

Leicester, Leicestershire and Rutland

Habitat Survey and Local Wildlife Site assessment protocol

Leicestershire and Rutland Environmental Records Centre (LRERC)

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1. When is a habitat survey and Local Wildlife Site assessment needed?

It is likely that a habitat survey and Local Wildlife Site (LWS) assessment will need to be provided in support of a planning application in the following circumstances:

- The development will affect a designated site of known biodiversity value: e.g. a Local Wildlife Site (LWS), candidate/potential LWS, Local Nature Reserve (LNR) or Site of Special Scientific Interest (SSSI);
- The development will affect a site known to support a local or UK Biodiversity Action Plan (LBAP or UKBAP) priority habitat;
- The development will affect a site that is known to have had biodiversity value in the past, and appears from aerial photographs to be unchanged;
- The development is of such scale that it will impact on a large area of currently open land, including 'brownfield' land, previously developed and post-industrial land, farmland and public open space;
- Analysis of aerial photographs indicate that there is a strong possibility that the development will affect a site that supports a local or UK a Biodiversity Action Plan priority habitat;
- Analysis of desk study or survey data indicates that there is a strong possibility that the development will affect a site that supports a local or UK a Biodiversity Action Plan priority habitat, or a site that meets the Local Wildlife Site criteria

2. What is a Phase 1 Habitat Survey?

The survey must follow national guidelines for a Phase 1 Habitat Survey (2010 edition), available from the JNCC (<http://jncc.defra.gov.uk/page-2468>).

Note that these guidelines require the survey to be done between late March and mid October; surveys done outside these times are likely to be invalid and will not be accepted.

The technique involves visiting every parcel of land (as far as this is possible) and mapping the vegetation types according to standard habitat codes. There are three end products of a survey, which must be submitted:

- A habitat map, on a standard OS base map
- A set of descriptive 'Target notes' keyed to the map. The Guidelines say: 'Target notes are an essential part of Phase 1 survey and may provide the basis for selection of sites for Phase 2 survey and for decision-making . . .' See 3.4 below, and Appendix 1, for more on this.
- Statistics on the extent and distribution of each habitat type.

The term 'Extended Phase 1 survey' is often used to describe a survey that includes detailed 'Target notes'.

Data will be extracted from the survey report to add to the Sites and Species databases held by LRERC.

3. How long is a Phase 1 survey valid for?

In the case of habitat descriptions and assessment of species-rich, semi-improved and unimproved grasslands, ruderal and early successional communities and wetland, surveys last 5 years; for hedges, woodlands and scrub, 10 years.

4. What is a Local Wildlife Site assessment?

Local Wildlife Sites and candidate 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 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. The criteria used for identifying these sites are closely linked to the priority habitats listed in the BAP.

Sites and habitats recorded as part of the Phase 1 Survey should be assessed against the LWS criteria, to see if they meet the standard or are likely to meet it. The LWS criteria should therefore be borne in mind when conducting the Phase 1 survey - especially when making Target notes, as it is the information contained in the Target notes that will be used as evidence for the site meeting LWS standard.

3. Conducting the survey – good practice

3.1 Background

- A habitat survey should be done by an experienced ecologist with a good knowledge of field botany. The Botanical Society for the British Isles (BSBI) recommend that the minimum Field Identification Skills Certificate (FISC) level for a person conducting a Phase 1 Survey is Level 3, and the minimum level for a consultant is Level 4. LRERC recommend that all Phase 1 surveys are supervised by a FISC level 4 botanist.
See http://www.bsbi.org.uk/field_skills.html
- An understanding of the local and national distribution of habitat types and plant species is essential.
- The field survey should be backed up by desk study data obtained from the local Environmental Records Centre, the local authority's in-house ecologist, the local Wildlife Trust or specialist naturalist groups.
- Scientific names of plants must always be used; English names are optional.

3.2 Mapping: general points

- It is helpful to refer to current aerial photographs when mapping habitat extent or pinpointing target notes.
- The extent of areas that have been assessed from aerial photographs and not from field survey should be clearly distinguished.
- The extent of areas that could not be surveyed in the field or assessed from aerial photographs should be clearly indicated.
- The extent of each habitat should be clearly shown with a boundary line, and not just indicated by a symbol on the map.
- Individual land parcels (e.g. fields) must be mapped separately and given an individual habitat code and (if appropriate) target note on the map.

3.3 Mapping and surveying: grasslands

- It is not possible to distinguish some grassland types from field survey between mid October and late March, or from aerial photos: especially unimproved grassland, species-poor semi-improved and species-rich semi-improved grasslands.

- Unimproved grasslands and semi-improved grasslands cannot be surveyed properly between mid October and late March; return surveys will be needed if the main survey is done between these dates.
- Grasslands showing 'ridge and furrow' should be mapped as semi-improved. Field survey is needed to establish whether they are species-rich or species-poor.
- Semi-improved grassland should be assessed as either 'species-rich' or 'species-poor'; the assessment should be based on local criteria for what constitutes a 'poor' or 'rich' habitat.
- Grasslands that contain at least 7 of the Leicester, Leicestershire and Rutland Local Wildlife Site grassland indicator species should be classed as 'species-rich'.

3.4 Target notes: features and habitats that should be noted (see example in Appendix 1)

Target notes are the most important part of the Survey; making good Target notes when surveying will save time and re-visits later.

- Veteran trees: species and girth/diameter, with a note of whether estimated or measured.
- Species-rich hedgerows: species and estimated average number per 30m
- Species-rich grasslands: LWS indicator species; notable species; ridge and furrow
- Ponds, rivers, streams and wetlands: list of LWS indicator species and features
- Woodlands: Ancient woodland Indicator species
- Plants: Colonies of nationally and locally rare plant species (ref: M Jeeves)
- Badgers: Location of setts and other evidence
- Bats: any trees with 'bat potential'
- Other species: observations of UKBAP species, Red Data Book species, protected species or other notable species.

References

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2. BSBI. 2007. *The Botanical Field Skills Pyramid*. http://www.bsbi.org.uk/field_skills.html
3. LL&R LWS Panel. 2011. *Guidelines for the selection of Local Wildlife Sites in Leicester, Leicestershire and Rutland (revised 2011)*. Leicestershire County Council <http://www.leics.gov.uk/index/environment/naturalenvironment/ecology.htm>
4. JNCC. *UK Biodiversity Action Plan* <http://jncc.defra.gov.uk/page-5155>
5. LL&R BAP Working Group 1998. *Biodiversity Challenge: an Action Plan for Leicester, Leicestershire and Rutland* <http://www.lrwat.org.uk/what-we-do/biodiversity-action-plan/>
6. Jeeves, M. 2011. *The Flora of Leicestershire and Rutland: checklist and Rare Plant Register*. LRWT.
7. Primavesi A.L & Evans P.A. 1988. *Flora of Leicestershire*. Leicestershire County Council
8. Messenger, G. 1971. *Flora of Rutland*. Leicester museums
9. Stace C.A. 2010. *New Flora of the British Isles (3rd edition)*. Cambridge

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Appendix 1: Presenting the results: target notes

EXAMPLE DATA only

Target note No	* **Grid reference	Description	Species	Potential LWS? (Y/N)	Date	Surveyor
1	SK123456	Species-rich semi-improved grassland; over-grazed by ponies and with R+F. Richest in SE corner of field sloping down to pond (see TN2).	<i>Lathyrus pratensis</i> , <i>Lotus corniculatus</i> , <i>Luzula campestris</i> , <i>Centaurea nigra</i> , <i>Plantago media</i> , <i>Trifolium pratense</i> , <i>Ranunculus acris</i> , <i>Galium verum</i> , <i>Alchemilla</i> sp.	Y	01/08/2011	Sue Timms
2	SK124567	Pond in field corner, shaded by Salix scrub along south and east sides	<i>Potamogeton natans</i>	Y	01/08/2011	Sue Timms
3	*SK123456789	Veteran tree in hedgerow (see TN4); est. >4m girth at breast height, with major branch cavity. Bat potential	<i>Quercus robur</i>	Y	01/08/2011	Sue Timms
4	**SK123456 – SK123789	Species rich hedgerow, 120 m long; average 5-6 spp/30m; bank and ditch; 4 standard oaks, one a veteran (see TN3)	<i>Crataegus monogyna</i> , <i>Prunus spinosa</i> , <i>Cornus sanguinea</i> , <i>Corylus avellana</i> , <i>Acer campestre</i> , <i>Quercus robur</i> , <i>Sambucus nigra</i> , <i>Rhamnus catharticus</i> (rare)	Y	01/08/2011	Sue Timms
5	*SK123678901	Colony of c.20 Southern Marsh Orchids on fairly species-rich roadside verge.	<i>Dactylorhiza praetermissa</i> , <i>Trifolium pratense</i> , <i>Ranunculus acris</i> , <i>Galium verum</i> , <i>Lotus corniculatus</i>	N	03/08/2011	Sue Timms
6	SK12457890	Main Badger sett at edge of spinney; 6 hole	Badger	N	03/08/2011	Sue Timms
7	**SK124578 to SK135689	Section of small stream (250m) fringed by Alder and <i>Salix</i> sp.; with pools and riffles and exposed tree roots	Bullhead	Y	03/08/2011	Sue Timms
8	SK122789	Yellowhammer in roadside hedge	Yellowhammer	N	03/08/2011	Sue Timms

*8-fig reference needed for veteran trees and other point locations.

**range needed for linear features