<i>Luzula campestris</i>	Field woodrush
<i>Ononis</i> sp.	Rest-harrow
<i>Pimpinella saxifraga</i>	Burnet saxifrage
<i>Potentilla erecta</i>	Tormentil
<i>Primula veris</i>	Cowslip
<i>Ranunculus acris</i>	Meadow buttercup
<i>Ranunculus bulbosus</i>	Bulbous buttercup
<i>Rhinanthus minor</i>	Yellow rattle
<i>Rumex acetosa</i>	Sorrel
<i>Sanguisorba officinalis</i>	Great burnet
<i>Saxifraga granulata</i>	Meadow saxifrage
<i>Scorzoneroides autumnalis</i>	Autumnal Hawkbit
<i>Silaum silaus</i>	Pepper saxifrage
<i>Succisa pratensis</i>	Devil's-bit scabious
<i>Trifolium pratense</i>	Red clover

Wet grasslands should be seasonally flooded and at least 2500m² in extent in which at least 6 species from grassland lists F and G combined should be present.

LIST G - Wet grassland species	
<i>Achillea ptarmica</i>	Sneezewort
<i>Angelica sylvestris</i>	Wild Angelica
<i>Caltha palustris</i>	Marsh Marigold
<i>Cardamine pratensis</i>	Cuckoo flower or Lady's Smock
<i>Carex acuta</i>	Slender Tufted-sedge
<i>Carex acutiformis</i>	Lesser Pond-sedge
<i>Carex disticha</i>	Brown Sedge
<i>Carex otrubae</i>	False Fox-sedge
<i>Carex riparia</i>	Greater Pond-sedge
<i>Cirsium palustre</i>	Marsh Thistle
<i>Galium palustre</i>	Marsh Bedstraw
<i>Juncus acutiflorus</i>	Sharp-flowered Rush
<i>Juncus articulatus</i>	Jointed Rush
<i>Juncus bufonius</i>	Toad Rush
<i>Juncus bulbosus</i>	Bulbous Rush
<i>Juncus conglomeratus</i>	Compact Rush
<i>Juncus effusus</i>	Soft-rush
<i>Juncus inflexus</i>	Hard Rush
<i>Juncus tenuis</i>	Slender Rush
<i>Lotus pedunculatus</i>	Greater bird's-foot trefoil
<i>Silene flos-cuculi</i>	Ragged robin
<i>Oenanthe fistulosa</i>	Tubular water dropwort
<i>Pulicaria dysenterica</i>	Common fleabane
<i>Ranunculus flammula</i>	Lesser spearwort
<i>Thalictrum flavum</i>	Common meadow rue
<i>Triglochin palustre</i>	Marsh arrow-grass

Acid grasslands should be at least 1000m² in extent, in which at least 3 of the species in table H should be Frequent, Abundant or Dominant or at least 5 species should be present.

LIST H - Acid grassland species	
<i>Agrostis capillaris</i> , Common bent	<i>Juncus squarrosus</i> , Heath rush
<i>Calluna vulgaris</i> , Ling	<i>Lathyrus linifolius</i> var. <i>montanus</i> , Bitter vetch
<i>Campanula rotundifolia</i> , Harebell	<i>Luzula multiflora</i> , Heath woodrush
<i>Danthonia decumbens</i> , Heath grass	<i>Nardus stricta</i> , Mat grass
<i>Deschampsia flexuosa</i> , Wavy hair-grass	<i>Potentilla erecta</i> , Tormentil
<i>Erica tetralix</i> , Cross-leaved Heath	<i>Rumex acetosella</i> , Sheep's sorrel
<i>Festuca ovina</i> , Sheep's fescue	<i>Vaccinium myrtillus</i> , Bilberry
<i>Galium saxatile</i> , Heath bedstraw	

Calcareous grasslands should be at least 2500m² or 200m of linear habitat in extent, in which at least 5 of the species in list J should be present.

LIST J - Calcareous grassland species	
<i>Agrimonia eupatoria</i> , Agrimony	<i>Inula conyzae</i> , Ploughman's spikenard
<i>Anacamptis pyramidalis</i> , Pyramidal orchid	<i>Knautia arvensis</i> , Field scabious
<i>Anthyllis vulneraria</i> , Kidney vetch	<i>Linum catharticum</i> , Purging flax
<i>Blackstonia perfoliata</i> , Yellow-wort	<i>Ononis</i> sp., Rest-harrow
<i>Campanula glomerata</i> , Clustered bellflower	<i>Ophrys apifera</i> , Bee orchid
<i>Centaurea scabiosa</i> , Greater knapweed	<i>Origanum vulgare</i> , Marjoram
<i>Clinopodium vulgare</i> , Wild basil	<i>Orobanche elatior</i> , Knapweed broomrape
<i>Echium vulgare</i> , Viper's bugloss	<i>Pimpinella saxifraga</i> , Burnet saxifrage
<i>Erigeron acer</i> , Blue fleabane	<i>Plantago media</i> , Hoary plantain
<i>Euphrasia</i> sp., Eyebright	<i>Poterium sanguisorba</i> , Salad burnet
<i>Gentianella amarella</i> , Autumn gentian	<i>Scabiosa columbaria</i> , Small scabious
<i>Helianthemum nummularium</i> , Rock-rose	<i>Thymus</i> sp., Thyme

Mixed grasslands should be at least 2500m² or 200m of linear habitat in extent, in which at least 10 species from lists F, G, H and J combined should be present.

Secondary criteria

The site is at least 2500m² in extent, in which at least 8 species from lists F, G, H and J combined should be present.

9 Wetlands

Fast-flowing streams form the subject of a habitat action plan within the Leicester, Leicestershire and Rutland Biodiversity Action Plan. Large rivers have also been identified as a priority habitat. Despite the large human impact on large rivers in the region, they still retain many natural features and associated biodiversity. Other types of flowing water are also of substantive interest, such as the stretch of the River Eye which has been designated as a SSSI. Rivers are of great value not only for their aquatic flora and fauna, but also for riparian wildlife. At a larger scale, the major river valleys represent valuable concentrations of semi-natural habitat in an otherwise intensively cultivated or urban landscape. The Local Environment Agency Plans for each catchment recognise the link between main rivers and their catchments and take a strategic approach to their management which integrates ecological and other objectives.

The number of static water bodies in Leicestershire and Rutland has steadily increased due to mineral extraction, the creation of fishing lakes and the construction of garden ponds and other ornamental features. Many of these new sites attract a diverse flora and fauna and are of great value for wildlife. By contrast, several more traditional habitat types of value for nature conservation are in decline. Because of this, springs and flushes, sphagnum ponds, field ponds and floodplain wetlands are prioritised for action within the Leicester, Leicestershire and Rutland Biodiversity Action Plan. Reedbeds are prioritised primarily for their value to birds. A further priority habitat, mesotrophic lakes, is represented purely by existing SSSIs.

Wetland habitats are difficult to classify into discrete end-groups requiring separate criteria. These difficulties are compounded by the large scale human modifications to these habitats in Leicestershire and Rutland. Criteria are given for three main wetland types, but there is necessarily some overlap between these groups. It is not currently possible to give primary criteria for recognising habitat quality in ponds and spring-fed flushes using physical features or indicator species. Where they occur outside of habitat mosaics, they should be evaluated using Red Data Book species and species assemblages as appropriate.

9.1 Streams and smaller rivers

LLRBAP: fast-flowing streams
UKBAP: rivers and streams (broad habitat)

LWS boundaries should be set so as to exclude stretches of 0.5km in length without these natural features. A riparian zone of at least 6 metres should be included around the water feature and within each LWS.

Primary criteria

The stream contains one of the following features:

Feature	Size threshold
riffle and pool system	none
braided channel	none
gravel substrate	20m stretch
sedimentary bar exposed in periods of low flow and not subject to excessive trampling	4m ²
earth cliff eroded by water course	1m high
waterfall	1.5m high
moss-covered bedrock or boulders	none
riparian trees with exposed roots and overhanging branches on rivers wider than three metres	trees ≥ 10m high
presence of <i>Potamogeton</i> sp., Pondweed (except <i>P. pectinatus</i>), or <i>Ranunculus fluitans</i> , River water crowfoot or <i>Ranunculus penicillatus</i> , Stream water-crowfoot	none

Secondary criteria

The stream contains one of the following features:

Feature	Size threshold
meanders	none
sedimentary bar exposed at low flow	4m ²
backwaters or cut off oxbows	none
weirs	1m high

9.2 Large rivers and canals

LLRBAP: flood plain wetland/ eutrophic standing water
 UKBAP: eutrophic standing water (priority habitat)
 rivers and streams (broad habitat)

LWS boundaries should be set so as to exclude stretches of 1km in length without these features. A riparian zone of at least 6 metres should be included around the water feature and within each LWS. It is recommended that key features and species are mapped.

Primary criteria

The stretch contains one of the following features:

Feature	Size threshold
sedimentary bar exposed in periods of low flow and not subject to excessive trampling	20m ²
earth cliff eroded by water course	1.5m high
riparian trees with exposed roots and overhanging branches	trees ≥ 10m high
presence of <i>Potamogeton</i> , Pondweed, (except <i>P. pectinatus</i>), <i>Ranunculus fluitans</i> , River water crowfoot, or <i>Ranunculus penicillatus</i> , Stream water-crowfoot or <i>Myriophyllum</i> sp., Water milfoil	none
fringes of emergent vegetation along 75% of one bank	per 1 km stretch
stands or fringes of at least five of the species in list K	per 1 km stretch
mats of floating vegetation of one or more species in list L	500m ² per 1km stretch

LIST K - Emergent wetland species	
<i>Carex</i> sp., Sedge	<i>Rumex hydrolapathum</i> , Water dock
<i>Eleocharis palustris</i> , Common spike-rush	<i>Schoenoplectus lacustris</i> , Bulrush
<i>Equisetum fluviatile</i> , Water horsetail	<i>Sparganium erectum</i> , Branched bur-reed
<i>Glyceria maxima</i> , Reed sweet-grass	<i>Typha angustifolia</i> , Lesser Reedmace
<i>Phragmites australis</i> , Reed	<i>Typha latifolia</i> , Reedmace
<i>Rorippa amphibia</i> , Great yellow cress	

LIST L - Floating wetland species	
<i>Nuphar lutea</i> , Yellow water lily	<i>Ranunculus</i> spp., Water crowfoot
<i>Persicaria amphibia</i> , Amphibious bistort	<i>Sparganium emersum</i> , Unbranched bur-reed

Secondary criteria

The stretch contains one of the following features:

Feature	Size threshold
sedimentary bar exposed at low flow	20m ²
backwaters or oxbows	None

9.3 Standing water bodies, swamps, fens and ditches

- LLRBAP:** flood plain wetland
eutrophic standing water
sphagnum ponds
springs and flushes
- UKBAP:** eutrophic standing water (priority habitat)
fens (priority habitat)
rivers and streams (broad habitat)
fen, marsh and swamp (broad habitat)

A riparian zone of at least 6 metres around each open water body should be included within the LWS.

Primary criteria

The site contains one of the following features:

Feature	Size threshold
presence of <i>Potamogeton</i> , Pondweed (except <i>P. pectinatus</i>), <i>Sphagnum</i> sp. or <i>Myriophyllum</i> sp., Water milfoil	none
stand of <i>Carex</i> sp., Sedge (except <i>C. hirta</i>); <i>Typha angustifolia</i> , Lesser reedmace	200m ²
<i>Phragmites</i> , Reed bed	500m ²
stands of emergent vegetation	1,000m ²
stands of at least five of the species in list K (see above)	none
mats of floating vegetation of one or more species in list L (see above)	500m ²
floating rafts of <i>Glyceria maxima</i> , Reed sweet-grass, <i>Phragmites</i> , Reed or <i>Typha</i> , Reedmace	100m ²
presence of a draw-down zone with <i>Rumex maritimus</i> , Golden dock	1,000m ²
a recently unmodified spring in woodland that has been established for over 50 years	none
A ditch with 8 spp from Lists G,K and L combined (see above) present in channel and on banks	50m

Secondary criteria

The site fits at least one of the following descriptions:

Description	Size threshold
flush fed by natural spring	none
located in floodplain and seasonally flooded from an adjacent watercourse (NB - watercourse should be identified in the site notification form)	none
permanent or temporary field pond	None
A ditch with 6 spp from Lists G,K and L combined (see above) present in channel and on banks	50m

10 Field Margins (Arable Plant Communities)

LLRBAP: field margins
UKBAP: cereal field margins (priority habitat)
 arable and horticulture (broad habitat)

Arable field margins act as a buffer zone between the field boundary and the crop or road, and form important wildlife corridors. Arable plant species and communities have been undergoing national declines for over 60 years. Many species typical of arable land-use are now rare nationally and in Leicestershire and Rutland. Arable plants are a distinctive part of our flora and culture and often provide a valuable food source for farmland invertebrates, birds and mammals.

Designating fields or parts of fields that support elements of this flora as Local Wildlife Sites has not previously been undertaken in Leicestershire and Rutland, although sites have been designated elsewhere in the UK. The transitory nature of some of these weeds creates problems in the selection of sites and good sites may vary from year to year depending upon management and physical conditions. Most arable plant species benefit from seeds that remain viable, yet dormant, in the soil seed bank over decades. Though they may appear to be absent during an unfavourable season, most will reappear when conditions improve.

Primary criteria

The site meets the following criteria:

Limestone soil with at least 8 species that are Dominant, Abundant or Frequent (D,A,F) from List M below
Clay soil with at least 6 species that are Dominant, Abundant or Frequent (D,A,F) from List M below
Sandy or freely draining acidic soil with at least 6 species from List M that are Dominant, Abundant or Frequent (D,A,F) below

There is no minimum size criterion for either of the above.

Any arable plant community present within a field or field margin that meets the above guideline can be selected. The whole field will be selected as a Local Wildlife Site, not just the field margin in which the species have been recorded. Arable plants should ideally be present as part of an agricultural crop rotation system that allows the community to persist. Community composition may change during the course of the crop rotation.

List M: Arable plants	
<i>Anagallis arvensis</i>	Scarlet pimpernel
<i>Aphanes arvensis agg</i>	Parsley-piert
<i>Arenaria serpyllifolia serpyllifolia</i>	Thyme-leaved sandwort
<i>Carduus nutans</i>	Nodding thistle
<i>Chenopodium ficifolium</i>	Fig-leaved goosefoot
<i>Chenopodium hybridum</i>	Maple-leaved goosefoot
<i>Chenopodium polyspermum</i>	Many-seeded goosefoot
<i>Euphorbia exigua</i>	Dwarf spurge
<i>Euphorbia helioscopia</i>	Sun spurge
<i>Fallopia convolvulus</i>	Black bindweed
<i>Fumaria officinalis</i>	Common fumitory
<i>Galeopsis tetrahit</i>	Common hemp-nettle

<i>Geranium pusillum</i>	Small-flowered crane's-bill
<i>Kickxia spuria</i>	Round-leaved fluellen
<i>Lamium amplexicaule</i>	Henbit dead-nettle
<i>Mentha arvensis</i>	Corn mint
<i>Papaver dubium</i>	Long-headed poppy
<i>Papaver rhoeas</i>	Common poppy
<i>Raphanus raphanistrum</i>	Wild radish
<i>Sherardia arvensis</i>	Field madder
<i>Sinapis arvensis</i>	Charlock
<i>Thlaspi arvense</i>	Field pennycress
<i>Urtica urens</i>	Small nettle
<i>Viola arvensis</i>	Field pansy

Secondary criteria

There are no secondary criteria for field margins habitat.

Sites which support Red Data Book species qualify under the Red Data Book Criteria, see List N on page 27.

Red Data Book Species Criteria

1. Definition of Local RDB species

LWS can be selected for the presence of Leicestershire and Rutland Red Data Book Species in the following circumstances:

Bryophytes: Sites with validated records, in accordance with the criteria within the *Leicestershire and Rutland Red Data Book: Bryophytes (1997)* as updated by the *Leicestershire Bryophyte Flora 2004*, and any future revisions.

Flowering plants, ferns, clubmosses and horsetails: Sites with validated records, in accordance with the criteria within the most recent Checklist and Rare Plant Register 2010, and any future revisions. Plants must have been recorded within the last 15 years. If a species has not been present on the site for 5 consecutive visits, the species cannot be used to select a LWS.

Birds: Sites with significant and established populations of L&R RDB Bird species can be selected as LWS.

- L&R RDB birds are defined as uncommon, scarce, rare or very rare breeding or wintering species within a current LROS County list, OR species listed in the latest BOCC as a 'red' or 'amber' species, OR a current UKBAP or LBAP priority species.
- Bird populations can only be used to select LWS according to the criteria used for their inclusion in the current LROS County List (*e.g. rare breeding birds should only be used to select breeding sites; rare winter visitors should only be used to select wintering sites.*)
- A significant population is defined as supporting at least 10% of the usual range of occurrence for that species within a current LROS County list (*e.g. for an uncommon breeding species, a LWS would need to support 10 breeding pairs; for a scarce species, 1 breeding pair would be sufficient; for a common bird, 100 breeding pairs would be required*).
- An established population is where the species has been recorded in significant number on 5 occasions within the last 15 years.
- The LROS Records Committee require either descriptions or records from three or more observers before some species records can be validated.
- Refer to the LROS website for more details: www.lros.org.uk

Mammals, Reptiles, Amphibians and Fish: Sites supporting significant and/or established populations of species listed in the *Leicestershire Red Data Book: Mammals, Reptiles, Amphibians & Fish (1997)*, until the end of 2012 only, and any future revisions. Species should have been recorded in their breeding, roosting, feeding or hibernation habitat within the previous 15 years.

Other species: Sites with validated records of significant/established populations of species in the following categories:

- in accordance with national RDB criteria for that species; OR
- in accordance with recent published local guidance, endorsed by the relevant County Recorder/Co-ordinator or Recording Group; OR
- in accordance with the criteria within the *Inventory of Key Species in Leicestershire and Rutland (1997)*; OR
- listed in the UKBAP or local BAP as of priority conservation concern.

Note: Some nationally scarce invertebrate species can be widespread in Leicestershire and Rutland. It is not envisaged that these species will be used to select habitats which are otherwise of low value or of a transient or ephemeral nature.

2. Valid records

Critical species records must be validated by the County Recorder or a National Recorder. Critical species are defined as those listed as such in local or national checklists and publications. If a recent critical list for our area does not exist for a species' group, the record must be validated.

County Recorders/Co-ordinators should be notified if local RDB species are recorded. An up-to-date list of County Recorders/Co-ordinators and their contact details can be obtained from LRERC. Note that some County Recorders require voucher specimens before validating a record.

Highly mobile and/or colonising species: (e.g. many birds, larger mammals, some invertebrates): must be recorded in at least 5 of the last 15 years

Mobile species: (some birds, most smaller mammals, amphibians, many invertebrates): must be recorded in at least 5 of the previous 25 years

Sedentary or non-mobile species: (many invertebrates, plants, mosses, lichens and fungi): must be recorded at least twice in the last 30 years.

3. Other information required on the LWS notification form

- Grid references for local RDB species - a 6-fig reference is adequate (e.g. SK123456) for mobile species or for large or dispersed populations within a site; an 8-fig grid reference (e.g. SP12345678) is needed for individual plants or for small isolated populations of non-mobile species.
- If appropriate, the location of the species record should be marked on the accompanying map. This is not necessary for highly mobile species, or for sensitive records.
- Approximate numbers of individuals, or an estimate of abundance.
- Recording date (month and year is sufficient).
- Recorder - if this is not the proposer of the LWS, the Recorder's position should be noted also (e.g. Volunteer Ranger, LRWT Field surveyor, Heritage Warden, Ecological consultant)
- Validator's name and validation date, if relevant

Species Assemblage Criteria

1 Breeding bird assemblages

Important assemblages of breeding bird species occur in a limited number of habitats in Leicester, Leicestershire and Rutland. Scores have been assigned as follows to each species according to their estimated populations according to the Leicestershire Red Data Book of birds:

- 1 = 10,000+ pairs
- 2 = 1,001 - 10,000 pairs
- 3 = 101 - 1,000 pairs
- 4 = 11 - 100 pairs
- 5 = 1 - 10 pairs
- 6 = less than annual

A site meets the criterion for LWS selection, if the sum of its individual species scores is equal to or greater than the threshold value given for the appropriate habitat. There has to be evidence that a species is breeding for its score to be included in the sum. It should be noted that sites which support species categorised as 'rare' already meet the Red Data Book species criteria for LWS selection, but they are still listed below and marked with an asterisk.

Open waters and their margins

The threshold value for these habitats is 30 based on the following species scores:

Little Grebe	4	Pochard*	6	Common Tern*	4
Great Crested Grebe	4	Tufted Duck	4	Cuckoo	3
Black-necked Grebe*	5	Water Rail*	5	Kingfisher	3
Cormorant	4	Moorhen	2	Sand Martin*	4
Grey Heron	4	Coot	3	Yellow Wagtail	3
Mute Swan	4	Oystercatcher*	5	Grey Wagtail	5
Shelduck*	5	Little Ringed Plover*	4	Grasshopper Warbler	4
Gadwall*	5	Ringed Plover*	5	Sedge Warbler	3
Teal*	6	Lapwing	3	Reed Warbler	4
Mallard	3	Snipe*	5	Willow Tit	2
Garganey*	6	Redshank*	5	Reed Bunting	2
Shoveler*	6	Black-headed Gull*	4		

Woodland, scrub, parkland, allotments and golf courses

The threshold value for these habitats is 40 based on the following species scores:

Sparrowhawk	3	Redstart*	5	Nuthatch	3
Kestrel	3	Blackbird	1	Treecreeper	2
Hobby*	4	Song Thrush	2	Jay	2
Pheasant	2	Mistle Thrush	2	Magpie	2
Woodcock*	4	Grasshopper Warbler	4	Jackdaw	2
Stock Dove	2	Lesser Whitethroat	3	Rook	1
Woodpigeon	1	Whitethroat	2	Carrion Crow	2
Turtle Dove	4	Garden Warbler	2	Starling	1
Cuckoo	3	Blackcap	2	Tree Sparrow	3
Tawny Owl	2	Wood Warbler*	5	Chaffinch	1
Long-eared Owl*	5	Chiffchaff	2	Greenfinch	2
Nightjar*	6	Willow Warbler	1	Goldfinch	2
Green Woodpecker	3	Goldcrest	2	Linnet	2
Gt. Sp. Woodpecker	3	Spotted Flycatcher	3	Redpoll	4
L. Sp. Woodpecker	4	Long-tailed Tit	2	Common Crossbill*	6
Tree Pipit*	4	Marsh Tit	2	Bullfinch	2
Wren	1	Willow Tit	2	Hawfinch*	5
Dunnock	1	Coal Tit	2	Yellowhammer	2
Robin	1	Blue Tit	1	Reed Bunting	2
Nightingale*	5	Great Tit	1		

2 Wintering bird assemblages

Open water sites sometimes hold large numbers of a variety of species of wintering wildfowl. Sites regularly holding a total of more than 750 birds made up of the following species should be selected as LWS:

Little Grebe	Gadwall	Shoveler	Goldeneye
Great Crested Grebe	Teal	Pochard	Coot
Mute Swan	Mallard	Tufted Duck	Moorhen
Wigeon	Pintail	Goosander	

3 Amphibian assemblages

A site should be selected as a LWS if it contains a population of any one amphibian species which meets the thresholds listed below or if it contains populations of two species at half the listed threshold.

Common Frog	50 spawn clumps counted
Common Toad	100 adults counted
Smooth Newt	30 adults trapped, netted or counted at night

4 Lichen assemblages on mineral substrata

The chemistry and texture of the substrate greatly influences the species richness of its lichen flora. Therefore substrates should first be classified as calcareous or siliceous.

Calcareous substrata	Siliceous substrata
limestone concrete and mortar asbestos cement	slate granite volcanic ash and tuff sandstone brick and asphalt

A site should be selected as a LWS if it supports the number of lichen species listed below. If a site contains both calcareous and siliceous substrata, the individual rock-type totals should be used, not the combined total.

Habitat type	Siliceous substrata	Calcareous substrata
hill tops and cliff outcrops	20	25
quarries	20	25
river banks	20	20
shingle	20	20
buildings	25	40
walls	25	40
monuments	15	20
churchyards	25	40
derelict sites	15	15

5 Grassland fungi

Grassland fungi are especially vulnerable to agricultural improvement and have declined dramatically in recent years. Although many grassland sites will be identified as Local Wildlife Sites because of their vascular plant interest, steps should be taken to ensure sites important for fungi are also identified.

To assess whether a particular area of grassland meets the LWS criteria for grassland fungi, the CHEG profile developed by Rotheroe (Rotheroe et al, 1996) is used. The evaluation of grassland sites with fungal conservation value is based on the following four fungi groups: -

A site should be selected as a LWS if it has at least 8 species from the following list of rare or endangered fungus species of semi-natural grassland:

Clavarioid fungi : the Fairy Clubs	
<i>Clavaria zollingeri</i>	<i>Clavulinopsis umbrinella</i>
Hygrocybes : the Waxcaps	
<i>Hygrocybe aurantiosplendens</i>	<i>Hygrocybe lacmus</i>
<i>Hygrocybe calyptriformis</i>	<i>Hygrocybe nitrata</i>
<i>Hygrocybe citrinovirens</i>	<i>Hygrocybe ovina</i>
<i>Hygrocybe colmanniana</i>	<i>Hygrocybe punicea</i>
<i>Hygrocybe flavipes</i>	<i>Hygrocybe quieta</i>
<i>Hygrocybe fornicata</i>	<i>Hygrocybe spadicea</i>
<i>Hygrocybe helobia</i>	<i>Hygrocybe splendidissima</i>
<i>Hygrocybe ingrata</i>	<i>Hygrocybe vitellina</i>
<i>Hygrocybe irrigata</i>	<i>Porpoloma metapodium</i>
<i>Hygrocybe intermedia</i>	
Entolomas : the Pinkgills	
<i>Entoloma bloxamii</i>	<i>Entoloma prunuloides</i>
<i>Entoloma incanum</i>	
Geoglossaceae : the Earth Tongues	
All species except <i>Geoglossum fallax</i> (the most common).	<i>Microglossum olivaceum</i>

6 Dragonflies and Damselflies

- A site will meet the criteria if it supports breeding populations of 8 or more species of Odonata.
- A site will meet the criteria if it supports a breeding population of any of the following species:

<i>Coenagrion pulchellum</i>	Variable Damselfly
<i>Lestes sponsa</i>	Emerald Damselfly
<i>Platycnemis pennipes</i>	White-legged Damselfly
<i>Brachytron pratense</i>	Hairy Dragonfly
<i>Libellula quadrimaculata</i>	Four-spotted Chaser
<i>Sympetrum sanguineum</i>	Ruddy Darter

For the purposes of these guidelines exuviae, larvae, pre-flight emergents or oviposition are recognised as evidence of breeding, as outlined by British Dragonfly Society, Dragonfly Conservation Group (Taylor, 2003).

Breeding records should have been observed within 5 years of the designation.

Variable Damselfly has been selected due to its listing in the British Odonata Red Data Book (2008). The remaining species are selected because they are considered to be scarce in Leicestershire and Rutland, and favour good quality habitats.

The 'Guidelines for selection of biological SSSIs' regard 12 *Odonata* species as representing an outstanding assemblage for this region (based on 60% of the breeding species). 40% (8 species) has been agreed for a LWS designation as being a reasonable number for selecting locally outstanding assemblages.

LWS designated under this criterion should include networks of water bodies. Watercourses should be at least 0.5km long.

Community Criteria

Many wildlife sites are valuable because they give access to the public to see and enjoy wildlife. Our quality of life is enhanced by everyday contact with wildlife. Having access to wildlife sites close at hand increases our opportunities to study and learn about ecology and the natural world.

The importance of wildlife sites for people has been recognised for many years. Command 7122, Conservation of Nature in England Wales, published in 1947, stated that the purposes of nature conservation are '*...conservation, biological survey and research, experiment, education and amenity*'. Planning policy guidance published by central government (PPS9) states that '*...sites of local conservation ...are important to local communities, often affording people the only opportunity of direct contact with nature, especially in urban areas*'.

Community criteria apply not only to urban areas, but also to Country Parks, churchyards and any places in the town, countryside or urban fringe where people can experience wildlife. These criteria assess the social value derived from the enjoyment and understanding of wildlife and natural features on site. Therefore, to be selected, a site must be demonstrated to have substantive value for wildlife by at least meeting secondary criteria described in other sections.

Indicators of value to the community are assessed at three levels (High, Medium and Low). A quantitative assessment is not possible for all factors. It is important in these instances to collate documentary evidence to support the assessment.

1 Accessibility and usage

Accessibility and usage should be assessed by a single site survey looking for evidence of human activity. Use of a site varies according to time of day, season and weather. In addition, activity will increase at the weekend and during holidays. For this reason, only hard evidence in the form of physical features seen on the site should be used; observed use by people is not a reliable indicator because it will be affected by too many factors. A human use map showing the path network, access points, links to other facilities and locations of main features such as areas for informal children's play, should be documented as part of the assessment.

Criteria

The site is a public open space or freely open to the public most of the time and is either rated H for two of the following indicators or M for three of the indicators:

Indicator	Score	Notes
Proportion of site covered by paths and their level of use.	H/M/L	Informal desire lines represent evidence equivalent to formal hard-core paths. Vegetation encroachment, very narrow paths and significant areas of the site with no paths all indicate low usage.
Number of formal and informal access points.	H/M/L	
Ease of access for less able people or wheelchair users.	H/M/L	Positive features include low gradients; good bound surfaces; absence of steps, kerbs, ruts and muddy patches; kissing gates or open access points; seating places; handrails.
Evidence of use by children for informal play using natural features.	H/M/L	Positive features include signs of tree climbing; building dens; stream dams; swings.

Alternatively, over 50% of the site can be seen from adjacent land which is freely open to public access (such as a park, public open space, canal towpath, public right of way or highway). This criterion is applicable to sites such as lakes, reservoirs and sewage treatment works used by birdwatchers where physical access is not feasible.

2 Education and awareness

The use of a site for informal education and awareness-raising of the general public needs to be considered as well as its formal use by educational establishments.

Criteria

The site is rated H for one or M for two of the following indicators:

Indicator	Score	Notes
Level of use by schools and education establishments for studying wildlife and the environment.	H/M/L	H = regularly used for core curriculum; M = irregularly used for core curriculum.
Provision at the site of a ranger or warden service whose remit includes helping the public to understand and appreciate the wildlife of the site.	H/M/L	H = full-time rota of paid staff or volunteers, M = part-time service.
Facilities to help visitors understand and appreciate the site's wildlife. These facilities must be available to all sectors of the community.	H/M/L	Facilities could include a visitor centre and interpretative leaflets or panels. H = freely available on site for most of the time, M = accessible at weekends or off site.
Level of use for community development and training on an environmental theme.	H/M/L	Links with British Trust for Conservation Volunteers, Groundwork and Urban Fringe Countryside Management Project would be applicable here. H = 12+ events per year, M = 3+ events per year.

3 Sense of ownership

Sites of importance to the local community may be 'adopted' by a group of people either informally or by agreement with the owner. It is not necessary for the site to be accessible to a group for them to feel ownership of it.

Criterion

There is a group of people who have been actively and voluntarily involved in the care and management of the wildlife of the site or actively campaigning for the site for some time.

Group activities may include voluntary wardening, species recording, practical nature conservation management, habitat creation, guided walks and organising events. Groups do not need to be solely responsible for a site, but can be actively involved in a partnership with other agencies.

4 History

Sites may be of value to the community because they played an important historic role in natural history or because they are associated with a well-known naturalist. Other sites may continue to play an important role as part of a monitoring scheme.

Criteria

The site is associated with an historic event of significance to the study of wildlife and the environment. For example, the site may have been featured in an important publication, studied by a famous naturalist or was a key site in the development of ecological understanding, whether in a local or wider context.

or

There is an historical record of past management and wildlife on the site. The historical record must be extensive and systematic so that it can provide a genuine and scientific basis for site monitoring.

Selection and Notification Procedure

The purpose of the procedure is:

- to ensure that there is a consistent approach to LWS identification across Leicester, Leicestershire and Rutland and that this is compatible with others in the East Midland Region and with DEFRA's national guidelines on Local Sites;
- to ensure that all LWS identified under this system are of consistently high quality;
- to ensure that LWS and LWS selection criteria are reviewed at appropriate intervals;
- to ensure that LWS are identified by a consensus of local nature conservation experts;
- to provide a forum of advice on the interpretation of LWS selection criteria;
- to ensure that the identification of LWS is transparent and open to public scrutiny.

1 How can LWS be proposed?

A draft notification form for each proposed LWS must be submitted to the Chair of the LWS Review Panel for discussion at their next half yearly meeting. The current Chair is:

Sue Timms, Principal Ecologist
Leicestershire County Council
County Hall
Glenfield

The Panel members are local ecological experts from Natural England; Leicestershire and Rutland Wildlife Trust; Leicester, Leicestershire County Council Historic and Natural Environment Team; Leicester City Council; Rutland County Council, Oadby and Wigston Borough Council and Charnwood Borough Council. Further members may be co-opted by the Panel. A Chair is elected from the Panel.

A sample form to be used in the submission is appended. It should be clearly marked 'Draft'. Supporting information in the form of an accurate location map and survey reports must be included with the submission. A non-technical summary and site description, suitable for sending to the landowner, should also be submitted. The brief site description should include:

- a note on evidence of current or past management (such as grazing, coppicing, hedge laying, etc.)
- some management suggestions
- a note on threats to the sites (such as over-grazing, scrub, development, shading)
- a note on general condition (e.g. Good, Reasonable, Poor)
- an assessment of whether the site is likely to improve, decline or stay the same (e.g. improving, declining, unchanging)

Information submitted less than one month before a LWS Review Panel meeting cannot be considered except in special circumstances.

2 Who can propose new LWS?

Any organisation or individual can propose a LWS, but the proposal should be discussed beforehand with one of the LWS Review Panel members. These members will be able to advise on the interpretation of the LWS criteria and, if appropriate, will help with the submission of the information to the Review Panel.

Whenever possible, the LWS proposal should be discussed with the appropriate landowner, occupier or manager.

3 The LWS Review Panel meeting

The Chair of the LWS Review Panel will send copies of the proposals to the other Panel members, and to the appropriate land-owners, for discussion at each half yearly meeting. The meeting will usually take place in March and October. In some circumstances, a special meeting of the Panel could be called.

The members of the Panel in attendance at the meeting will arrive at a consensus decision about the proposed LWS. A quorum of 4 members is required. The proposal will either be accepted or rejected, or a request for additional information will be made.

Sometimes a request for verification of the supporting information, especially of Red Data Book species, may be made. It is recommended that these species records are verified beforehand by the appropriate regional or national authority.

The Panel will give a clear explanation of the reasons for any rejection, and the forms will be kept by the Chair for future reference. There is no appeals procedure, but the proposed LWS can be re-submitted if further information becomes available.

4 Additional information

The Panel will specify what information will be required, and how it should be submitted. To avoid delays, it will not always be necessary to report back to the next Panel meeting, once this information is submitted to the Chair. If the nature of the required information is fairly straightforward, the Chair will use his discretion (after consultation with other Panel members if necessary) to decide on a final acceptance or rejection. However, if the additional information needed is extensive or complex, then the proposal may need to be re-submitted at the next half yearly meeting of the Panel.

5 Formal notification

Once a new LWS is accepted, a final notification form will be completed. This, together with the necessary supporting information, will be sent within one month to the relevant planning authority, to the originating organisation or individual, and to the members of the LWS Review Panel.

6 Informing owners and managers

In addition, a standard letter will also be sent to the landowner, occupier or manager explaining the purpose and status of LWS and of the importance of the particular site within their care. This will include the non-technical site description, a location map and a summary of the reasons for the notification which should be drafted by the proposer, or by the proposer's supporter from the LWS Review Panel. A contact name for further advice will also be given.

7 Development plans

The LWS Review Panel will request that planning policies give adequate protection to LWS and encourage the taking of opportunities for their enhancement through development schemes. The Panel will monitor the effectiveness of the LWS system in influencing Development Plans.

8 Review

Existing LWS will be subject to periodic reviews. At notification, a suitable date for review will be recommended; this will not be the same for all sites. For example, marginal or vulnerable sites may need to be reviewed after 3 to 5 years, whereas well-established sites or robust habitats like woodlands may not need review until after 10 to 15 years.

The review target date is a guideline only. A site will continue to be regarded as a LWS even if the recommended review date has passed.

A review of an existing LWS follows the same procedure as for a new proposal. The supporting information should summarise any substantive changes since the original notification.

If a site is known to have suffered a serious loss of interest which is not recoverable through time, restoration, re-creation or beneficial management (such as permanent loss to building development), then it could be reviewed before its recommended review is due; but in most cases, this should not happen until the agreed review date is reached.

9 De-notification

Sites that, on review, no longer meet the selection criteria will be de-notified. The procedure is similar to that for notification. A consensus of the Panel should be reached, the reasons for de-notification must be clearly stated, and the original proposer, the landowner, occupier or manager and the local planning authority will be informed within one month of the decision.

10 Public availability

LWS notification forms and supporting information will be made available to the public on request at the offices of the Panel members. The notes of the meetings of the LWS Review Panel will also be available for public scrutiny at Leicestershire County Council. Some items of sensitive information (such as locations of rare and protected species, addresses of owners etc.) may not be publicly available.

11 Review of criteria

The Panel will review the criteria every five years. The next review is due to start in 2016.

Summary: Procedure for Identifying LWS

- 1 Discuss proposed LWS informally with a member(s) of the LWS Review Panel; enlist help if necessary.
- 2 Complete Draft Notification Form, non-technical summary and site description and collate supporting information; check that critical species have been verified; inform landowner, occupier or manager where possible.
- 3 Check date of next Panel meeting; submit form and information to the Chair at least one month before that date.
- 4 The proposal is accepted - go to step 7.
OR
The proposal is rejected.
OR
Additional information is needed - go to next step.
- 5 Collect additional information with the assistance of Panel members, if appropriate, and send to Chair.
- 6 Proposal is accepted either at a further Panel meeting or at the discretion of the Chair - go to next step.
OR
The proposal is rejected.
- 7 The LWS Review Panel informs the relevant planning authority of the LWS notification.
- 8 The LWS Review Panel informs the landowner, occupier or manager.
- 9 The LWS notification form and supporting information is made available for public scrutiny with safeguards for protecting the confidentiality of sensitive information.
- 10 The LWS is reviewed by the Panel.

Summary: Roles and Responsibilities of the LWS Review Panel

- 1 Comprises ecological experts from Natural England, Leicestershire and Rutland Wildlife Trust, Leicestershire County Council Historic and Natural Environment Team, Leicester City Council, Rutland County Council, Oadby and Wigston Borough Council and Charnwood Borough Council.
- 2 Meets once or twice a year in March and/or October.
- 3 Advises other organisations and individuals who want to propose LWS, especially on the interpretation of the criteria, in order to establish that the required information is available for a proper decision.
- 4 Achieves a consensus decision on proposed LWS.
- 5 Requests additional information if necessary.
- 6 Prepares the notification documents - a standard form, a map and supporting information - and notifies the relevant planning authority.
- 7 Prepares non-technical advice on the purpose and status of LWS to inform landowners, occupiers and managers.
- 8 Prepares non-technical summaries and site descriptions for landowners, occupiers and managers.
- 9 Explains the reasons for rejection of proposals.
- 10 Reviews existing LWS.
- 11 De-notifies LWS that fail on review, and informs the planning authority, landowner, occupier or manager and the originator of the LWS proposal of the decision.
- 12 Reviews the LWS criteria.
- 13 Requests that LWS are shown on Development Plans and monitors the effectiveness of this.
- 14 The responsibilities of the Chair are to arrange annual meetings, minute taking and the distribution of the papers, to encourage consensus, and to use discretion to decide if any requested additional information is acceptable.

Leicester, Leicestershire and Rutland

Site name:			DRAFT/FINAL Local authority:
Notification of Local Wildlife Site (previously SINC)			Ref no.:
Grid ref.	Date of original notification:	Date of present notification:	Form completed by:
Areas of consideration used in notification <i>(sites only need to meet the criteria within one area of consideration, but tick all those met)</i>		Site area: <i>(hectares)</i>	Landowner consulted?
1	Habitat quality		Main habitats:
2	Habitat diversity		
3	Presence of Red Data Book species		
4	Significant assemblages of species		
5	Use by communities		
Rationale for notification <i>(List reasons for ticking each of the above)</i>			
Site description and notes			
<ul style="list-style-type: none"> • evidence of current/past management, management suggestions, threats • general condition: Good, Reasonable, Poor, Improving/Declining/Unchanging 			
Recommended review period			
Additional information			
<input type="checkbox"/>	Continuation sheet?		
			Form amended by ST, 2009

Continuation sheet ()

<i>Site name</i>	<i>Ref. No</i>
<i>Rationale continued:</i>	

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