Biodiversity in Leicester
Supplementary Planning Guidance

CONTENTS

chapter ***page***

Executive Summary

1. Introduction **4**

The purpose and structure of the Supplementary Planning Guidance
What is biodiversity and why should we conserve it?
Leicester's role in biodiversity conservation
The biodiversity network and strategic wildlife corridors
Planning for biodiversity

2 Nature conservation sites **7**

Nature conservation site designation
Sites of Special Scientific Interest (SSSIs)
Sites of Importance for Nature Conservation (SINCs)
Local Nature Reserves (LNRs)
Biodiversity Enhancement Sites (BESs)

3 Species **11**

Protected species
Table 1 : Protected species recorded from Leicester
Species listed in the local Biodiversity Action Plan and the local Red Data Books
The need for protection through the planning system
Timing of surveys

4 Habitats **15**

Hedgerows
Mature Trees
Standing dead-wood habitats
Species-rich grassland
Floodplain wetlands and other wetland habitats
Woodlands and spinneys

5 Enhancement of the biodiversity network through planning conditions and agreements **19**
Enhancement of biodiversity network
Avoiding and minimising damage

Compensation
Habitat 'translocation'
Site groups for enhancement, mitigation or compensation
Table 2: Groups of sites in the biodiversity network

6 Monitoring and Review 22

7 Consultation 23

***References* 24**

APPENDICES

1 The planning context for biodiversity 25
Regional Planning Guidance policies
Leicester, Leicestershire and Rutland Structure Plan policies
Replacement City of Leicester Local Plan (deposit draft) policies

2 Background to Local, Regional and National biodiversity policies and action plans 30
The National context
The Regional context
The Leicester, Leicestershire and Rutland Biodiversity Action Plan process
The Biodiversity Audit, Inventory of Key Species and local Red Data books
Biodiversity Challenge: an Action Plan for Leicester, Leicestershire and Rutland
A Strategic Overview of Biodiversity Issues in Leicester, Leicestershire and Rutland

3 Strategic Wildlife Corridors 32

4 Criteria for the selection of SINCs in Leicester, Leicestershire and Rutland 36

5 Sites of Importance for Nature Conservation in Leicester 52

6 Biodiversity Enhancement Sites in Leicester 53

7 Opportunities for enhancement of the biodiversity network 55

Executive Summary

This Supplementary Planning Guidance explains why biodiversity is important to Leicester and to the people who live and work in the City, and describes the role that planning process can play in protecting and enhancing the natural resources and strategic biodiversity network of the City. It sets out information to guide the implementation of the nature conservation polices in the Replacement City of Leicester Local Plan, and describes the rationale for these policies.

The document is in two parts. The first part *(*Chapters 1 - 5) covers the protection and enhancement of important sites, species and habitats within the City. The second and larger part, printed on green paper, consists of Appendices which provide the underpinning local and regional context for this guidance.

Chapter 2 considers the protection and enhancement of designated nature conservation sites. National statutory designations (*Sites of Special Scientific Interest - SSSIs)* and local non-statutory designations (*Sites of Importance for Nature Conservation, Local Nature Reserves, Biodiversity Enhancement Sites - SINCs, LNRs and BESs*) are described, and the relative importance and purpose of these designations is summarised.

In Chapter 3, consideration is given to the conservation of protected species and other species of importance. A summary of the legal status and basic survey requirements for the main protected species found in the City is given (*Great Crested Newt, Bats, Badger, Water vole, Kingfisher, Little Ringed Plover* and all wild birds).

Chapter 4 provides information on the conservation and potential for enhancement of important wildlife habitats within the City (*hedgerows, mature trees, standing dead-wood habitats, wetlands, woodlands and spinneys)*.

Details of the nature of developer obligations that may be required for developments which affect the above sites, species and habitats are given in Chapter 5. The hierarchic approach of *avoidance of harm: mitigation: compensation* is set out. To assist in the siting and scope of any mitigation, compensation and enhancement, nature conservation sites within the City are grouped into clusters of similar sites. Further guidance on the potential for enhancing biodiversity within these site clusters is given in *Appendix 7*.

The remaining Appendices provide background information on the local and regional planning context related to biodiversity. The Biodiversity Action Planning process in Leicester, Leicestershire and Rutland, which underpins this guidance, is described, and further information is given on the role and function and Strategic Wildlife Corridors. The criteria for identifying the SINCs in City are given together with a list of designated SINCs and BESs.

Chapter 1 : Introduction

The purpose and structure of this Supplementary Planning Guidance

1.1 The purpose of this document and its appendices is to provide planning guidance in implementing the biodiversity and nature conservation policies within the *City of Leicester Local Plan* and the *Leicester, Leicestershire and Rutland Structure Plan*. It explains the importance of the policies that deal with the conservation of sites, habitats and species of biodiversity value (*Chapters 2, 3* and *4*). In *Chapter 5* and *Appendix 7* guidance is given on the nature and scope of planning conditions and agreements that can bring about enhancement and protection of Leicester's biodiversity network.

1.2 The Local Plan and Structure Plan policies and some background information on the national, regional and local biodiversity action plan processes and supporting documents are given in *Appendices 1, 2* and *3* of this planning guidance.

1.3 Also included in *Appendix 4* as part of this Supplementary Planning Guidance are the criteria used to select Sites of Importance for Nature Conservation (SINCs) in Leicester, Leicestershire and Rutland. Finally, Leicester's SINCs are listed in *Appendix 5*, and the supporting Biodiversity Enhancements Sites (BESs) in *Appendix 6.*

1.4 It is intended that this guidance be subject to consultation and Council approval and be formally adopted as Supplementary Planning Guidance to the City of Leicester Local Plan.

1.5 This document will complement other supplementary planning guidance on Trees and Open Space produced by the City Council.

What is biodiversity and why should we conserve it in Leicester?

1.4 'Biodiversity' is a word that has become common usage after the 'Earth Summit' held in Rio in 1992. It simply means the variety of life on Earth. It includes common as well as rare species, genetic diversity within a species, and the habitats in which species live.

1.5 The underlying reasons why we should conserve biodiversity in the City include a moral obligation, aesthetic and cultural purposes, good stewardship, benefit to society, commercial gain and economic value.

We should hand on to the next generation an environment no less rich than the one we ourselves inherited

Contact with wildlife and natural places helps to reduce and ameliorate the stresses of living in an urban area

Wildlife and natural places enrich our lives; artists have been inspired by the nature around them

Natural processes can help to protect our city from the risk of flood damage, pollution, climate change, etc.

A high quality natural environment can help to bring about economic regeneration

It is sustainable - wildlife 'on the doorstep' means that people who live in the city can visit, enjoy and learn about natural places close to home, without the need to travel

Loss of biodiversity in the countryside due to agricultural management, development and pollution means that the relative significance of urban biodiversity has increased

Natural and accessible open spaces are important for our health and wellbeing, and can help promote a sense of community through voluntary work and local ownership

Leicester's role in biodiversity conservation

1.6 Conserving and improving biodiversity on a global scale relies on the sum of many small local actions on a local scale. We can all *'think global, act local'* and contribute to the bigger picture. Through City Council policies and procedures, such as those related to the planning process, we can help to protect and enhance the biodiversity of Leicester. This impacts on the biodiversity of our county and region, and ultimately on that of the UK and our planet.

The biodiversity network and strategic wildlife corridors

1.7 To protect and enhance biodiversity in Leicester, we need to know where the best sites and habitats are (the *Sites of Special Scientific Interest* and *Sites of Importance for Nature Conservation*) and where improvements for wildlife could best be targetted (the *Biodiversity Enhancement Sites*). Together, these sites make up Leicester's biodiversity network. *Chapters 2* and *4* deal with these designated sites and habitats in more detail.

1.8 The frame of the biodiversity network is formed by the strategic wildlife corridors of the River Soar and the Grand Union Canal, the Great Central Railway, the Rothley Brook and the Mainline and Ivanhoe Railways. They connect the green spaces and wildlife sites in the heart of urban Leicester to the wider countryside around the city. In order to maintain the connectivity and integrity of the whole network, these sites are especially

important for Leicester's biodiversity. Some general principles for conservation and enhancement of these corridors is set out in *Appendix 3.*

1.9 Wildlife corridors are linear, naturally vegetated and physically connected sites which link wildlife habitats along their length. They form the backbone of a network of connected habitats, reduce the risk of habitat fragmentation and population isolation, and allow species to disperse freely in response to environmental change or population expansion. Strategic wildlife corridors are particularly important in the context of climate change. It is likely that in the future the geographical range of certain species may change. Wildlife corridors such as rivers and railways will then provide a means of dispersal.

Planning for Biodiversity

1.10 The planning process can help to conserve and enhance Leicester's biodiversity in two main ways. Firstly, the best sites (SSSIs and SINCs) are shown on the Proposals Map of the Local Plan, and there are policies within the Local Plan which will protect these sites, plus important habitats and species, from damage due to development. Secondly, the use of planning conditions and obligations, often in mitigation and compensation for development, can be used in a variety of ways to improve existing sites, wildlife corridors and habitats, create new ones, or offset losses in biodiversity caused by development. Further guidance on this is given in *Chapter 5*.

Chapter 2 : Nature conservation sites

Nature conservation site designation

2.1 It is important to identify the most important sites for nature conservation, so that the planning system can protect them as fully as possible, and establish the relative importance of the sites. There is a recognised hierarchy of different levels of site designation at the international, national and local scale, with sites of international value being the most important and given the highest level of statutory protection. Nationally important Sites of Special Scientific Interest (SSSIs) also have statutory protection, but locally important Sites of Importance for Nature Conservation (SINCs) have no statutory protection. Local Nature Reserves are of local importance and are designated under different legislation which does not confer statutory protection from development.

Sites of Special Scientific Interest

2.2 Within Leicester, there are no sites deemed to be of international importance, and there is only one SSSI (Gypsy Lane claypit), which is designated for its geological importance. Sites of Special Scientific Interest (SSSIs) are designated by English Nature. They receive statutory protection under the provisions of the *Wildlife & Countryside Act 1981,* as amended by the *Countryside and Rights of Way Act 2000*, which has provided a statutory underpinning for conserving biodiversity in accordance with the European Convention on Biological Diversity. The *CROW Act* also places duties on public bodies, including Local Authorities, in exercising their functions to take reasonable steps to further the conservation and enhancement of the special features of SSSIs.

Sites of Importance for Nature Conservation

2.3 Sites of local importance are referred to as Local Wildlife Sites or Sites of Importance for Nature Conservation (SINCs). They do not have any statutory protection but can be protected through the planning system, in accordance with national planning policy guidance (PPG9). Selection of these sites is a matter for local nature conservation organisations and local authorities, and *Guidelines for the selection of SINCs or Wildlife Sites* have been published for Leicester, Leicestershire and Rutland. They are included within this document as *Appendix 4*.

2.4 There are at present 30 designated SINCs in Leicester, shown on the Biodiversity Proposals Map in the *City of Leicester Replacement Local Plan (deposit draft October 2001*). They are the most important places for wildlife in the City, and are defined within the guidelines for selecting SINCs or Wildlife Sites as:

'. . . important reservoirs of rare, local and declining native species and the best examples of typical Leicester, Leicestershire and Rutland habitats. SINCs 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.'

2.5 The criteria used in notifying SINCs in the City are set out in the guidelines for selection. Whenever possible, quantitative criteria and threshold values have been used, to reduce the likelihood of a subjective assessment of value. The criteria are strictly applied; a site has to meet one of these criteria before it can become a SINC.

2.6 Each SINC within Leicester has a standard notification form which explains how the site meets the criteria. The notification documents also include a map showing the boundary and the location of important features and a non-technical site description which places the site in the local context and provides guidance for sustaining the site's biodiversity value into the future. A list of SINCs in Leicester, together with notification dates, is given in *Appendix 5*.

2.7 Protection and conservation of SINCs is an essential part of sustaining the biodiversity of Leicester. They include the sites and habitats which make up the 'Critical Natural Capital' for the City. Loss or damage to this resource would cause a certain decline in the biodiversity of Leicester.

Local Nature Reserves

2.8 Local Nature Reserves (LNRs) can be declared by Local Authorities in areas over which they have jurisdiction, using powers under Sections 19 and 21 of the *National Parks and Access to the Countryside Act (1949),* in consultation with English Nature. The power of de-declaration, should the land be required for other purposes, also rests with the Local Authority, again after consultation with English Nature.

2.9 LNRs are defined in the NPAC Act as being *'land managed for the purpose of providing . . . special opportunities for the study of . . . the flora and fauna of Great Britain and the physical conditions in which they live, and for the study of geological and physiographical features of special interest in the area; or of preserving flora, fauna, or geological and physiographical features of special interest; or for both of these purposes.'*

2.10 Ideas have changed a little since then, and English Nature now recognise that one of the main function of LNRs is the opportunity they give people to become involved in practical nature conservation work and in caring for wildlife and their local environment.

Biodiversity Enhancement Sites (BESs)

2.11 SINCs provide the cornerstone and focus for sustaining biodiversity. However, many of these designated sites are isolated within areas of low biodiversity. Many contain fragmented habitats of small and vulnerable populations of species and communities. Conservation and improvement of land outside these designated areas is necessary to ensure that the area's biodiversity is sustained, enhanced and buffered from harm. The role of 'stepping stone' habitats and wildlife corridors is particularly important in this context.

2.12 Biodiversity Enhancement Sites (BESs) have been designated in Leicester to fulfil this requirement, to join up the gaps between SINCs, and to provide a mechanism for strengthening wildlife corridors. They are also shown on the Biodiversity Proposals Map of the *City of Leicester Replacement Local Plan (Deposit draft Oct 2001)*. The policy that applies to BESs is not intended to prevent development, but to ensure that strategic and intrinsic biodiversity significance of the site is taken into account in determining planning applications. BESs are the sites towards which enhancement in biodiversity value should be targeted, often through planning conditions and agreements.

2.13 Biodiversity Enhancements Sites (BESs) are designated under one or more of three criteria:

> *Sites that have nature conservation value at present but are not up to the standard of SINCs, but which have potential for improvement to that quality.*
>
> *Open land of little existing wildlife value, but which has an important place in a wildlife corridor or green network.*
>
> *Built or derelict land of little wildlife value but occupying an important position in a wildlife corridor or green network.*

2.14 There are 98 individual sites or closely related site clusters which have been designated as BESs in Leicester. A list, together with a note of the criteria used in designating each, is given in *Appendix 6*.

Relevant Replacement Local Plan policies *(2nd deposit draft 2003):*

GE01 Sites of Special Scientific Interest

Development will not be permitted if it adversely affects Sites of Special Scientific Interest unless an over-riding national need for the development can be shown to outweigh the sites' ecological interest and there are no alternative sites available for the development.

GE02 Sites of Importance for Nature Conservation, Local Nature Reserves and Regionally Important Geological Sites

Development will not be permitted where it would adversely affects Sites of Importance for Nature Conservation, Local Nature Reserves and Regionally Important Geological Sites unless an over-riding national or local need of strategic importance can be shown to outweigh the sites' ecological interest. In such exceptional cases planning conditions will be imposed to mitigate the impact of the development on the ecological or geological features of the site.

GE03 Biodiversity Enhancement Sites

Development on a Biodiversity Enhancement Site will be permitted if the strategic nature conservation value is maintained or enhanced. Opportunities will be sought through the planning process to enhance the biodiversity of the site, of adjacent sites or of the green network to which it relates.

Chapter 3 : Species

Protected Species

3.1 Some species are so rare, vulnerable or threatened that they need special protection and action in order to sustain their populations. Some of these species are in such decline that they have special protection, usually under the Wildlife and Countryside Act, 1981, now amended by the Countryside and Rights of Way Act 2000. Some species are in international decline and are given extra protection under EC legislation. Other species are regionally or locally threatened, and have been identified as priority species for conservation action in the local BAP for our region, or have been listed in national or local Red Data Books as rare, declining or otherwise threatened.

3.2 Legally protected species which are frequently recorded from Leicester are given in Table 1. In addition, Table 1 includes other protected species which have occurred in Leicester in the past, or are considered likely to be present in the future, namely Otter, Black Redstart, White-clawed Crayfish and Barn Owl. It should be noted that additional protected species to those in Table 1 may occur in Leicester in the future.

3.3 Badgers are a special case, being covered by their own Protection of Badgers Act 1992. The legislation that protects them is not primarily for their conservation but is mainly concerned with their welfare.

3.4 Intentionally (and in some cases recklessly) harming protected species and/or their habitats is a criminal offence which carries a heavy fine. Sentences of up to six months imprisonment have been given for badger offences. Consulting the Department for the Environment, Food and Rural Affairs (DEFRA) and/or English Nature on developments that might affect some protected species is a legal requirement.

Table 1: Protected species in Leicester

SPECIES	***ACT(s)***	***SECTION etc.***	***MAIN IMPLICATIONS***
Great Crested Newt	*W&CA* *CROW* *Euro HD*	*S9 (1) - (4); Sch 5* *S12.5* *Art12; Ann.IVa*	Illegal to intentionally or recklessly take, harm or disturb animals; or to damage, destroy or obstruct access to shelter. This includes terrestrial habitat around pond - up to c.500m
Bats - all species	*W&CA* *CROW* *Euro HD*	*S9 (1) - (4); Sch 5* *S12.5* *Art12; Ann.IVa*	Illegal to intentionally or recklessly take, harm or disturb animals; or to damage, destroy or obstruct access to roost. Does not necessarily include foraging habitat
Badgers	*Protection of Badgers Act 1992*	*throughout*	Illegal to intentionally kill, injure or take animals or try to do so, to dig for a badger, to intentionally or recklessly

			cause a dog to enter a sett, or to damage, destroy or obstruct a sett, or to disturb a badger occupying a sett. 30m 'exclusion zone' around sett often applied. Does not necessarily include foraging habitat.
Water Vole	*W&CA* *CROW*	*S9(4); Sch 5* *S12.5*	Illegal to intentionally or recklessly disturb animals in shelters, or to damage, destroy or obstruct access to shelter. Does not include foraging habitat.
Otter	*W&CA* *CROW* *Euro HD*	*S9 (1) - (4); Sch 5* *S12.5* *Art12; Ann.IVa*	Illegal to intentionally or recklessly take, harm or disturb animals; or to damage, destroy or obstruct access to shelter. Does not necessarily include foraging habitat
all wild birds, their nests and eggs	*W&CA*	*S1*	Illegal to intentionally kill, injure or take a wild bird, or to destroy or take its nest or eggs. Avoid bird nesting season (end Feb to end July) for site clearance, scrub removal etc.
Kingfisher	*W&CA* *CROW*	*S1 (4) (5); Sch 1* *Sch 12 .1*	In addition to above, illegal to disturb adult whilst building nest, on nest or near to nest, eggs or young; or to disturb young.
Little Ringed Plover	*W&CA* *CROW*	*S1 (4) (5); Sch 1* *Sch 12 .1*	In addition to above, illegal to disturb adult whilst building nest, on nest or near to nest, eggs or young; or to disturb young.
Barn Owl	*W&CA* *CROW*	*S1 (4) (5); Sch 1* *Sch 12 .1*	In addition to above, illegal to disturb adult whilst building nest, on nest or near to nest, eggs or young; or to disturb young.
Black Redstart	*W&CA* *CROW*	*S1 (4) (5); Sch 1* *Sch 12 .1*	In addition to above, illegal to disturb adult whilst building nest, on nest or near to nest, eggs or young; or to disturb young.
White-clawed Crayfish	*W&CA* *Euro HD*	*S9* *Sch 5* *Ann. II & V*	Illegal to take from the wild or sell without a licence
Bluebell	*W&CA*	*S13 (2)* *Sch 8*	Prohibition on the sale of plants taken from the wild

WCA *Wildlife and Countryside Act 1981*
CROW *Countryside and Rights of Way Act 2000*
Euro HD *EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive)*

Note: the main implications of legislation are summaries given for guidance only. The Acts and the Directive should be referred to if necessary.

Species listed in the local Biodiversity Action Plan and the local Red Data Books

3.5 Target species for priority action in the local BAP are included in *Appendix 2*. Many of these are also given full legal protection. Of the rest, and apart from Sand Martin, it is unlikely (but not impossible) that these species will be recorded in Leicester.

3.6 Local Red Data books are produced by conservation experts working on certain critical groups of species within Leicester, Leicestershire and Rutland, and are co-ordinated by Leicestershire Museums Service. They list species considered to be in decline, rare or threatened within the area. Many of these species are also nationally rare, and are listed in the national Red Data Books co-ordinated by the UK's Joint Nature Conservation Committee. Local Red Data Books on the following groups of species have been prepared so far: Beetles, Butterflies and Moths, Vascular Plants, Bryophytes, Birds, and Mammals, Fish, Reptiles and Amphibia.

The need for protection through the planning system

3.7 Whilst many species will be protected from harm by the fact that their habitats - the places in which they live - are designated as SINCs, etc., some species that are rare, threatened or otherwise vulnerable to harm are often found in places that are difficult to protect. For example, Bats are frequently found in the roofspaces of domestic dwellings or old industrial buildings, and Little Ringed Plovers can nest on derelict wasteland. Badgers commonly use back gardens. Other species range a long way from their 'core' habitat, and it impossible to designate as SINCs all the separate places that the species needs to survive - especially as these places vary with the season. For example; Badgers can range along their foraging routes for two kilometres or more from their home, or sett; and Great Crested Newts have been found 500 metres or more from their breeding pond.

3.8 Legal protection does not always extend to the foraging habitats of animals. This means that there is a risk that species could be left isolated or trapped in the middle of a development with nowhere to feed and no access to water. One purpose of the Species Policy in the Local Plan is to ensure that this does not happen. In addition to retention of the homes or shelters of these species of concern, developers may be obliged to retain and enhance foraging areas or routes or carry out other provisions that conserve the species.

Timing of surveys

3.9 Early consultation with specialists is needed for developments that might affect protected species. If it is known that protected species are present, or there is a strong likelihood that they are present, survey information will be

required along with the planning application. The application will not be determined until appropriate surveys have been done. Surveys for some species can only be done at certain times of the year. Avoidance of harm, mitigation or compensatory conditions required can restrict the timing, phasing and working method of certain operations. This can delay, constrain or prevent developments.

3.10 A rough guide to survey times, and to the least harmful time of year to do work that could affect protected species, is given below. However, conditions and circumstances vary, and DEFRA/EN's approval and licence for works is always needed.

Bats: To detect summer roosts**,** several visits are needed between April and September. It is very difficult to do surveys for bats during winter, when they are hibernating. Often work that could affect them is best done in August/September, when they have finished rearing young but are not yet hibernating.

Badgers: Surveys should be done in early spring, late autumn and winter, when there is little vegetation to obscure signs of badgers. It is best to do several visits throughout year because badgers' feeding areas vary with the season and food availability. Work that could disturb them between Nov-June is unlikely to be licensed.

Great Crested Newts: Several visits between March and June are needed to determine presence or absence. EN should be contacted for approved methodology - but a pond-dipping search or torch survey is not adequate. Works in newt habitats outside pond are likely to be restricted the spawning season - April/May. Works to ponds are likely to be restricted to the hibernating season - winter

Breeding Birds: A minimum of three early morning visits from mid-April to end-June is required, using BBS or CBC techniques, or species-specific survey. Guidance on specific monitoring techniques for all species and groups of species (e.g. waterfowl) is available from the RSPB.

Relevant Replacement Local Plan policy *(2nd deposit draft 2003):*

GE04 Protected Species

Development will only be acceptable where it would not harm or damage the habitat on which a protected species relies, unless an over-riding interest can be proven and there are no alternative solutions available. Where an over-riding need for the development is demonstrated, the City Council will impose conditions on the planning permission or enter into planning obligations to:

* *facilitate the survival of individual members of species*
* *reduce disturbance to a minimum*
* *provide adequate alternative habitats to sustain at least the current levels of population of the species.*

Chapter 4 : Habitats

Important wildlife habitats

4.1 Whilst many important wildlife habitats will be designated as SINCs or BESs, some habitats occur outside these designated areas. Often these habitats are in areas of low overall wildlife value such as arable land or close-mown amenity grassland. They may be the only chance for some species to live in that area, so their protection and conservation is important for the biodiversity of the whole City.

4.2 These habitats are hedgerows, mature or veteran trees, standing dead wood habitats, species-rich grassland, floodplain wetlands and other wetland habitats, and woodlands and spinneys.

4.3 Environmental Land Management Schemes such as Countryside Stewardship can fund the creation, sympathetic management and restoration of a wide variety of habitats including, hedgerows, grasslands, wetlands and woodlands. Further information is available from the Department for Environment, Food and Rural Affairs (DEFRA).

Hedgerows

4.4 In areas with little woodland, many woodland species are dependant on hedges as a substitute habitat. Hedges often make local wildlife links between other habitats, and are particularly important if they have associated features such as ditches, banks, mature trees, deadwood habitats, pollarded trees and unimproved grassland verges. Laid and unlaid hedges are good for wildlife in different ways, and in order to provide some habitat diversity within a local area it is good to maintain hedges at various stages of management.

4.5 Most hedges in the farmed landscape are covered by the Hedgerow Regulations 1997. Landowners wishing to remove a hedge must apply to the Local Authority for consent. The Local Authority can issue a Hedgerow Retention Notice only if the hedge meets certain criteria relating to its archaeological or ecological importance. In practice, many hedges fail to meet these criteria and in these cases the Local Authority cannot stop the hedge being removed.

4.6 In residential and urban areas, very few hedges are covered by the Hedgerow Regulations and the most effective way of protecting hedges is through planning conditions applied to developments. As a planning condition, developers may be required to retain, improve, manage, replant or create hedgerows and their attendant features.

4.7 More information on and interpretation of the Regulations is given in the *Hedgerow Regulations 1997 : A guide to law and good practice* produced by the Department of the Environment.

Mature trees and standing dead-wood habitats

4.8 Many mature trees are threatened by development, pollution stress, vandalism and concerns over public safety. It is normal for healthy old trees to have some rotting or dead wood in their crown or trunk. This is usually referred to as 'standing dead wood' and is an important habitat for invertebrates, many species of which depend on it as a habitat. Holes or crevices are used as bat roosts or by hole-nesting birds such as tits and woodpeckers. Mosses, fungi, lichens and liverworts are also much commoner on mature trees, and the bark of old trees is the main habitat for some slow-growing species of moss and lichen. An old tree is of value even after it has died.

4.9 Fruit trees provide nectar in spring for invertebrates; niches in their rough bark for invertebrates; fruit for birds, invertebrates and mammals in autumn; and windfalls for birds such thrushes and finches all winter. Some may also be rare horticultural varieties. Old and well-established orchards are a valuable wildlife habitat, but are rare within Leicester and the rest of the County. Fruit trees are a feature of Leicester's gardens and allotment sites, and many of these sites have a similar habitat value to orchards.

4.10 Wherever possible, and as long as there is no conflict with public safety or amenity, mature trees and standing dead wood habitats should be retained. Rather than remove trees altogether, it is preferable to crown reduce or pollard trees in order to preserve at least some of the standing dead wood habitat.

4.11 Standing dead wood supports different species and is a different habitat to a dead wood habitat on the ground. Creating log piles and other dead wood habitats on the ground from standing dead wood can make an important contribution to overall biodiversity, but it should not be seen as a substitute for standing dead wood. It may be seen as some compensation for habitat loss, not mitigation (see 5.4 below).

Species-rich grassland

4.12 Grassland which has not received much agricultural or horticultural improvement is richer in species (both flora and fauna) than improved grassland. It is a declining and threatened habitat within the County. The habitat can be associated with post-industrial and derelict sites, with long-established farmland and grazing pasture, with recreational land such as parks and golf-course, with highway or railway verges, and with many other land-uses such as old allotments and covered reservoirs.

4.13 Grasslands formed on neutral and lime-rich soils are naturally richer in flora than those on acid soils, and this natural variation should be borne in mind when assessing whether the habitat is species-rich or not. The National

Vegetation Classification (NVC) provides useful background information, but many recent grasslands (especially on post-industrial sites) do not readily fit into the categories.

4.14 It is difficult to create successful species-rich grasslands. A recently seeded wildflower meadow will not support the invertebrate life of an established semi-natural grassland and is not a balanced ecosystem. The use of green hay, translocated turf or turf fragments spread onto low-nutrient soil may be more effective. However, all semi-natural fragments should be conserved, however small; they are potential reservoirs for the colonisation of new grassland habitats.

4.15 Natural regeneration of grasslands from bare ground may be preferable, if a nearby reservoir of species is available for colonisation of the site. Often naturally regenerated grasslands (such as those which often form on post industrial sites) are very rich ecosystems, especially if they are formed on nutrient poor sites with variations in substrate type, drainage, slope, aspect, soil pH and chemistry. Scraping off nutrient-rich topsoil (which trends to produce species-poor grasslands) and allowing grassland to develop naturally on exposed subsoil can be a successful technique for creating species-rich grasslands.

Floodplain wetlands and other wetland habitats

4.16 This includes ponds, pools, marsh, reedbed, flood-meadows, ditches, streams, and associated habitats.

4.17 Ponds in the countryside are being lost through neglect and infilling, and are threatened by pollution from agricultural chemicals, but ponds in urban areas often escape these threats and may be more value for wildlife. Many gardens contain ponds of value to wildlife. Ponds are particularly important for amphibia. To be of significant value, ponds need to be in association with other habitats of value, such as marshland, species-rich grasslands, hedges, spinneys, etc.

4.18 Pond and wetland habitats can often be created successfully. The requirement to provide sustainable drainage schemes within developments also makes an opportunity to create wetlands of value for biodiversity.

4.19 Leicester has a network of tributary brooks to the River Soar. They are potentially important wildlife corridors which often link other habitats together, but many have become fragmented by past channelling and culverting. Avoiding further loss and damage and restoring the brooks to a natural state will help to reinstate them as important wildlife habitats.

Woodlands and spinneys

4.20 Woodlands and spinneys are scarce habitats in Leicester. Most are recent plantations and are relics of former farmland or parkland, planted for timber, shelter or fox covert. Only one of Leicester's woodlands (Meynell's Gorse) may be of truly ancient origin (i.e. has been in existence since at least the year 1600 and is possibly descended from the native wildwood that colonised Britain after the last Ice Age), but all plantations are important for birds, mammals and invertebrates, as well as having value as landscape features.

4.21 The value of woodlands and spinneys to wildlife is increased by the presence of associated features such as glades, rides, ponds, streams, standing and fallen dead wood, ditches, banks and hedges.

4.22 As well as retaining woodlands and spinneys within development sites, developers may be required to manage and enhance existing woods, to plant new woodlands and extend existing ones.

Relevant Replacement Local Plan policy *(2nd deposit draft 2003):*

GE05 Wildlife Habitats

On site where development is to take place, design and layout must address the retention, incorporation, promotion and management of the following habitats:

a) hedgerows of predominantly native or naturalised species, including associated features such as ditches, banks, walls and the adjacent herbaceous grass margin;
b) mature trees
c) standing mature dead wood habitats
d) species-rich grassland
e) floodplain wetlands and other wetland habitats; and
f) woodlands and spinneys, included all associated vegetation and habitat features.

Chapter 5 : Enhancement of the biodiversity network through planning conditions and agreements

Enhancement of biodiversity network

5.1 The use and implementation of planning conditions and agreements is a mechanism for improving and protecting biodiversity in Leicester. Leicester's biodiversity network is fragmented and many habitats and species are isolated. Developers may be required to undertake or contribute to works necessary to enhance or protect the nature conservation value of the environment related to the development. This could include surveys, impact assessment and monitoring. It is also recognised that access to wildlife is an important quality of life requirement for many urban residents, so improving public access to and facilities within nature conservation sites may also be required.

5.2 Developer obligations may involve the following :

surveys of protected or locally scarce species

habitat creation, restoration or management

improvements in public access to and use or enjoyment of wildlife sites

improvements to the connectivity and robustness of wildlife corridors, especially at junctions of two corridors

improvement to habitat of significant species

establishment and monitoring of habitats

setting aside and preparing land for natural regeneration

Further information on the rationale for these actions is given in the preceding *Chapters 2, 3* and *4* of this document (*Nature Conservation Sites*, *Species Protection* and *Habitats*.)

5.3 For more information on this policy and for examples of planning obligations which will be sought, refer to *Chapter 12 : Implementation* and *Appendix 04* of the *Replacement City of Leicester Local Plan (2nd deposit draft 2003).*

Avoiding and minimising damage

5.4 Developers should in the first case seek to avoid or minimise harm. Where development takes place that unavoidably damages biodiversity, measures

should be taken to ensure that the total ecological resource remains at least at the current level. The following hierarchy of measures should be used to ameliorate the effects of development on biodiversity:

Avoidance not carrying out development within a sensitive area - for example through careful siting or by limiting extent of development

Mitigation reducing an unavoidable impact to a minimum, for example through the use of protective fencing or through phasing and timing of works

Compensation offsetting impacts which cannot be avoided by creating new habitats and/or by managing or restoring existing ones and/or by improving access and use of nature conservation sites

Compensation

5.5 In cases where compensatory measures are sought, it will not always be necessary to replace damaged or lost habitats with the same habitat, since in many cases this will not be feasible or desirable. The needs of biodiversity should indicate the kind of habitat that it is appropriate to create, restore or manage in compensation.

5.6 Compensatory habitats should be larger than the habitats they are replacing, because newly created habitats take time to establish and become of the same quality as the lost habitat. It is recommended that replacement habitats should be twice the size of the habitat they are replacing.

5.7 Compensatory habitats will also require establishment maintenance and aftercare.

Habitat 'translocation'

5.8 Habitat 'translocation' (i.e. moving a habitat to another site because is in the way of a development) is not an acceptable form of mitigation. There is no evidence that it succeeds, and the translocated habitat changes during the process to becomes a different habitat. However, if a habitat is irretrievably damaged or lost through development, it may be appropriate to use it as a source of material for habitat creation elsewhere in the biodiversity network. This is a compensatory measure, and should therefore be a last resort.

Site groups for enhancement, mitigation or compensation

5.9 The biodiversity network in Leicester comprises a series of core sites (SINCs) and supporting sites (BESs), the majority of which are along wildlife corridors. Other sites are part of a cluster of similar or 'stepping stones' habitats. There are a few lone sites which do not fall conveniently into a group of like sites. However, on the whole SINCs and BESs fall into 27 groups or clusters of sites which have a common theme, link, species or key habitat. These are listed in *Table 2* below and described in more detail in *Appendix 7*. For administrative purposes only they have been divided into three areas: west of the River, the Riverside and east of the River.

5.10 Development on a site within a group or cluster may require enhancements, mitigation and compensation measures. These measures will usually be required on the same or another site within the same cluster or group. However in the case of severe habitat loss or damage, it may only be possible to compensate (through habitat creation, restoration or management etc.) within another cluster or group of sites in the City.

5.11 When making decisions about enhancement, mitigation, and compensation, reference will be made to the priority habitat and species Action Plans and targets within Local, Regional or National Biodiversity Action Plans.

Table 2: Groups of sites in Biodiversity Network

West of River		***Riverside***		***East of River***	
W1	Ashton Green	R1	Thurcaston Road to Watermead Park	E1	Melton Brook, Humberstone, Hamilton
W2	Rothley Brook and Castle Hill	R2	Belgrave lock to Thurcaston Road		Gypsy Lane brickworks
W3	Beaumont Leys	R3	River - Evan's Weir to Belgrave lock	E2	Mainline Railway north
W4	Anstey Green Wedge	R4	Canal - Evan's Weir to Belgrave lock	E3	Willow brook
W5	Stokeswood and The Rally	R5	Old River (Rowing Club to Evans Weir)	E4	Coleman Road
W6	former Great Central railway line	R6	Mile Straight	E5	Evington Park
W7	Kirby Frith	R7	Aylestone north of Marsden Lane	E6	Evington Brook, Leics. golf course, Spinney Hills
W8	Braunstone and Western Park	R8	Aylestone south of Marsden Lane	E7	Mainline/Ivanhoe railway junction
W9	New Parks reservoir			E8	Saffron Brook and Mainline Railway
W10	Braunstone brook			E9	Eyres Monsell and Saffron Hill

5.12 The nature of the enhancement, mitigation and compensation measures required will be subject to the individual circumstances of the development that will bring about these measures. Some general indication of the type of opportunity or constraint within each site group is given in *Appendix 7*; this should be used as a guideline only.

Chapter 6: Monitoring and review

6.1 The quality and extent of Leicester's Sites of Importance for Nature Conservation is assessed annually by the City Council, as part of a wider monitoring exercise connected to the Council's Eco-Management and Audit Scheme (EMAS). The impact of developments subject to the planning process (whether adverse, beneficial of neutral) on these sites is one of the topics for assessment.

6.2 The effectiveness of the Biodiversity Enhancement Sites policy will be separately monitored during the life of this Supplementary Planning Guidance.

6.3 This Supplementary Planning Guidance will be reviewed after 5 years. However, it may be necessary to review it r earlier if there any significant or relevant changes in national policy concerning biodiversity, local wildlife site designation, protected species legislation or planning policy guidance. For example, it is understood that the Office of the Deputy Prime Minister may be considering a review of PPG9 on Nature Conservation at present. National guidance on local wildlife site systems is also expected from DEFRA and English Nature in the foreseeable future, and planning authorities have recently been consulted by DEFRA/ODPM on draft changes to licensing arrangements for European protected species.

Chapter 7: Consultation

7.1 The following organisations and individuals will be consulted on this Supplementary Planning Guidance:

Regional government departments and statutory agencies (such as the Department for Environment, Food and Rural Affairs, Government Office East Midlands, British Waterways, English Nature, the Environment Agency)

Local planning authorities in Leicestershire and Rutland

Voluntary organisations with an involvement in the City's biodiversity (such as Environ, the British Trust for Conservation Volunteers, Leicester Friends of the Earth, Leicestershire Bat Group)

Organisations with an interest in land of biodiversity importance in Leicester (such as the Inland Waterways Association, the House-Builders Federation, the Health Trusts)

Landowners of Sites of Importance for Nature Conservation

Statutory undertakers (such as Severn-Trent and Railtrack)

References

1 Government Office for the East Midlands (2002) *Regional Planning Guidance for the East Midlands to 2021 (RPG8).* The Stationery Office

2 Department of the Environment (1994) *Planning Policy Guidance Note 9 : Nature Conservation.* HMSO

3 *Leicestershire, Leicester and Rutland Structure Plan: Deposit Draft May 2000* and *Leicestershire, Leicester and Rutland Structure Plan: Proposed Modifications* June 2002. Leicestershire County Council

4 *Replacement City of Leicester Local Plan : Deposit copy October 2001.* Leicester City Council

5 The UK Biodiversity Steering Group (1995) *Biodiversity: the UK Steering Group Report: Vol. 1: Meeting the Rio Challenge. Vol. 2: Action Plans*. HMSO

6 East Midlands Regional Biodiversity Forum (1999). *Sustainability and biodiversity - priorities for action in the East Midlands*

7 Bowen, J & Morris, D. (1996) *Leicestershire and Rutland Biodiversity Action Plan Audit*. Leicestershire and Rutland Trust for Nature Conservation

8 Lott, D (1997) *An Inventory of Key Species in Leicestershire and Rutland* Leicestershire Museums, Arts and Records Service

9 Red Data Books :

Ballard, D & Fletcher, A (1997) *Bryophytes* Leicestershire Museums, Arts and Records Service
Dawson, J & Heaton, A. (1997) *Mammals, Reptiles, Amphibians and Fish*. Leicestershire Museums, Arts and Records Service
Jeeves, M.B. (1993): *Vascular Plants*. Leicestershire and Rutland Trust for Nature Conservation
Jeeves, M.B. (1993): *Birds*. Leicestershire and Rutland Trust for Nature Conservation
Lott, D (1995): *Beetles*. Leicestershire Museums, Arts and Records Service
McPhail, J. & Morris, D. (1997): *Butterflies and Moths*. Leicestershire Museums, Arts and Records Service

10 Jeeves, M.B et al (1998). *Biodiversity Challenge: An Action Plan for Leicester, Leicestershire and Rutland*. Leicestershire and Rutland Wildlife Trust

11 Leicester, Leicestershire and Rutland Biodiversity Action Plan Executive Committee (2001). *A Strategic Overview of Biodiversity Issues in Leicester, Leicestershire and Rutland*. Leicester City Council

12 Leicestershire, Leicestershire and Rutland SINCs Forum (2000). *Guidelines for the Selection of Sites of Importance for Nature Conservation in Leicester, Leicestershire and Rutland*. Leicestershire County Council

13 Department of the Environment (1997). *The Hedgerow Regulations : A Guide to the Law and Good Practice* The Stationery Office

APPENDIX 1

The planning context for biodiversity

1.1 The *Regional Planning Guidance (RPG)* for the East Midlands provides an overarching strategic framework for the Region, within which the Leicestershire, Leicester and Rutland Structure Plan and the City of Leicester Local Plan are prepared. Policies within these various levels of development plan must reflect Central Government guidance, which includes *Planning Policy Guidance Note 9 on Nature Conservation (PPG9)*.

1.2 Biodiversity and natural heritage are important elements of Regional Planning Guidance, the Structure Plan and Local Plan. There is an increasing recognition of the need for development plans to strengthen their links with the local Biodiversity Action Planning process, and to add a spatial dimension to strategic biodiversity issues. There is a growing awareness of the potential for conserving and enhancing biodiversity through the planning process. Developer contributions and the use of planning conditions and agreements can help to achieve many of the actions needed to sustain biodiversity at a local, regional and national level.

Regional Planning Guidance

1.3 Two policies are directly relevant to biodiversity are within *Chapter 4* of the RPG: *Natural and Cultural Resources*. In addition, *Appendix 3* of the RPG lists the *Regional Targets* for biodiversity, derived from the *Regional Biodiversity Strategy*.

Policy 27: ***Protecting and enhancing the Region's natural and cultural assets***

Sustainable development should ensure the protection, appropriate management and enhancement of the Region's natural and cultural assets. In the development and implementation of strategies and programmes in the Region, Local Authorities and other bodies should apply the following principles:

* *damage to natural and cultural assets should be avoided wherever and as far as possible, recognising that some assets are irreplaceable;*

* *unavoidable damage must be clearly justified by a need for development which outweighs the damage that would result and should be reduced to a minimum through mitigation measures;*

* *unavoidable damage which cannot be mitigated should be compensated for, preferably in a relevant local context and where possible in ways that contribute to social and economic objectives;*

* *overall there should be no net loss of natural and cultural assets, and opportunities should be sought to achieve a net gain across the Region where feasible.*

Policy 28: ***Priorities for enhancing the Region's biodiversity***

Local Authorities, environmental agencies, developers and businesses should work together to promote a major 'step change' increase in the level of the Region's biodiversity. This should be done by the:

* *achievement of the East Midlands regional contribution towards the UK Biodiversity Action Plan targets as set out in Appendix 3;*

* *establishment of large-scale habitat creation projects in the priority areas of Lincolnshire, the Region's Strategic River Corridors and heathland areas;*

* *establishment of a regional project to promote the re-creation of key wildlife habitats in each Natural Area in the East Midlands;*

* *establishment of a network of semi-natural green spaces in urban areas; and*

* *development and implementation of mechanisms to ensure that development results in no net loss of BAP habitats and that net gain is achieved.*

Leicester, Leicestershire and Rutland Structure Plan

1.5 The *Panel's Report of the Examination in Public for the Deposit Draft Structure Plan*, which took place in June-July 2001, recommended revisions to the 2 relevant Biodiversity policies:

Environment Policy 3: ***Biodiversity Enhancement***

Measures will be taken through development opportunities to;

a) protect, maintain and enhance natural biodiversity, having regard to the objectives of the Leicester, Leicestershire and Rutland Biodiversity Action Plan;

b) protect, conserve and manage sites of ecological importance and protected species and their habitats;

c) identify locations for habitat restoration and creation schemes, especially where they would link corridors, link isolated habitats or create buffer zones; and maintain and enhance the wider ecological value of the environment.

Environment Policy 3A: ***Protection of Important Species and Habitats***

i) Habitats of International Importance

Development will only be acceptable where it would not adversely affect designated or proposed Special Protection Areas, Special Areas of Conservation or Ramsar sites, unless an overriding international need for the development can be shown to outweigh the sites ecological interest and there are no alternative solutions available for the development.

ii) Habitats of National Importance

Development will only be acceptable where it would not adversely affect designated or proposed National Nature Reserves, or Sites of Special Scientific Interest designated because of their ecological interest, unless an overriding national need for the development can be shown to outweigh the sites' ecological interest and there are no alternative solutions available for that development.

iii) Habitats of local Importance

Development will only be acceptable where it would not adversely affect:

* *Sites of Importance for Nature Conservation*
* *Local Nature Reserves*
* *priority habitats identified in the Leicester, Leicestershire and Rutland Biodiversity Action Plan that do not benefit from statutory protection; or*
* *landscape features of importance to wild flora and fauna by reason of their function as a wildlife corridor, link or stepping stone between habitats,*

unless an overriding need can be shown to outweigh the ecological interest and there are no alternative solutions.

iv) Species of Acknowledged Importance

In considering proposals that would have an adverse effect on a species of acknowledged importance account will be taken of:

* *the level of protection afforded to that species*
* *the sensitivity of the species and the habitat on which it depends to any potential adverse effects caused by the proposals; and,*
* *the importance of the species and its habitat in the context of national and local Biodiversity Action Plans,*

and development will not be permitted unless an overriding interest can be proven and there are no alternative solutions.

v) Mitigation and Compensation

Where development is allowed which could adversely affect a site or habitat of ecological importance, or a protected species, conditions will be imposed and/or planning obligations sought to:

a) minimise disturbance;
b) conserve and manage its ecological interest as far as possible;
c) where appropriate, contribute towards the objectives of the Leicester, Leicestershire and Rutland Biodiversity Action Plan; and,

where damage is unavoidable, provide new or replacement habitats and resting places so that the total ecological resources remains at least at its current level.

1.6 The Panel also recommended that a new policy should be inserted, which specifically refers to the biodiversity value of certain rivers, including the Soar through Leicester:

Strategy Policy 19: ***Strategic River Corridors*****.**

The strategic importance for flood relief and biodiversity of the Rivers Soar, Trent, Welland, Wreake, Chater, Gwash, Mease, Eye, Sence (eastern) and Sence (western) and their floodplains will be recognised. Measures will be taken along these corridors through an integrated approach to protect and enhance:

a) their capacity to function as natural floodplains;
b) their linear continuity in the interests of biodiversity; and
c) the form, local character and distinctiveness of the natural, historic and built environment.

Proposals for improving access, recreation and tourism along these corridors will be encouraged where they do not have an unacceptable effect on the above interests.

Replacement City of Leicester Local Plan (2nd Deposit draft 2003)

1.7 There are 5 directly relevant policies in the *Replacement City of Leicester Local Plan (2nd deposit draft 2003):*

Chapter 10: Green Environment

GE01 Sites of Special Scientific Interest

Development will not be permitted if it adversely affects Sites of Special Scientific Interest unless an over-riding national need for the development can be shown to outweigh the sites' ecological interest and there are no alternative sites available for the development.

GE02 Sites of Importance for Nature Conservation, Local Nature Reserves and Regionally Important Geological Sites

Development will not be permitted where it would adversely affects Sites of Importance for Nature Conservation, Local Nature Reserves and Regionally Important Geological Sites unless an over-riding national or local need of strategic importance can be shown to outweigh the sites' ecological interest. In such exceptional cases planning conditions will be imposed to mitigate the impact of the development on the ecological or geological features of the site.

GE03 Biodiversity Enhancement Sites

Development on a Biodiversity Enhancement Site will be permitted if the strategic nature conservation value is maintained or enhanced. Opportunities will be sought through the planning process to enhance the biodiversity of the site, of adjacent sites or of the green network to which it relates.

GE04 Protected Species

Development will only be acceptable where it would not harm or damage the habitat on which a protected species relies, unless an over-riding interest can be proven and there are no alternative solutions available. Where an over-riding need for the development is demonstrated, the City Council will impose conditions on the planning permission or enter into planning obligations to:

* *facilitate the survival of individual members of species*
* *reduce disturbance to a minimum*
* *provide adequate alternative habitats to sustain at least the current levels of population of the species.*

GE05 Wildlife Habitats

On site where development is to take place, design and layout must address the retention, incorporation, promotion and management of the following habitats:

a) hedgerows of predominantly native or naturalised species, including associated features such as ditches, banks, walls and the adjacent herbaceous grass margin;

b) mature trees

c) standing mature dead wood habitats

d) species-rich grassland

e) floodplain wetlands and other wetland habitats; and

f) woodlands and spinneys, included all associated vegetation and habitat features.

1.8 In addition there are a number of other policies which have relevance to biodiversity in that their implementation can bring about benefits to and protection of nature conservation features.

Chapter 2: ***Strategic Themes***:

ST10 *The Strategic Green Network*

Chapter 3: ***Urban Design***

UD01	*Local Setting and Context*
UD13	*Protection of Landscape Features*
UD14	*Soft Landscaping and New Development*
UD15	*Landscape Maintenance*

Chapter 4: Special Policy Areas

SPA13 *Riverside Development*
SPA14 *Riverside Bridges*

Chapter 7: Employment

E14 *Gypsy Lane brickworks*

Chapter 9: Built environment

BE19 *Water Flow and Quality*

Chapter 10: Green Environment

GE09:	*Green Space*
GE18:	*Allotments*
GE19:	*Protection of Trees*

Chapter 11: Community and Leisure Facilities

CL05 *Redhill Policy Area*

Chapter 12: Implementation

IMP01 *Planning Obligations*

Appendix 2

Background to Local, Regional and National biodiversity policies and action plans

The national context

2.1 At the Rio Earth Summit in 1992, the UK signed the International Convention on Biodiversity, which committed us to the conservation and enhancement of our biological diversity. *Biodiversity: the UK Action Plan* was published in 1994*,* which set out plans for conserving the UK's most threatened, rare and special wildlife and habitats. Following this, many local Biodiversity Action Plans (or BAPs) were prepared, including one for Leicester, Leicestershire and Rutland.

The Regional context

2.2 *Sustainability and biodiversity - priorities for action in the East Midlands* was published in 1999 by the East Midlands Biodiversity Forum, which represents local and national conservation organisations and voluntary conservation organisations working in the East Midlands region. Its function is to encourage and co-ordinate biodiversity action through (amongst other aims) influencing the delivery of National and Local Biodiversity Action Plan objectives and targets. The document summarises priorities for biodiversity within our region, and analyses the key contributions that the nine key economic sectors can make towards enhancing regional biodiversity, including two of particular relevance to this SPG - Built Development and Minerals and Aggregates.

The Leicester, Leicestershire and Rutland Biodiversity Action Plan process

2.3 The local context for this document is the Leicester, Leicestershire and Rutland Biodiversity Action Plan process. To date, there are three different elements to this process: the *Biodiversity Audit*, *Inventory of Key Species* and the *Local Red Data Books*; *Biodiversity Challenge: an Action Plan for Leicester, Leicestershire and Rutland;* and *A Strategic Overview of Biodiversity issues in Leicester, Leicestershire and Rutland*. Together, these three elements provide a comprehensive set of guidance on biodiversity issues within the local area.

The Biodiversity Audit, Inventory of Key Species and local Red Data books

2.4 The *Leicestershire and Rutland Biodiversity Audit* was published in 1996 and the *Inventory of Key Species* in 1997. The Audit sets out a series of action points listing gaps in knowledge, identifying threatened habitats and locating the concentrations of biodiversity interest within Leicestershire and Rutland. The Inventory continues this process by identifying the habitats which require priority habitat action plans and by listing 998 key species considered to be of conservation concern within Leicestershire and Rutland. The Inventory makes reference to the series of published and draft local Red Data books which are available for many groups of species, and to the databanks of the Leicestershire Biological Records Centre and various other publications.

Biodiversity Challenge: an Action Plan for Leicester, Leicestershire and Rutland

2.5 The Inventory and the local Red Data books contain much data about important species, their habitats and their status within our area. This data was used to inform the second stage of the local BAP process; the publication in 1998 of *'Biodiversity Challenge: An Action Plan for Leicester, Leicestershire and Rutland'*. This document also reflects the national priority habitats and species given in the UK's BAP, published in 1995, and represents the means of delivering the UK's BAP at a local level.

2.7 *Biodiversity Challenge: An Action Plan for Leicester, Leicestershire and Rutland* contains an overview of the biodiversity of the area, plus a series of Habitat Action Plans which set out the actions needed to conserve the priority habitats and key species described in the

Inventory (*see Table 1*). Many of the Inventory's species are covered by Habitat Action Plans, but some species which do not fall within these priority habitats have their own separate Species Action Plans (*see Table 2*).

2.8 *'Biodiversity Challenge'* is a working document. An important factor in its implementation is the employment of a Project Manager and the setting up of an Executive Committee to oversee, co-ordinate and monitor the implementation of the Action Plans. Equally important is the partnership approach that is taken to co-ordinate action and monitor delivery. Habitat and Species Action Plans are periodically monitored, reviewed and updated. New Action Plans are being written and new priorities for action emerge as our knowledge and understanding of the biodiversity of our area increases.

Table 1: Habitat Action Plans (extracted from *'Biodiversity Challenge: an Action Plan for Leicester, Leicestershire and Rutland)*

Heath grassland	Hedgerows
Mature trees	Calcareous grassland
Neutral grassland	Field margins
Floodplain wetland	Reedbeds
Mesotrophic lakes	Fast-flowing streams
Sphagnum ponds	Springs and flushes
Field ponds	Rocks and built structures
Wet woodland	Sessile oakwood
Roadside verges	Lowland wood pasture
Large rivers	Eutrophic standing waters

Table 2: Species Action Plans (extracted from *'Biodiversity Challenge: and Action Plan for Leicester, Leicestershire and Rutland)*

Otter	Dormouse
Water Vole	Bats
Barn Owl	Redstart
Nightingale	Sand Martin
Black Hairstreak	White-clawed Crayfish
Black Poplar	Violet Helleborine
Wood Vetch	Purple Small-reed

A Strategic Overview of Biodiversity Issues in Leicester, Leicestershire and Rutland

2.9 This document was produced to fulfil a recommendation of the Regional Planning Guidance Panel report and took into account issues raised during the Structure Plan consultation process. It is concerned mainly with the spatial dimension of strategic biodiversity issues, and provides guidance on Strategic Wildlife Corridors, Strategic Biodiversity Enhancement Zones and the Habitat Improvement Zones around internationally important sites. The document provides an important context for the local area around Leicester, but one chapter is particularly relevant to Leicester - Strategic Wildlife Corridors. This chapter covers railways, brooks, rivers and canals, and is given in full in *Appendix 3*.

Appendix 3: Strategic Wildlife Corridors

Extract from *A Strategic Overview of Biodiversity Issues in Leicester, Leicestershire and Rutland* (2001)

1. Introduction

Character and function

1.1 Wildlife corridors are linear, naturally vegetated and physically connected sites which link wildlife habitats along their length. They are important because they reduce the risk of habitat fragmentation and population isolation. Connectivity is essential to ensure that the network's biodiversity value is maintained and increased, because a network of connected habitats allows species to disperse freely throughout. If species cannot disperse, colonies and populations can become isolated. Isolation leads to vulnerability to disturbance; if a habitat is damaged the wildlife that it supports is more likely to be damaged beyond recovery if the habitat is isolated than if it is part of a connected series of habitats. Physical isolation can lead to genetic isolation and a loss of genetic diversity within a species or population; this in turn will lead to a reduced ability to adapt and a vulnerability to disease, stress and environmental change.

Enhancing Strategic Wildlife Corridors

1.2 The value of a wildlife corridor or network increases with the number and quality of valuable nature conservation habitats, or 'stepping stones' along it, and by enhancing the degree of 'connectivity' between nature conservation sites and habitats. For example, corridors and networks can be improved by:

* Protection of habitats and features of value to wildlife
* Creation, restoration and management of habitats
* Increasing the width of the corridor, especially at 'pinchpoints'
* Protection and enhancement of structural and topographic variety
* Increasing the size, enhancing the quality and reducing the separation of 'stepping stone' habitats
* Maintaining and strengthening the continuous link of naturally vegetated land
* Removal or surmounting of hostile elements and barriers

The biodiversity network: railways, rivers, brooks and canals

1.3 As well as supporting important wildlife habitats within their own right, the railway and wetland networks within Leicester, Leicestershire and Rutland have an additional strategic value for the region's biodiversity. They are part of a wider network of wildlife corridors which extend throughout the East Midlands region, linking sites and habitats in Leicester, Leicestershire and Rutland to those in adjacent Counties and regions. The importance of Strategic River Corridors is identified in the emerging Regional Planning Guidance and Structure Plan policy.

1.4 Although these two networks are considered separately and are notable for different habitats, they are themselves linked. Rail routes frequently follow river valleys, reinforcing these strategic wildlife corridors, and there are frequent junction and crossing points. The junction points between rail, river, canal and brook strategic wildlife corridors are particularly important elements within both networks.

1.5 The strategic wildlife corridors in Leicester, Leicestershire and Rutland are shown on the map accompanying this document.

2. The railway network

2.1 This includes active passenger and freight lines and disused lines, derelict disused lines and those that have been adapted to another use, such as cycleways and footpaths. The latter are valuable not only for biodiversity, but also for public access to the countryside and enjoyment of its wildlife.

Opportunities and threats

2.2 Active use or reopening of a railway line to traffic does not necessarily threaten its value as a wildlife corridor. Maintenance of active lines can help to maintain important early successional and grassland habitats.

2.3 The value of the railway network is threatened by the re-development of adjacent land which function as a 'stepping stone' habitats, the severance of disused lines, the removal of disused bridges and other structures, and the natural colonisation of habitats. However, redevelopment of adjacent sites and re-opening of disused lines also gives opportunities for enhancement of the network.

2.4 Natural succession of open and grassland habitats towards scrub and secondary woodland can happen rapidly on disused and derelict parts of the network. Whilst this often creates a habitat of value, it may be at the expense of other valuable grassland and early successional habitats. In general, maintaining the structural habitat diversity of the network to create a mosaic of open ground, grassland, tall herbs and scrub will conserve and enhance the rail network's value to wildlife.

Important habitats along the rail network

2.5 These include:

* early successional communities and bare ground alongside track bed and sidings - noted for certain species of invertebrates, also lichens, bryophytes, vascular plants

* Grassland, usually on banks of cuttings and embankments - frequently species-rich and often with locally scarce plants indicative of lime-rich soils

* Scrub/grassland mosaics and developing woodland - important for birds, invertebrates and mammals (as long as it is part of a mosaic; it can threaten early successional and species-rich grasslands)

* brick and stone structures such as bridges and tunnels - for ferns, lichens, bryophytes and bat roosts

'Stepping stones'

2.6 These include:

* sidings, wharves, goods yards and similar features associated with the rail network, frequently disused or in much reduced usage

* junctions, where there is often a triangle of 'trapped' land between the tracks and a widening of the corridor to accommodate changes of level

* adjacent post-industrial and derelict land

3. River, canal and brook network

3.1 The network includes the Rivers Trent, Soar, Wreake, Welland and their significant tributaries, plus the Ashby, Grantham, Oakham and Grand Union canals.

Opportunities and threats

3.2 The main rivers together with their floodplains and tributaries are arteries of high quality habitats reaching into the wider landscape. They support several local Red Data and nationally and internationally protected species such as White-clawed Crayfish, Otter, Kingfisher, *Potamogeton* species (pondweeds), Bullhead, Spined Loach, Lamprey, Brown Trout and Water Vole.

3.3 The network also supports invasive non-native species which are a threat to the conservation of important species and habitats, such as American Mink, Signal Crayfish, Japanese Knotweed and the waterweed *Crassula helmsii*. Spread of these species is made easy by the network's connectivity, especially as different parts of the natural river and brook catchment have been artificially connected by the canal systems.

3.4 The Lower Soar, the Trent and the Ashby and Grand Union canals are open to navigation. High levels of boat use and insensitive dredging can harm wildlife value, although low levels of use and light dredging can be beneficial in conserving certain species and maintaining open water and habitat diversity. Access through previously undisturbed waterways can also reduce habitat value and diversity and disturb wildlife.

3.5 The wildlife value of the network's rivers and brooks are threatened by pollution and eutrophication from agriculture, roads, industry, sewage and other sources. However, the overall water quality of many of our rivers is improving.

3.6 In the past, flood defence works have caused loss of habitat and diversity. Conversely, modern-day flood protection schemes can bring opportunities for habitat creation and restoration. The creation of valuable floodplain wetland habitats such as seasonally flooded meadows and seasonal pools is compatible with meeting the need for new washlands to increase flood storage capacity.

3.7 Other opportunities arise from the restoration of mineral workings in the floodplain which carries the potential for creating large wetland complexes of regional wildlife value in the lower Soar and Trent valleys.

Priorities for action

3.8 Large wetland sites are especially valuable for biodiversity and sites close to existing biodiversity 'hotspots' such as SSSIs should receive special priority for habitat creation.

3.9 Management projects to be prioritised for planning gain in river corridors include:

* pollarding of mature riverside trees

* developing buffer strips of natural vegetation to intercept nutrient-rich run-off flowing into sensitive watercourses (especially mesotrophic reservoirs)

* river restoration schemes which restore natural meanders and gravel substrates to watercourses

Important habitats

3.10 * main channel riffles and pools for fish and aquatic invertebrates

* exposed riverine sediments and other riparian features for plants, common sandpiper, yellow wagtail and riparian invertebrates
* cut-off meanders, side channels, millstreams and pools, marginal marsh and swamp and floodplain ponds, especially where they support wet woodland or mats of floating vegetation; good for fish, birds, amphibians and invertebrates

* bankside mature trees and pollards for otters and invertebrates

* seasonally flooded grasslands and hay meadows for wild flowers, wintering wildfowl and insects

'Stepping Stones'

3.11 * disused gravel pits containing open water, marsh or wet woodland for waterfowl, waders, plants and invertebrates

* washlands acting as flood storage areas which can be designed to provide a whole variety of habitats

* reservoirs for waterfowl

* tunnels and bridges for bats.

The canal network

3.12 The Ashby, Grantham, Oakham and Grand Union canals in Leicestershire and Rutland represent narrow ribbons of wetland habitat that connect different river catchments. They support many of the key species found in river corridors. Their towpaths often support interesting grassland species as well.

3.13 Disused stretches of canals can support a wide range of valuable wetland habitat including reedbed and fen as well as open water. However, they represent very narrow strips of habitat, which would be sensitive to developments such as restoration of navigation. Opportunities should be seized to create and enhance wetland and grassland habitats adjacent to disused canals

Appendix 4: Criteria for the selection of SINCs in Leicester, Leicestershire and Rutland

*(*extracted from *Leicestershire, Leicestershire and Rutland SINCs Forum (2000). Guidelines for the Selection of Sites of Importance for Nature Conservation in Leicester, Leicestershire and Rutland. Leicestershire County Council)*

A: Criteria for SINC Selection

A SINC can be selected if it meets the criteria within at least one of the following 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 of the listed habitats in close association **and**

2.2 The combined area of these habitats amounts to more than 1ha **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 red data book species **with the proviso that**

3.2 Red data book bird populations can only be used to select SINCs 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).

B: Habitat Criteria

1 Woodland

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 sessile oakwoods 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
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 bluebells extending over more than 500m^2	

Secondary criteria
The site contains blocks of semi-natural woodland totalling more than one hectare in extent.

2 Scrub

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 as a habitat mosaic or as a site of social significance.

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

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.
The physical structure of hedges is important. Dense, thick, tall and continuous hedges are often of particular value to certain species of animals. Hedges are of more value if they are allowed to flower and fruit. They then provide more food for birds, invertebrates and other animals. Annual trimming is therefore undesirable, but periodic trimming creates the dense growth favored by birds. A thin gappy hedge has limited value for animals, even if it supports a diversity of plant species. Hedgerow neglect may lead to its fragmentation by grazing stock or the development of a narrow woodland strip.

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 SINC. Marginal hedges in terms of thee 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 filed margins should be included in the SINC boundary.

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

Primary criteria
The hedge must be at least 1.3m high (4ft) and continuous (breaks only at gateways or equivalent) **and** have:
6 locally native trees or shrubs from list A1 per 30m averaged out over length of hedge, **or**
5 locally native trees or shrubs from list A1 per 30m average plus two associated habitat features from list A2.

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

LIST A1 - Locally native hedgerow trees and shrubs	
Acer campestre, Field maple	*Ribes rubrum*, Redcurrant
Betula pendula, Silver Birch	*Ribes uva-crispum*, Gooseberry
Betula pubescens, Downy Birch	*Salix alba,* White Willow
Cornus sanguinea, Dogwood	*Salix aurita,* Eared Willow
Corylus avellana, Hazel	*Salix caprea*, Goat Willow
Crataegus laevigata, Hawthorn	*Salix cinerea,* Grey Willow
Crataegus monogyna, Midland Hawthorn	*Salix fragilis*, Crack Willow
Daphne laureola, Spurge Laurel	*Salix pentandra*, Bay Willow
Euonymus europaeus, Spindle	*Salix purpurea*, Purple Willow
Frangula alnus, Alder Buckthorn	*Salix triandra,* Almond Willow
Fraxinus excelsior, Ash	*Salix viminalis*, Osier
Ilex aquifolium, Holly	*Sambucus nigra*, Elder
Ligustrum vulgare, Wild privet	*Sorbus aucuparia*, Rowan
Malus sylvestris, Crab apple	*Sorbus torminalis*, Wild service
Populus nigra, Black poplar	*Tilia cordata*, Small-leaved lime
Populus tremula, Aspen	*Ulex europaeus*, Gorse
Prunus avium, Wild cherry	*Ulex gallii*, Western Gorse
Prunus spinosa, Blackthorn	*Ulmus glabra*, Wych Elm
Quercus petraea, Sessile oak	*Ulmus minor*, Small-leaved Elm
Quercus robur, Pedunculate oak	*Ulmus procera,* English Elm

Rhamnus catharticus, Buckthorn	*Viburnum lantana*, Wayfaring tree
Rosa arvensis, Field Rose	*Viburnum opulus*, Guelder rose
Rosa canina, Dog Rose	

LIST A2 - Additional habitat features of value
a ditch or steam (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 hedge
a parallel hedge with 15m

4. Mature trees

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 SINCs if they have the following physical characteristics:

Species	**Girth (in m) at 1.3m above roots**	**Other features**
oak	3.77	dead branches or evidence of heartrot in the form of visible rot, hollows or bracket fungi.
beech	3.77	"
willow	3.77	"
sweet chestnut	3.77	"
lime	3.77	"
ash	3	"
elm	3	"
poplar	3	"

Designated trees may be living, dead or even fallen. Stumps should be at least 2m high.
A site may be designated a SINC if it contains a density of trees with evidence of heartrot of 20 or more per hectare.

Secondary criteria
The site contains trees of any species with evidence of heartrot at a density of 10 or more per hectare.

5 Heathland

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 SINCs. 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, E tetralix*) and bilberry (*Vaccinium* sp.) either individually or in combination have at least 25% cover.

Secondary criteria

The site contains 1000m^2 of heather and bilberry which either individually or in combination have at least 10% cover.

6 Early successional habitats

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 as a habitat mosaic or as a site of social significance.

Secondary criteria

The site contains scattered areas totalling over 200m^2 of bare ground on a nutrient-poor substrate supporting at least three species from list B:

LIST B - Plant species of early successional habitats	
Aira caryophyllea, Silver Hair-grass	*Linaria* sp., Toadflax
Aira praecox, Early Hair-grass	*Oenothera* sp., Evening primrose
Aphanes australis, Parsley-piert	*Ornithopus perpusillus*, Birdsfoot
Arenaria serpyllifolia agg., Thyme-leaved sandwort	*Reseda* sp., Weld / Wild mignonette
Catapodium rigidum, Fern grass	*Rumex acetosella*, Sheep's sorrel
Chaenorhinum minus, Small toadflax	*Trifolium striatum*, Knotted clover
Erodium cicutarium, Storksbill	*Verbascum* sp., Mullein
Erophila sp., Whitlow grass	*Vulpia* sp., Rat's-tail / Squirrel-tail fescue

7 Rocks and built structures

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		
Baeomyces rufus	*Lecanora subcircinata*	*Peltigera* sp.[5]
Cladonia sp.[1]	*Leptogium* sp.	*Ramalina* sp.
Collema sp.[2]	*Opegrapha* sp.[3]	*Rhizocarpon geographicum*
Dermatocarpon miniatum	*Parmelia* sp.[4]	*Solenopsora candicans*

Diploschistes scruposus	*Parmelia disjuncta*	*Stereocaulon* sp.
Dinna stenhammeri	*Parmelia loxodes*	*Toninia coeruleonigricans*
Lasallia pustulata	*Parmelia verruculifera*	*Umbilicaria* 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	
Aira caryophyllea, Silver Hair-grass	*Catapodium rigidum,* Fern grass
Aira praecox, Early Hair-grass	*Erodium cicutarium*, Storksbill
Aphanes australis, Parsley-piert	*Erophila* sp., Whitlow grass
Arenaria serpyllifolia agg., Thyme-leaved sandwort	*Ornithopus perpusillus*, Birdsfoot
	Trifolium striatum, 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	
Asplenium adiantum-nigrum, Black spleenwort	*Ceterach officinarum*, Rustyback fern
Asplenum ruta-muraria, Wall rue	*Phyllitis scolopendrium*, Hart's tongue
Asplenium trichomanes, Maidenhair spleenwort	*Polypodium vulgare*, Polypody

8 Grassland

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 SINCs 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.

Mesotrophic 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.

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.

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.

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.

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 SINC 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 2500m^2 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 (*count each species of Carex separately*)	
Agrimonia eupatoria, Agrimony	*Ononis* sp., Rest-harrow
Alchemilla sp., Lady's mantle	*Pimpinella saxifraga*, Burnet saxifrage
Campanula rotundifolia, Harebell	*Potentilla erecta*, Tormentil
Carex sp., Sedge	*Primula veris*, Primrose
Centaurea nigra, Knapweed	*Ranunculus acris*, Meadow buttercup

Conopodium majus, Pignut	*Ranunculus bulbosus*, Bulbous buttercup
Filipendula ulmaria, Meadow sweet	*Rhinanthus minor*, Yellow rattle
Galium verum, Lady's bedstraw	*Rumex acetosa*, Sorrel
Knautia arvensis, Field scabious	*Sanguisorba officinalis*, Great burnet
Lathyrus pratensis, Meadow vetchling	*Saxifraga granulata*, Meadow saxifrage
Leontodon autumnalis, Autumn Hawkbit	*Silaum silaus*, Pepper saxifrage
Leontodon hispidus, Rough Hawkbit	*Stachys officinalis*, Betony
Leucanthemum vulgare, Ox-eye daisy	*Succisa pratensis*, Devil's-bit scabious
Lotus corniculatus, Birdsfoot trefoil	*Trifolium pratense,* Red clover
Luzula campestris, Field woodrush	

Wet grasslands should be seasonally flooded and at least 2500m^2 in extent in which at least 6 species from grassland lists F and G combined should be present.

LIST G - Wet grassland species (*count Carex and Juncus species separately*)	
Achillea ptarmica, Sneezewort	*Lotus pedunculatus*, Greater birdsfoot trefoil
Angelica sylvestris, Wild angelica	*Lychnis flos-cuculi,* Ragged robin
Caltha palustris, Marsh marigold	*Oenanthe fistulosa*, Tubular water dropwort
Cardamine pratensis, Cuckoo flower	*Pulicaria dysenterica,* Common fleabane
Carex sp., Sedge	*Ranunculus flammula*, Lesser spearwort
Cirsium palustre, Marsh thistle	*Thalictrum flavum*, Common meadow rue
Galium palustre, Marsh bedstraw	*Triglochin palustre*, Marsh arrow-grass
Juncus sp., Rush	

Acid grasslands should be at least 1000m^2 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	
Agrostis capillaris, Common bent	*Juncus squarrosus*, Heath rush
Calluna vulgaris, Ling	*Lathyrus linifolius* var. *montanus,* Bitter vetch
Campanula rotundifolia, Harebell	
Danthonia decumbens, Heath grass	*Luzula multiflora,* Heath woodrush
Deschampsia flexuosa, Wavy hair-grass	*Nardus stricta*, Mat grass
Erica tetralix, Cross-leaved heather	*Potentilla erecta*, Tormentil
Festuca ovina, Sheep's fescue	*Rumex acetosella*, Sheep's sorrel
Galium saxatile, Heath bedstraw	*Vaccinium myrtillus*, Bilberry

Calcareous grasslands should be at least 2500m^2 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	
Agrimonia eupatoria, Agrimony	*Linum catharticum*, Purging flax
Anacamptis pyramidalis, Pyramidal orchid	*Ononis* sp., Rest-harrow
Anthyllis vulneraria, Kidney vetch	*Ophrys apifera*, Bee orchid
Blackstonia perfoliata, Yellow-wort	*Origanum vulgare*, Marjoram
Campanula glomerata, Clustered bellflower	*Orobanche elatior*, Knapweed broomrape
Centaurea scabiosa, Greater knapweed	*Pimpinella saxifraga*, Burnet saxifrage
Echium vulgare, Viper's bugloss	*Plantago media*, Hoary plantain
Erigeron acer, Blue fleabane	*Sanguisorba minor*, Salad burnet
Euphrasia sp., Eyebright	*Scabiosa columbaria*, Small scabious
Gentianella amarella, Autumn gentian	*Thymus* sp., Thyme
Inula conyzae, Ploughman's spikenard	*Vicia cracca*, Tufted vetch
Knautia arvensis, Field scabious	

Mixed grasslands should be at least 2500m^2 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 2500m^2 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.

Many of the physical features used in the criteria are recorded in Environment Agency river corridor surveys. For evaluation purposes, stretches of rivers and streams are divided into two size classes based on stream order which is based on the number of tributaries which have fed into the stretch. In Leicestershire, there are only six rivers with a stream order greater than 3. They are:

1. River Trent (whole stretch)
2. River Soar (from Sharnford to confluence with R Trent)
3. River Wreake / Eye (from Stapleford to confluence with R Soar)
4. River Welland (from Welham to Stamford)
5. River Anker (whole stretch)
6. River Sence (from Sibson Wolds to confluence with R Anker)

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.

Streams and rivers (stream order <4)

SINC 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 within each SINC.

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 *Potamogeton* sp., Pondweed, (except *P. pectinatus*) or *Ranunculus fluitans*, River 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

Large rivers (stream order >3) and canals

SINC 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 within each SINC.

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 *Potamogeton,* Pondweed*,* (except *P. pectinatus*), *Ranunculus fluitans,* River water crowfoot*,* or *Myriophyllum* 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	
Carex sp., Sedge	*Rumex hydrolapathum*, Water dock
Eleocharis palustris, Common spike-rush	*Schoenoplectus lacustris*, Bulrush
Equisetum fluviatile, Water horsetail	*Sparganium erectum*, Branched bur-reed
Glyceria maxima, Reed sweet-grass	*Typha angustifolia*, Reedmace
Phragmites australis, Reed	*Typha latifolia*, Lesser reedmace
Rorippa amphibia, Great yellow cress	

LIST L - Floating wetland species	
Nuphar lutea, Yellow water lily	*Ranunculus* spp., Water crowfoot
Persicaria amphibia, Amphibious bistort	*Sparganium emersum*, 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

Standing water bodies, swamps and fens

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

Primary criteria
The site contains one of the following features:

Feature	Size threshold
presence of *Potamogeton,* Pondweed (except *P. pectinatus*), *Sphagnum* sp. or *Myriophyllum* sp., Water milfoil	none
stand of *Carex* sp., Sedge (except *C. hirta*) or *Typha angustifolia*, Lesser reedmace	200m^2
Phragmites, 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 *Glyceria maxima,* Reed sweet-grass*, Phragmites,* Reed or *Typha*, Reedmace	100m^2
presence of a draw-down zone with *Rumex maritimus,* Golden dock	1,000m^2
a recently unmodified spring in woodland that has been established for over 50 years	none

Secondary criteria
The site fits at least one of the following descriptions:

Description	Size threshold
flush fed by natural spring	none
location in floodplain	none
permanent or temporary field pond	none

D: Red Data Book Species Criteria

Definition of red data book species

Leicestershire red data book species include those listed in the various Leicestershire and Rutland red data books, the Leicester, Leicestershire and Rutland Biodiversity Action Plan Inventory of Key Species and those which meet the criteria for inclusion in red data books. All these publications are available from the Leicestershire and Rutland Wildlife Trust. All Leicestershire red data books are compiled by local specialists, edited by the Leicestershire and Rutland Wildlife Trust or the Leicestershire Museums Service and authoritatively refereed.

Red data book birds should be used in SINC selection only if they are rare in Leicestershire and Rutland. Rare breeding birds should only be used to select breeding sites. Rare winter visitors should only be used to select wintering sites. Sites which support nationally or internationally important wintering populations should also be designated as SINCs.

Evidence of established populations

Evidence of established populations varies from group to group as follows:

Flowering plants should have been recorded within the previous 30 years. If a species has been searched for and not found in five consecutive surveys over a period of five years or more, it cannot be used to designate a SINC. Ruderal species should be recorded in more than one year.

Invertebrates, mammals, reptiles, amphibians and fish should have been recorded in their breeding, roosting, feeding or hibernation habitat within the previous 20 years.

Birds should have been recorded breeding or roosting consistently or using the site consistently on passage or during the winter.

Amphibians should be represented by populations as listed in the species assemblage criteria.

E: 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 SINC 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 SINC 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 SINCs:

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

2 Amphibian assemblages

A site should be selected as a SINC 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	10 adults trapped, netted or counted at night

2 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 SINC 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

F: 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 (PPG9) 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, Environ 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.

Appendix 5: Sites of Importance for Nature Conservation in Leicester

	SINC	*notification date*
2	Castle Hill Country Park (Gorse Hill)	July 2000
3	King William's bridge, Rothley Brook	March 2000
4	Red Hill, Great Central railway and Belgrave Cemetery	March 2003
5	The River Soar/Grand Union Canal (Watermead Way to Twelve Arches bridge)	March 2000
6	Watermead Country Park (land owned by Leicester City Council)	March 2000
7	Birstall meadows	March 2000
8	Melton Brook flood meadow	July 2000
9	Hamilton meadows	March 2000
11	Quakesick Spinney	July 2000
12	Gypsy Lane claypit and adjacent land	March 2000
13	Anstey Lane pastures and Goss meadows	March 2000
14	The Orchards	July 2000
15	Stokeswood Park	July 2000
16	Western Golf Course and adjacent Great Crested Newt habitats	July 2000
17	Kirby Frith Local Nature Reserve	March 2000
18	New Parks Reservoir, Sacheverel Road	
19	Ratby Lane hedge and spinney	March 2003
20	Highway Spinney and Meynell's Gorse	July 2000
21	Braunstone Park meadow	March 2000
22	Willowbrook	July 2000
23	Evington Park (Ethel Road verge)	March 2000
24	Evington Park (Great Crested Newt pond)	July 2000
25	Leicestershire Golf Course and adjacent sites, Evington (St. Denys' churchyard, Piggy's Hollow, Shady Lane Arboretum)	July 2000
26	Ivanhoe/Mainline railway & sidings, and Saffron Lane road verges	March 2000
27	Welford Road Cemetery	March 2001
28	Grand Union canal	July 2000
29	Aylestone Meadows (Twelve Arches bridge to Braunstone Lane)	July 2000
30	Aylestone meadows (Braunstone Lane to Soar Valley Way)	March 2000
31	Aylestone meadows (south of Soar Valley Way)	Sept 2001
32	Knighton Spinney	July 2000
33	Braunstone Park: mature trees	March 2001

Appendix 6: Biodiversity Enhancement Sites in Leicester

A : Sites that have nature conservation value at present but are not up to the standard of SINCs, but which have potential for improvement to that quality.

B: Open land of little existing wildlife value, but which has an important place in a wildlife corridor or green network.

C: Built or derelict land of little wildlife value but occupying an important position in a wildlife corridor or green network.

	BES	A	B	C
1	Leicester Road, Thurcaston, stream and hedge	/		
2	Fox Covert	/		
3	Bevan Road, Ashton Green	/		
4	North of Greengate Lane, woodland and stream	/		
5	Castle Hill Country Park, east of by-pass	/		
6	Boston Road allotments		/	
7	Beaumont Leys Park	/		
8	Leicester Frith Farm		/	
9	Gorse Hill verges	/		
10	Keepers Lodge Park		/	
11	Beaumont Walk	/		
12	Home Farm Close	/		
13	Redhill Allotments		/	
14	Kennels, Redhill Way			/
15	Redhill Way		/	
16	Belgrave sports ground		/	
17	Redhill Circle		/	
18	Birstall Meadows south	/		
19	Birstall Meadows north	/		
20	Outdoor Pursuits Centre and fields	/		
21	Silt Tip and Bestways site	/		
22	Leicester Marina		/	/
23	Wolsey House Primary School		/	
24	John Ellis School and Beaumanor Open Space		/	
25	Belgrave Gardens		/	
26	Allotment Gardens, Abbey Park Road		/	
27	Uxbridge Road Allotments	/		
28	Troon Way	/		
29	Appleton Park	/		
30	Rushey Fields School and Melton Brook		/	/
31	Abbey Meadows riverbank	/		
32	Mainline Railway (north of Ulverscroft Road)	/		
33	Raynor Road and Melton Brook		/	/
34	Barkbythorpe Road/Melton Brook	/		
35	Hamilton Park	/		
36	Humberstone Golf Course	/		
37	Gilroes Cemetery	/		
38	Anstey Lane verges	/		
39	City Farm	/		/
40	Groby Road allotments	/		
41	Hudson Close allotments		/	
42	Stokeswood Primary School		/	/
43	Fosse Road North allotments	/		
44	Great Central Railway, Blackbird Road to Jarvis Street	/		/
45	Abbey Park	/		
46	Grand Union Canal (Belgrave to St Margaret's Way)	/		
47	The Rally Park		/	

48	Soar Island		/	
49	Fosse Park		/	
50	Castle Gardens	/		
51	Mainline Railway (Welford Road to Ulverscroft Road)	/		
52	Humberstone Park and Rally Bank	/		
53	Bushby Brook		/	
54	Willowbrook		/	
55	Lily Marriott gardens	/		
56	Coleman Road		/	
57	Reservoir, Coleman Road	/		
58	Spinney Hill Park		/	
59	Evington Brook	/		
60	General Hospital, Ethel Road		/	
61	Evington Park		/	
62	Evington Lane		/	
63	Leicestershire Golf Course clubhouse			/
64	Western Park	/		
65	Braunstone Brook		/	
66	Ivanhoe Railway Line	/		
67	Hockley Farm Road	/		
68	Highway Spinney		/	
69	Bendbow Spinney	/		
70	Braunstone Park	/		
71	Churchfields	/		
72	Westcotes Park		/	
73	Coalpit Spinney	/		
74	Faircharm Trading Estate			/
75	St Mary's Mills			/
76	Bede Island South	/		
77	Gas Works, Aylestone Road			/
78	St Mary's allotments	/		
79	Sports Ground, Aylestone	/		
80	Goose Island		/	/
81	Evesham Road allotments		/	
82	Aylestone playing fields	/	/	
83	Braunstone Lane east		/	
84	Sports Ground, Braunstone Lane East	/		
85	St Andrews Sports Ground		/	
86	Braunstone Lane East kennels			/
87	North of Soar Valley Way	/		
88	Conaglen Road	/		
89	South of Soar Valley Way	/		
90	Gilmorton Avenue	/		
91	Mainline Railway (south) and adjacent land	/		
92	Saffron Brook, Knighton Bridge	/		
93	Knighton Village, Saffron Brook	/		
94	Ashclose Spinney	/		
95	Knighton Park, Saffron Brook	/		
96	Grange Spinney	/		
97	Queens Park Way and Featherstone Drive	/		
98	Saffron Hill Cemetery	/		

APPENDIX 7: Opportunities for enhancement of the biodiversity network

[N.B - maps also to be provided for each site group]

Site groups west of the river

W1. Ashton Green

typical habitats: Arable fields, coverts, hedges, hedgerow trees, ponds and ditches

important species: badgers; old record for early purple orchid in Fox Covert

land-uses: arable, grazing, storm water detention and proposed housing development

wildlife corridors: Great Central steam railway

public access: little public access

opportunities: wetland creation and storm water balancing features
sustainable drainage - swales and ditches
pond restoration
hedgerow restoration
native woodland tree-planting
access improvements and natural public open space

SINCs none

BESs
1. Leicester Road (Thurcaston) - stream and hedge
2. Fox Covert
3. Bevan Road - Ashton Green
4. North of Greengate Lane, woodland and stream

W2. Rothley Brook and Castle Hill Country Park

typical habitats: Stream, hedges, hedgerow trees, ditches, improved and semi-improved grasslands, recent plantations

important species: badgers; white-clawed crayfish; lichens on bridge and along Rothley Brook corridor

land-uses: public open space, storm water detention from by-pass

wildlife corridors: Rothley Brook

public access: good access but occasionally feels threatening

opportunities: wetland creation and storm water balancing features

pond creation
hedgerow restoration
management of plantations and further tree-planting
improvements to public security - some sites feel threatening, which deters access and use

SINCs
2. Castle Hill Country Park, Gorse Hill
3. King William's Bridge, Rothley Brook

BESs
5. Castle Hill Country Park
6. Boston Road allotments

W3. Beaumont Leys

typical habitats: improved and semi-improved grasslands (mostly created or regenerated on former tip), recent plantations, mature spinneys, hedges and ditches, ponds

important species: badgers

land-use: public open space

wildlife corridors: hedgerows

public access: good access but occasionally feels threatening

opportunities: wetland creation and storm water balancing features
pond creation
hedgerow restoration
management of plantations and further tree-planting
improvements to public security - some sites feel threatening, which deters access and use

SINCs none

BESs
7. Beaumont Leys Park
9. Gorse Hill verges
10. Keeper's Lodge Park
11. Beaumont Walk
12. Home Farm Close

W4. Anstey Green Wedge

typical habitats : ancient hedge, hedgerows, ditches, improved and semi-improved grasslands, mature specimen trees, species rich grassland, mature plantations

important species: badgers; spiny restharrow in Goss Meadows

land-uses: cemetery, horse-grazing, Environ nature reserves, City Farm, disused allotments, public open space, farmland

wildlife corridors: Anstey Lane hedgerows, link to Stokeswood and The Rally and to Castle Hill/Beaumont Leys

public access: good - an important place for people to have access to nature.

opportunities: pond creation and restoration
hedgerow restoration and planting
management of plantations and disused allotments
extension of nature reserves onto disused allotments
changes in grassland management - to reduce overgrazing and intensive amenity/agricultural management.
access improvements; especially links between different elements of site and local communities
interpretive material for nature reserve

SINCs
13. Anstey Lane pastures and Goss Meadows
14. The Orchards
15. Stokeswood Park

BESs
8. Leicester Frith Park
37. Gilroes Cemetery
39. City Farm
40. Groby Road allotments

W5. Stokeswood and The Rally

typical habitats : ancient hedge, hedgerows, ditches, improved and semi-improved grasslands, species rich grassland, scrub and new plantations

important species: none known

land-uses: allotments (active and disused), public open space, horse-grazing, school grounds/playing fields

wildlife corridors: disused railway line (now cycle path), link to Riverside corridor and Anstey Green Wedge

public access: good - an especially good site for local people to experience wildlife; cycle path and good footpath access

opportunities: pond creation and restoration
hedgerow restoration
management of plantations and further tree-planting

SINCs
15. Stokeswood Park

BESs
41. Hudson Close allotments
42. Stokeswood Primary School
43. Fosse Road North allotments
47. The Rally Park

W6. Former Great Central railway line and Red Hill

typical habitats : species rich grassland, tall herb/grassland/scrub habitat mosaics, close-mown improved grassland, early successional communities; walls and structures

important species: badgers; pyramidal orchids in allotments; ferns on old railway bridges

land-uses: allotments (active and disused), school and club playing fields, active steam railway, privately owned disused and abandoned railway line, cemetery.

wildlife corridors: disused and active railway line, link to Riverside corridor

public access: open access to cemetery, private access to allotments, well-used but unauthorised public access along northern part of railway, but abuse and fly-tipping; fragmentation of corridor and no access to along rest of disused railway line

opportunities: cleaning up disused railway line and bringing into positive management and public access
management of scrub/grassland/tallherb mosaics on Red Hill allotments
improvements to Riverside corridor link, through hedge/tree planting, etc.

SINCs 14. Red Hill, Great Central Railway and Belgrave Cemetery

BESs
13. Red Hill allotments
14. Kennels, Red Hill Way
15. Red Hill Way
16. Belgrave Sports Ground
17. Redhill Circle
23. Wolsey House Primary School
44. Great Central Railway, Blackbird Rd - Jarvis St.

W7. <u>Kirby Frith</u>

typical habitats : species-rich grasslands, semi-improved grasslands, spinneys, hedges, ponds

important species: great crested newts and other amphibia

land-uses: public open space, nature reserve, golf-course

wildlife corridors:

public access: good; golf-course is accessible to general public

opportunities: pond, ditch and wetland creation and restoration
hedgerow restoration
management of plantations

creation of great crested newt habitats and links (terrestrial and aquatic)
interpretative material for nature reserve

SINCs
16. Western Golf course and adjacent great crested newt habitats
17. Kirby Frith LNR

BESs none

W8. Braunstone and Western Park

typical habitats : species-rich grassland; improved amenity grassland, semi-improved grassland; mature trees, parkland, ancient hedge, hedges, improved and semi-improved grasslands, scrub, new plantations and spinneys, possible ancient semi-natural woodland, ponds and park lake.

important species: badgers; bats (Braunstone Hall); mature English Oak trees; Sanicle (Ratby Lane hedge)

land-uses: public open space, playing fields and park; active freight railway

wildlife corridors: Ivanhoe railway line and Hinckley Road; Ratby Lane/Braunstone Lane

public access: good access to parks and open spaces.

opportunities:
management of new plantations
planting specimen parkland oaks
woodland management in spinneys
management of hedgerows along Hinckley Road

SINCs
19. Ratby Lane hedge and spinney
20. Highway Spinney/Meynell's Gorse
21. Braunstone Park meadow
33. Braunstone Park trees

BESs
64. Western Park
66. Ivanhoe Railway Line
67. Hockley Farm Road
68. Highway Spinney
69. Bendbow Spinney
70. Braunstone Park
71. Churchfields
73. Coalpit Spinney

W9. New Parks reservoir

typical habitats : species-rich grassland

land-uses: disused covered reservoir

wildlife corridors:

important species: calcareous grassland species including bee orchids

opportunities: management of grassland

SINCs 18. New Parks reservoir, Sacheverell Road

BESs none

W10. Braunstone Brook

typical habitats : stream, scrub, hedge, parkland

important species: none known

land-uses: park and public open space, private gardens

wildlife corridors: Braunstone Brook, Ivanhoe Railway line

public access: good access into well-used small parks

opportunities: creation of stream side wetlands
parkland tree-planting

SINCs none

BESs 49. Fosse Road Recreation Ground
65. Braunstone Brook
72. Westcotes Park

Site Groups along the Riverside

R1. Thurcaston Road to Watermead Park

typical habitats : river, streams, ditches; lakes, ponds, marsh, reedbeds; species-rich grassland and floodmeadow; hedges, spinneys and deadwood habitats; new plantation; willow scrub

important species: waterfowl; common terns at Watermead; bats; lichens in Belgrave spinney; badgers

land-uses: country park and nature reserve; public open space; river navigation and canoeing; horse and cattle grazing; allotments, sports pitches; Outdoor Pursuits Centre; land adjacent to Melton Brook proposed for employment and housing development

wildlife corridors: River Soar; Melton Brook; Troon Way

public access: good foot and cycle access; Sustrans Route 6; important place for people to see wildlife

opportunities:
creation of wetlands along Melton Brook
management of reedbeds and willow scrub
creation of ponds, marshland and waterfowl 'scrapes'
ditch management
management of new plantations
restoration and natural regeneration of silt tip
conversion of winterflooded amenity grassland to grazing or hay-meadow
installation of bat-bricks
enhancement of rough grassland for grass-snakes

SINCs
5. River Soar/Grand Union Canal
6. Watermead Country Park
7. Birstall Meadows

BESs
18. Birstall Meadows south
19. Birstall Meadows north
20. Outdoor Pursuits centre and fields
21. Silt tip and Bestways site
27. Uxbridge Road allotments

R2. Belgrave lock to Thurcaston Road

typical habitats : river and adjacent pools (former Marina); species-rich grassland and marsh; parkland, gardens and amenity grassland; lock and weir; scrub and tall herbs

important species: badger; bats, including Daubenton's bat roost in Thurcaston Road bridge; little grebe; kingfisher; Japanese Knotweed

land-uses: park and public open space; school playing fields (shortly to be closed), river navigation and canoeing

wildlife corridors: River Soar; link to Great Central steam railway

public access: good foot and cycle access; Sustrans Route 6; important place for people to see wildlife

opportunities: creation of riverside wetlands on west bank
removal of Japanese Knotweed
installation of bat-bricks
enhancement of rough grassland for grass-snakes
installation of otter steps by weir

SINCs 5. River Soar/Grand Union Canal

BESs 22. Belgrave Primary School
24. John Ellis School/ Beaumanor Open Space
25. Belgrave Gardens

R3. River - Evan's Weir to Swan's Nest Weir

typical habitats : river; weirs; parkland; gardens and amenity grassland; old walls (Abbey Park) and former railway structures; scrub

important species: bats; little grebe; kingfisher; ferns on walls, weirs and other structures

land-uses: boating (but outside river navigation) and moorings; park and public open space, allotments

wildlife corridors: River Soar; link to Great Central Railway (disused)

public access: very well-used park; good foot and cycle access along river north of Abbey Park, no access along river southwards; Sustrans Route 6; important place for people to see wildlife

opportunities: management of bankside habitats to create grass/scrub/tallherb mosaic
'wildlife-friendly' gardens and planting in Abbey Park
pollarding willows and poplars
planting specimen willows and alders
installation of bat-bricks
enhancement of rough grassland for grass-snakes
installation of otter steps by weir

SINCs 5. River Soar/Grand Union Canal

BESs 26. Allotment Gardens, Abbey Park Road
31. Abbey Meadows, riverbank
45. Abbey Park

R4. Canal - Evan's Weir to Belgrave lock

typical habitats : canal, locks, canal basin, scrub/hedge/trees along towpath

important species: bats; kingfisher; Japanese Knotweed

land-uses: navigable canal

wildlife corridors: River Soar/Grand Union Canal

public access: good access along towpath, but feels threatening with little natural surveillance and few exit points

opportunities: creation of marginal marshland along canal
management of towpath scrub and hedge, and creation of exit points, to improve personal security
removal of Japanese Knotweed
installation of bat-bricks
enhancement of rough grassland for grass-snakes

SINCs 5. River Soar/ Grand Union Canal

BESs 46. Grand Union Canal (Belgrave to St Margaret's Way)

R5. Old River Soar (Bede Island South to Richard III Road)

typical habitats : river, scrub and tallherbs, early successional habitats on former rail bridge; wall and structures

important species: bats; little grebe; kingfisher; ferns on bridges and walls

land-uses: none

wildlife corridors: River Soar; link to Ivanhoe railway and Great Central Way

public access: very little access along river except at Bede Park

opportunities: Very little opportunity due to adjacent built development.
Retain seclusion and refuge for waterbirds
plant Alder trees
installation of bat-bricks

SINCs 5. River Soar/ Grand Union Canal

BESs none

R6. Mile Straight (Twelve Arches to Evan's Weir)

typical habitats : river, park and gardens, weir

important species: bats; little grebe

land-uses: park and public open space, river/canal navigation and moorings

wildlife corridors: River Soar; link to Ivanhoe Railway line

public access: good access, Sustrans Route 6

opportunities: creation of marginal marshland
plant alders
retain and enhance 'soft' natural edge along offside
installation of bat-bricks
enhancement of rough grassland for grass-snakes
installation of otter steps by weir

SINCs 5. River Soar/ Grand Union Canal

BESs none

R7. Aylestone north - Marsden Lane to Twelve Arches

typical habitats : small river, streams and ditches; canal; ponds and marshland; floodmeadow; species-rich grassland; scrub and new plantation; railway bridges; hedges; tall herbs; amenity grassland

important species: bats; badger; kingfisher; great crested newts; grass snakes, ferns on bridges; pondweeds in canal; possible otters; possible white-clawed crayfish in canal; Japanese Knotweed

land-uses: Nature reserve and public open space, industrial estate and gasworks; sports pitches; horse-grazing; derelict sports pitch; allotments; boating along canal navigation

wildlife corridors: Rivers Soar and Biam, Grand Union Canal; Great Central Way; link to Ivanhoe Railway line

public access: very well-used and good access onto Aylestone nature reserve; Great Central Way is part of Sustrans Route 6 and heavily used

opportunities: creation of ponds, marshes and wetlands
management of plantations
reinstatement of Biam boardwalk
alder planting along river, streams and ditches
pollarding willows
control Japanese Knotweed
management of neglected grasslands
hedge restoration and management
installation of bat-bricks,
enhancement of rough grassland for grass-snakes

SINCs 28. Grand Union Canal
29. Aylestone Meadows north (Twelve Arches to Braunstone Lane East)

BESs

74. Faircharm/Marlow Road trading estate
75. St Mary's Mills
77. Gas Works, Aylestone Road
79. Gas Holder and former sports ground
80. Goose Island
81. Meredith Road allotments
83. Land off Braunstone Lane East
84. Braunstone Lane East playing fields
85. St Andrew's football club playing fields
86. Boathouse Kennels

R8. Aylestone south - Blue Bank to Marsden Lane

typical habitats : small river, canal, stream and ditches; ponds and marshland; floodmeadow; scrub and tall herbs; species-rich grasslands; semi-improved grassland; amenity grassland; hedges

important species: bats; marshland plants in Spearwort fields; white-clawed crayfish; pondweeds in canal; *Potamogeton x lintonii* off Kingsway and in ditches around playing fields; possible otters; possible white-clawed crayfish in canal, grass snakes

land-uses: public open space; horse and cattle grazing; playing fields; boating along canal navigation; disused farmland

wildlife corridors: Rivers Soar and Biam, Grand Union Canal; Great Central Way

public access: good and well-used access to northern part of site; no access to private grazing land and unauthorised access to private disused farmland; Great Central Way is part of Sustrans Route 6 and heavily used

opportunities:
creation of ponds and wetlands
planting alders and pollarding willows
management of neglected grasslands
hedge restoration and management
tree planting on farmland
installation of bat-bricks
enhancement of rough grassland for grass-snakes

SINCs

28. Grand Union Canal
30. Aylestone Meadows central (Braunstone Lane East to Soar Valley Way)
31. Aylestone Meadows south (south of Soar Valley Way)

BESs

82. Aylestone playing fields
87. Aylestone Farm north
88. Conaglen Road former allotments
89. Aylestone Farm south
90. Gilmorton Avenue

Site Groups east of the River

E1 Melton Brook, Humberstone, Hamilton, Gypsy Lane brickworks

typical habitats : species-rich grassland at Hamilton Meadows, semi-improved and rough grassland, tallherbs and scrub, spinneys, standing deadwood habitats, brook, hedges and trees, pool, ponds and floodmeadow, early successional habitats in former brickworks, rock

important species: badger, bats, lichens in Quakesick spinney and ruined barn

land-uses: derelict land, former landfill, golf-course, public open space, stormwater retention, sustainable drainage swales and wetlands, school playing fields, road and railway verges. Proposed route of Victoria Road East extension and proposed re-development of former Gypsy Lane brickworks

wildlife corridors: Mainline railway, Melton Brook, Hamilton Green Wedge, Troon Way.

public access: mostly in open access

opportunities: hedgerow and spinney management
creation of wetlands through sustainable drainage schemes
protection of species-rich grassland from agricultural damage
woodland planting
pond creation
brook enhancement, creation of off-line wetland and adjacent marsh

SSSI Gypsy Lane pit

SINCs
8. Melton Brook floodmeadow
9. Hamilton Meadows
11. Quakesick spinney
12. Gypsy Lane claypit and adjacent land

BESs
28. Troon Way
29. Appleton Park
30. Rushey Fields School and Melton Brook
33. Raynor Road and Melton Brook
34. Barkbythorpe Road and Melton Brook
35. Hamilton
36. Humberstone Golf-course

E2 Mainline Railway north

typical habitats : early successional habitats, scrub, rough grassland, walls and structures

important species: ferns on old railway structures; bats

land-uses: active passenger and freight railway and disused sidings; rail maintenance yard

wildlife corridors: Mainline Railway; links to Riverside via Ivanhoe Railway, Melton Brook and Troon Way; link to Hamilton via Melton Brook

public access: none

opportunities: conservation of early successional habitats and ferns
removal of invasive scrub from species-rich habitats

SINCs none

BESs 32. Mainline Railway (north of Ulverscroft Road)
51. Mainline Railway (Welford road to Ulverscroft Road)

E3 Willow brook

typical habitats : amenity grassland, mature trees, scrub woodland, standing dead wood habitats, species rich grassland and marshy grassland, stream and allotments

important species: water vole

land-uses: mostly public open space including Humberstone Park; The Rally and Greenlife nature reserves; allotments, back gardens

wildlife corridors: Bushby/Willow Brook; former railway

public access: generally very good

opportunities: wetland management and creation
scrub and woodland management
access improvements to nature reserves

SINCs 22. Willowbrook

BESs 52. Humberstone Park and Rally Bank
53. Bushby Brook
54. Willowbrook

E4 Coleman Road

typical habitats : semi-improved and amenity grassland, scrub and former allotments, pond, mature trees

important species:

land-uses: road verges, Lily Marriott pubic open space, covered reservoir

wildlife corridors: a stepping stone link between Willowbrook and Evington sites

public access: good, except for reservoir which is privately owned

opportunities: scrub management
tree planting
pond management

SINCs none

BESs
55. Lily Marriott gardens
56. Coleman Road
57. Coleman Road reservoir

E5 Evington Park

typical habitats : species-rich and amenity grassland, ponds, scrub and mature trees, shrubberies and flowerbeds

important species: bee orchids and other calcareous grassland species; great crested newts

land-uses: pubic open space and park

wildlife corridors: part of stepping stone link between Willowbrook and Evington sites

public access: good

opportunities: pond management and creation
grassland conservation
interpretation

SINCs
23. Ethel Road verge, Evington Park
24. Evington Park, Great Crested Newt pond

BESs
60. General hospital, Ethel road
61. Evington Park

E6 Evington Brook, Leicestershire golf course, Spinney Hills

typical habitats : specie-rich and amenity grasslands, spinneys and mature trees, species-rich and other hedgerows, brook, ponds

important species: bats, badgers, lichens in churchyard and along brook, water vole, adder's tongue fern on golf-course

land-uses: pubic open space and park, golf-course, churchyard, back gardens, cattle grazing. Scheduled Ancient Monument at Piggy's Hollow.

wildlife corridors: Evington Brook

public access: Open access into church, Piggy's Hollow, Shady Lane Arboretum and Spinney Hills Park; good access across public footpaths through golf-course. Brook mainly out of public access - at bottom of gardens.

opportunities: Improve access in parks and public open spaces
planting in Arboretum and Spinney Hills Park
grassland management - golf-course, arboretum and Piggy's Hollow
pond management and creation

SINCs 25. Leicestershire golf-course and adjacent sites

BESs 58. Spinney Hills Park
59. Evington Brook
62. Evington Lane
63. Leicestershire golf-course club-house

E7 Mainline/Ivanhoe Railway junction

typical habitats: early successional communities, scrub and regenerating woodland, species-rich grassland, mature trees, ferns on walls and structures

important species: bats, badgers, calcareous plants and other scarce plants on railway verges (e.g. Common Cudweed, Common Dropwort); old record for Sickle-leaved Hare's-ear in St Mary's allotments.

land-uses: active railways (passenger and freight), disused sidings and railway verges, road verges, disused allotments, cemetery, gas works, Freeman's Common nature reserve

wildlife corridors: Mainline and Ivanhoe railways, Saffron or Wash Brook. Link to Riverside via Ivanhoe line; link to sites at Knighton via Saffron/Wash Brook.

public access: none except Welford road cemetery. Unauthorised access to railways and severe flytipping near junction

opportunities: clean up flytipping and address unauthorised access problems
planting in cemetery
scrub removal from species-rich grasslands and early successional communities
access improvements and creation of open space into St Mary's allotments
improvements to Saffron/Wash Brook
scrub management and access improvements at Freeman's Common

SINCs 26. Ivanhoe/Mainline Railway and sidings, Saffron Lane verges
27. Welford Road cemetery

BESs 51. Mainline Railway (Welford Road to Ulverscroft Road)

77. Gas Works, Aylestone Road
78. St Mary's Allotments

E8 Saffron Brook and Mainline Railway south

typical habitats : scrub, grassland, tall herbs, brook, ponds woodlands and spinneys

important species: water vole

land-uses: active railway, public open space and parks, nature reserve in Knighton Spinney, allotments, school grounds and playing fields

wildlife corridors: Mainline railway, Saffron/Wash Brook

public access: generally good access to parks and open spaces, but problems of antisocial behaviour around railway line. Some areas out of public access (schools and allotments) and some back gardens along brook.

opportunities: improvements to access and interpretation, Knighton Spinney and Washbrook nature area
access improvements to Neston Gardens area
pond and wetland improvements, Washbrook
planting in Knighton Park and management of spinneys
improvements to brook

SINCs
32. Knighton Spinney

BESs
91. Mainline railway south and adjacent land
92. Saffron Brook, Knighton Bridge
93. Knighton Village, Saffron Brook
94. Ashclose Spinney
95. Knighton Park, Saffron Brook

E9 Eyres Monsell and Saffron Hill

typical habitats : grasslands, species-rich grassland on reservoir, scrub. tall herbs, spinneys, hedgerow, mature trees

important species:

land-uses: public open space, cemetery

wildlife corridors: Railway, Grand Union canal, Queen's Park Way; stepping stone link to Saffron/Wash brook.

public access: good, but some antisocial activity

opportunities: planting
management of spinneys, scrub and new plantations
access improvements, Queens Park Way and Grange Spinney

SINCs

BESs

96. Grange Spinney
97. Queen's Park Way and Featherstone Drive
98. Saffron Hill Cemetery and Linwood playing fields
99. Two Acre Spinney