



ENGLISH
NATURE

Report Number
652

Audit of the Towns, Cities and
Development Workstream of the
England Biodiversity Strategy
English Nature Research Reports



working today
for nature tomorrow

English Nature Research Reports

Number 652

**Audit of the Towns, Cities and Development Workstream
of the England Biodiversity Strategy**

Stephanie Wray
Jacqueline Hay
Hannah Walker
Rowena Staff

You may reproduce as many additional copies of
this report as you like, provided such copies stipulate that
copyright remains with English Nature,
Northminster House, Peterborough PE1 1UA

ISSN 0967-876X
© Copyright English Nature 2005

Acknowledgements

We would like to acknowledge:

- The British Trust for Ornithology (BTO) for provision of Breeding Bird Squares (BBS) data.
- Louise Amos from English Nature for provision of data relating to SSSIs.
- Giles Sutton of Cresswell Associates for assistance with GIS analysis of SSSIs.
- Paola Reason of Cresswell Associates for advice on wildlife gardening.

Summary

The aim of this report is to critically assess the work of the Urban Workstream Group and to provide recommendations towards achieving the objectives set out in the ‘Towns, Cities and Development’ section of the document *Working with the Grain of Nature*. *Working with the Grain of Nature* sets out five aims relating to urban biodiversity, from which several indicators are derived. These indicators and associated objectives have been assessed within the Defra report *Measuring Progress: Baseline Assessment*. The five aims set out in *Working with the Grain of Nature* are:

- To ensure that cities, towns and other settlements contribute fully to the goals of biodiversity conservation.
- To ensure that construction, planning development and regeneration have minimal impacts on biodiversity and enhance it where possible.
- To ensure that biodiversity conservation is integral to sustainable urban communities, both in the built environment, and in parks and green spaces.
- To ensure that biodiversity conservation is integral to measures to improve the quality of people’s lives, delivered through other initiatives, eg Community Strategies, including Neighbourhood Renewal and Cultural Strategies.
- To value, further and enhance people’s own contributions to improving biodiversity in towns and cities and to increase their access to it.

This report provides a critical assessment of *Measuring Progress: Baseline Assessment* produced by Defra and suggests ways in which the indicators could be improved. In terms of the methods used for measuring the indicators, recommendations have been made to ensure that the surveys are not biased and that full use is made of the data gathered for these surveys. Alternative sources of baseline data are provided, and, in some cases, a revised methodology for measuring the baseline is proposed.

The majority of the indicators provide a good method for assessing the biodiversity value of urban areas. In some cases, the definition of the indicator could be misleading and suggestions have been made to focus these indicators on truly urban biodiversity issues. *Measuring Progress: Baseline Assessment* did not include an objective for *Progress towards urban related SAP targets* and a suggestion has been made for an objective that can be realistically achieved. In some cases, it would be appropriate to expand the scope of the assessment to provide more valuable and informative data and realistic targets. Areas where this would be beneficial have been identified.

A number of priorities for action for the Urban Workstream Group to improve performance against the indicators include:

- Prioritising species or habitats that should be included on the UKBAP and carrying out research to determine their status.
- Working with English Nature to improve the condition of urban SSSIs, particularly of acid grassland, built up areas and gardens and dwarf shrub heath.
- Increasing community awareness of urban birds and their conservation by distributing leaflets and setting up a website with links to relevant organisation’s websites.

- Improving the condition of green spaces for wildlife and encouraging local people to visit green spaces by working with groups such as CABI Space.
- Increasing awareness of the value of wildlife gardening and ensuring that information is readily available to communities.
- Ensuring that local authorities are given information on how to include biodiversity targets within Local Plans and Unitary Development Plans.

Contents

Acknowledgements

Summary

1	Introduction.....	11
2	Methodology.....	13
	2.1 The audit.....	13
	2.2 Structure of this report.....	14
3	Progress towards urban related SAP targets (T1).....	15
	3.1 Introduction.....	15
	3.2 Defra’s baseline assessment.....	16
	3.3 Recommendations for the future.....	16
	3.4 Achieving the objectives.....	17
	3.5 Conclusion.....	20
4	Condition of Sites of Special Scientific Interest (SSSIs) in urban areas in England (T2).....	22
	4.1 Introduction.....	22
	4.2 Defra’s baseline assessment.....	22
	4.3 Comments on baseline assessment methodology.....	23
	4.4 Recommendations for the future.....	24
	4.5 Achieving the objectives.....	29
	4.6 Conclusion.....	30
5	Populations of birds in towns and gardens (T3).....	31
	5.1 Introduction.....	31
	5.2 Defra’s baseline assessment.....	32
	5.3 Comments on baseline assessment methodology.....	33
	5.4 Recommendations for the future.....	34
	5.5 Achieving the objectives.....	40
	5.6 Conclusion.....	43
6	Ease of access to local green space and countryside in England (T4).....	44
	6.1 Introduction.....	44
	6.2 Defra’s baseline assessment.....	45
	6.3 Comments on baseline assessment methodology.....	46
	6.4 Recommendations for the future.....	48
	6.5 Achieving the objectives.....	53
	6.6 Conclusion.....	53
7	Proportions of households in England undertaking wildlife gardening (T5).....	54
	7.1 Introduction.....	54
	7.2 Defra’s baseline assessment.....	55
	7.3 Comments on baseline assessment methodology.....	56

7.4	Recommendations for the future.....	57
7.5	Achieving the objective	62
7.6	Conclusion	63
8	Local Plans and Unitary Development Plans with biodiversity policies and targets in England (T6).....	65
8.1	Introduction.....	65
8.2	Defra’s baseline assessment.....	66
8.3	Comments on baseline assessment methodology	67
8.4	Recommendations for the future.....	68
8.5	Achieving the objective	71
8.6	Conclusion	73
9	Conclusions.....	74
9.1	Definition of the indicators and objectives	74
9.2	Measuring the indicators.....	74
9.3	Extending the scope of the assessments.....	74
9.4	Priorities for action	74
9.5	Potential new partners.....	75
10	References.....	77
	Appendices	81
	Appendix I. Urban SSSIs as defined by the revised methodology	83
	Appendix II. SSSI units summary table showing habitat type and condition	99
	Appendix III. Local authorities classified as ‘urban’ and ‘suburban’	101

1 Introduction

During the 20th century, there have been increasing demands on natural resources in the UK, particularly with regard to the pressures of urban and infrastructure expansion and the intensification of agricultural production. This has led to the loss of some important wildlife sites and deterioration in the quality of others. Many wildlife species have suffered as a consequence.

The UN Convention on Biological Diversity (CBD) which was signed following the earth Summit in Rio de Janeiro in 1992 (CBD website) resulted in the publication of the *UK Biodiversity Action Plan* (UKBAP) 1994. The UKBAP establishes targets for the recovery of the UK's threatened species through a series of habitat and species action plans (UKBAP website). The action plans highlight the reasons for the decline of the habitats or species and prioritise the actions needed to reverse the current trends.

The England Biodiversity Group have worked to develop a strategy for England to monitor the integration of biodiversity into policies and programmes and help deliver the aims of section 74 of the Countryside Rights of Way Act (CROW 2000). The Group involves representatives of the Government, statutory agencies, conservation organisations and the private sector. The biodiversity strategy for England *Working with the Grain of Nature* sets out a series of objectives for conserving biodiversity and integrating these conservation measures into other sectors. The document sets out eight headline indicators to monitor the progress towards the goals of the England Biodiversity Strategy. These are:

- The populations of wild birds.
- The condition of Sites of Special Scientific Interest.
- Progress with Biodiversity Action Plans.
- Area of land under agri-environment agreements.
- Biological quality of rivers.
- Fish stocks around the UK fished within safe limits.
- Progress with Local Biodiversity Action Plans.
- Public attitudes to biodiversity.

Urban areas are particularly important for targeting nature conservation in England since 90% of the population live in towns and cities. There are a number of concerns for species and habitats in urban areas as a result of human pressure. One of the most damaging influences for urban habitats, and the species that rely on them, is the pressure from development on the natural habitats that remain. The associated high population densities leave little room for natural processes to occur. Although most towns and cities have some sort of green space, and most development plans are now required to include them, it is not unusual for urban green spaces to be intensively managed or managed in an unsympathetic manner for wildlife. There is added pressure, particularly on plant communities and the invertebrates that rely on them, from the introduction of alien species from urban gardens, which can have consequences through the food chain and can out-compete native species.

The document *Working with the Grain of Nature* sets out the following aims for towns, cities and development:

- To ensure that cities, towns and other settlements contribute fully to the goals of biodiversity conservation.
- To ensure that construction, planning, development and regeneration have minimal adverse impacts on biodiversity and enhance it where possible.
- To ensure that biodiversity conservation is integral to sustainable urban communities, both in built environment, and in parks and green spaces.
- To ensure that biodiversity conservation is integral to measures to improve the quality of people's lives, delivered through other initiatives, eg Community Strategies, including Neighbourhood Renewal and Cultural Strategies, social inclusion, health and equality of opportunity.
- To value, further and enhance people's own contributions to improving biodiversity in towns and cities and to increase their access to it.

Six more specific indicators have been devised from the original eight indicators for the 'Towns, Cities and Development' workstream. These are:

- T1: Progress towards urban related SAP targets.
- T2: Condition of SSSIs in urban areas.
- T3: Populations of birds in towns and gardens.
- T4: Ease of access to local green space and countryside.
- T5: Proportions of households in England undertaking wildlife gardening.
- T6: Unitary Development/Structure Plans with biodiversity policies and targets.

English Nature, on behalf of the Urban Workstream Group, commissioned an audit of the progress with the towns, cities and development workstream of the England Biodiversity Strategy to inform the prioritisation of future work of the group and aid more efficient reporting. This document reports on the findings of this work for each of the indicators specific to 'Towns, Cities and Development' and suggests amendments to the indicators that will increase their value for monitoring progress towards the England's Biodiversity Strategy objectives.

2 Methodology

2.1 The audit

The audit of the Towns, Cities and Development Workstream of the England Biodiversity Strategy comprises six main strands of work as identified in the English Nature brief:

- To critically assess the work of the Urban Workstream Group.
- To establish a baseline, framework and priorities for future reporting, both on the targets and indicators and the wider programmes of action for the workstream.
- Determine priorities for action in implementing the urban workstream.
- Identify bodies which can most effectively lead in delivering elements of the workstream.
- Identify key players/sectors essential to the process but currently not engaged in it.
- Identify options for future working and constitution of the group with regard to the breadth of policy issues and current small constituent membership.

This report aims to assess the work of the Urban Workstream Group to date and, in particular, critically assess the existing methods of collating/obtaining information, improving on these where possible.

To critically assess the work of the Urban Workstream Group

In 2003 Defra produced the document *Measuring Progress: Baseline Assessment*, which published the recent trends for each indicator from each sector described in *Working with the Grain of Nature* (Defra 2002). The original surveys and reports presented within this document have been consulted in order to review their methodology.

An assessment has been made of published sources identified in Appendix 4 of *Working with the Grain of Nature*. The internet has been used in order to gather additional information and contact with specialists has been made where necessary. Several organisations have been contacted in order to identify relevant sources of information; these include the British Trust for Ornithology (BTO), Groundwork, the Green Flag Award Scheme, English Nature and CABE Space.

To establish a baseline, framework and priorities for future reporting both on targets and indicators

From our assessment of the current situation, we recommend priorities for future reporting. Constraints on the collation of data, and biases in these data are examined in greater detail. In cases where the data being collated to date does not appear to be generating data that can be readily interpreted, or where there will be too much 'noise' to determine any trends, then modifications to the data collection have been suggested.

The headline Key Performance Indicators for the workstream are critically reviewed and if necessary revised in the light of the work to date. It is essential that the headline indicators give a good understanding of the status of the work undertaken by the group, without limiting actions just to the headlines diverting any effort from other important areas.

Determine priorities for action in implementing the urban workstream

We use the results of our review to propose priorities for future action based on the ability to deliver appropriate biodiversity benefits within the workstream; availability of resources (both financial, human, and technical); measurability and achievability.

Identify which bodies can most effectively lead in delivering elements of the workstream, key players / sectors essential to the process and options for future working.

Additional information has been gathered from a wide variety of sources and those organisations that could provide a valuable input to the workstream have been identified. Further contact with these bodies would ensure that experts within each sector are involved with the programme.

2.2 Structure of this report

Based upon these six strands of work, the following issues are addressed within this report:

- **Definition of the objective and indicator:** Suggestions have been made as to how the indicator or objective for that indicator could be changed in order to give a more effective measurement of the biodiversity value of urban areas.
- **Measuring the indicator:** Defra's baseline assessment has been critically reviewed recommendations made on how the baseline assessment methodologies could be improved. This includes making full use of the data available from the current surveys and ensuring that surveys are not biased. In some cases a new methodology is devised or extensions suggested in order to gain a better understanding of urban biodiversity issues.
- **Extending the scope of the assessment:** In some cases the current assessment does not fully address the issues and it may be necessary to widen the scope of the assessment. Suggestions have been made regarding the relevant sources of data for any extensions.
- **Priorities for action:** Ways in which the Urban Workstream Group could work towards achieving their targets have been suggested.
- **Potential new partners:** It may be beneficial for the Urban Workstream Group to form partnerships with organisations currently involved with the urban biodiversity issues. For each of the indicators, possible partners have been suggested.

3 Progress towards urban related SAP targets (T1)

Objective: No objective has been defined for this indicator in the baseline assessment.

3.1 Introduction

3.1.1 Species action plans

Following the Earth Summit in Rio in 1992, 150 government leaders signed the Convention on Biological Diversity (CBD), which is dedicated to promoting sustainable development. The CBD addressed the same issues as Agenda 21 but realised the need for integration with people and industries (CBD website). The UK's response to the CBD was the publication of the *UK Biodiversity Action Plan* (UKBAP) in 1994.

The UKBAP aims to improve the status of the UK's most threatened habitats and species. Species or habitat action plans have been produced for those species and habitats thought to be under the greatest threat. The action plans establish recovery targets for each species or habitat and if possible, identify the factors causing their decline and prioritise the work that is needed to increase their conservation status. Urban habitats have been identified as one of the priority broad habitat types of particular concern and a broad habitat statement has been produced. However, as yet, there are no UKBAP priority habitats or species associated with the urban broad habitat type.

As well as the overall BAP for the UK, local BAPs have also been developed which target species or habitats of particular importance or relevance to local areas (usually counties). A number of local BAPs have listed the urban broad habitat type and have added some action plans for urban species or habitats in their area under this category.

3.1.2 Why this is a good indicator

Given that nature conservation work is very often directed at BAP priority species and habitats, monitoring the status of these species or habitats is a very good indicator of the success of England's efforts at enhancing biodiversity. The progress made towards achieving the agreed targets stated in BAPs is a particularly good indicator of biodiversity in England. The status of BAP species and habitats is likely to reflect trends in habitat loss and degradation, pollution and infrastructure.

The progress towards achieving the targets set in the BAPs is assessed and reported on every three years. Assessments were carried out in 1999 and 2002 and the reports can be viewed on the UKBAP website. Because the 1999 assessment was carried out so soon after some of the action plans were published, there were insufficient data to provide an estimate of the status in England for some of the priority species and habitats. Therefore at this stage, monitoring the progress made between the two assessments may not be possible in many cases. However, since the next assessment is due to be carried out during 2005, progress made between the 2002 assessment and the 2005 assessment could be monitored.

3.1.3 Urban broad habitat type

The urban broad habitat type includes buildings, hard surfaces, green spaces and brownfield sites. The mosaic of habitats that often occurs in urban areas is one of the most valuable

features for wildlife in urban areas. The UKBAP habitat statement for the urban broad habitat type states that the main factors that affect the structure of urban habitats are (UKBAP website):

- Simplification of park management and reclamation or redevelopment of disused land to a uniform land use.
- Development encroachment onto parks, old cemeteries, long abandoned sites and large established suburban gardens.
- Management of green spaces such as clearing of shrubs, filling in ponds and levelling land with hillocks and hollows making them less attractive to wildlife.
- Changes in industrial processes and mining activities and the end of many producing large quantities of waste means that the distinctive communities and uncommon species associated with many waste and spoil tips will decline.

The main objective of the urban broad habitat type statement is to:

“maintain the existing diversity and extent of wildlife in all urban areas, expanding the range and distribution of rare and common species and enabling this resource to be utilised as an educational tool.”

3.1.4 Purpose of this chapter

Given that the Defra’s baseline assessment does not include this indicator for towns, cities and development, the aim of this chapter is to examine the effectiveness of this indicator, consider the objectives and suggest appropriate methodology for measuring “progress towards urban SAP related targets”. We will seek to improve the value of this indicator by suggesting changes to the indicator that will take account of the current situation regarding urban SAPs and HAPs.

3.2 Defra’s baseline assessment

The baseline assessment did not consider the indicator “Progress towards urban related SAP targets” for towns, cities and development. This was presumably the case because at the time there were no SAPs or HAPs defined for the urban broad habitat type. The methodology used in the other sections of the baseline assessment (ie coasts and seas, woodland and forestry) would not be appropriate for towns, cities and development because SAPs and HAPs would need to be developed before their progress can be measured.

3.3 Recommendations for the future

3.3.1 Definition of the indicator and objective

The indicator as it stands would be a useful tool for measuring the progress made towards targets for priority urban habitats and species in the future. However, given that at present there are no priority species or habitats defined for the urban broad habitat type only progress towards the targets specified in this broad action plan can be measured.

A suitable objective would be to include some species and habitats under the broad urban habitat category and gather information on the current status of these species. Once the status

of these species is known, progress towards the targets set in the SAPs and HAPs can be monitored. It is suggested that a suitable objective would be:

“To include threatened species and habitats of urban areas in the UK Biodiversity Action Plan and research their status. To halt and ultimately reverse the decline in priority urban species and habitats.”

A separate English Nature contract has been commissioned to investigate the coverage of urban habitats in Local BAPs with a view to improving their representation. The commission should provide further and more detailed recommendations for increasing the coverage of urban habitats within Local BAPs.

3.4 Achieving the objectives

3.4.1 Increasing the number of LBAPs listing the urban broad habitat type

Before significant progress can be made for the urban broad habitat type, it is essential that the profile of urban areas be raised within the UKBAP, which will encourage the lead partners of Local BAPs to take similar measures. At present, only 19 Local BAPs list the urban broad habitat type as a priority. Certainly by classifying some species and habitats with the urban broad habitat type, more lead partners will recognise the urban habitat as a resource worth protecting. Table 1.1 below, shows the HAPs and SAPs (either published or in the process) that are associated with the urban broad habitat type from the 19 Local BAPs that include it. In particular, the Birmingham and Black Country Biodiversity Action Plan provides HAPs and SAPs for a wide range of species associated with urban habitats. The inclusion of a number of these SAPs and HAPs within the UKBAP would lead to more conservation objectives being targeted towards urban habitats.

Table 1.1: Species and habitat action plans associated with the urban broad habitat type within local BAPs.

Habitats	Plants	Invertebrates	Mammals	Birds	Reptiles/ amphibians
Urban wasteland	Meadow crane's-bill	Holly blue	Pipistrelle	Blackbird	Common frog
Landscaped parks	Orchids	Small copper	Badger	Blackcap	Great crested newt
Public gardens	Orchids	Stag beetle	Hedgehog	House sparrow	Grass snake
Gardens and allotments	Field woundwort	Wall brown	Brand't bat	Dunnock	Smooth newt
Garden ponds	Common broomrape	Crayfish	Brown long-eared bat	Greenfinch	
Buildings and the built environment		Buttoned snout moth	Daubentons bat	Goldfinch	
Streams and rivers		Northern rustic moth	Leisler's bat	Great spotted woodpecker	
Eutrophic urban ponds		Bay willow moth	Natterer's bat	House martin	
Woodpasture and veteran trees			Whiskered bat	Song thrush	

Habitats	Plants	Invertebrates	Mammals	Birds	Reptiles/ amphibians
Open water			Water vole	Spotted flycatcher	
Road verges			Noctule bat	Swallow	
Orchards				Tawny owl	
Hedgerows				Turtle dove	
Unimproved neutral grassland				Skylark	
				Blue tit	
				Robin	
				Black redstart	
				Peregrine	
				Kestrel	
				Swift	
			Barn owl		

3.4.2 Including urban habitats and species on the UKBAP

There are a number of species and habitat action plans currently listed on the UKBAP that are commonly associated with urban areas. These action plans should be linked to that of the urban broad habitat type statement and other threatened species or habitats for which no current action plan exists should be added to the UKBAP. Current action plans that are particularly relevant to urban areas include: lowland heaths, wood pasture and parkland, stag beetle, great crested newt, song thrush, water vole and pipistrelle bat. Research could be undertaken to identify further threatened species characteristic of urban areas that could be included when the UKBAP is reviewed and updated. For example, threatened or declining urban birds that the authors considered worthy of inclusion are the house sparrow, starling, swift and black redstart.

3.4.3 Researching the status of urban species and habitats

Following the selection of a number of characteristically urban species and habitats for inclusion onto the UKBAP, targeted research should be carried out to determine the status of these species or habitats so that a baseline can be established. From here, progress towards the targets specified in the UKBAP can be monitored.

3.4.4 Reverse the decline in priority urban species and habitats

Given that there are no priority species or habitats under the broad urban habitat type, it is appropriate at this time to review the targets proposed for the broad urban habitat type rather than make assumptions about what the proposed targets may be for selected priority urban species or habitats. The published targets for the urban broad habitat type are:

- (i) Survey and evaluate the full range of urban habitats (including buildings) in terms of their importance in maintaining wildlife interest.

The surveys could be done as part of a larger national survey involving NGOs and volunteers as part of a project to increase awareness of wildlife in urban areas. This target has the potential to involve local people, particularly schools, and therefore increase the number of people that benefit from wildlife in urban areas.

- (ii) Protect sites important for wildlife from changes in land use.

This target would need to be achieved through the local planning authorities since the factor that has most influence on urban wildlife habitats is development. These issues are dealt with in section T6 of this report. Those sites that are used or enjoyed by people on a regular basis are more likely to be protected than sites that are rarely visited or unknown. Education and community involvement, particularly to improve sites as a refuge for wildlife, would help to achieve this target.

- (iii) Encourage the integration of green networks (incorporating a full range of wildlife habitats) in planning and developments within the urban environment.

Most development proposals are required to have some green space set aside for public use. These provisions are set out in the councils Local Plan, and include policies such as:

“The Borough Council will seek to ensure that no home within the Borough is more than half a mile from a neighbourhood park and from a children's play area containing fixed play equipment, and no more than one mile from a local park providing active and passive recreation facilities for all sections of the population.”

(Policy R5 from the Southend on Sea Borough Local Plan)

“Proposals for new residential development should provide appropriate public outdoor playing space in accordance with the adopted standard of 2.4 hectares per 1,000 population.”

(Policy R5 from the Stroud District Local Plan)

As discussed in section T4, the main problem likely to be associated with green spaces is the creation of highly managed areas of grassland with little structural diversity or benefits for wildlife. Developers should be given more specific guidance on the integration of habitats important for wildlife with public green space. The importance of green corridors that can be utilised by wildlife for dispersal or to reduce the fragmentation of habitats is particularly important and planning authorities should be encouraging these to be incorporated into any development.

- (iv) Implement strategies to enable the use of vacant and derelict land, either temporarily or permanently as wildlife habitats.

Industries or developers who have little knowledge of the potential value of the land to wildlife often own vacant or derelict land. Increasing awareness would be key to encouraging landowners to provide refuges for wildlife particularly since grants are available for such projects. However, if it is possible that vacant land may be required for further development or other uses in the future, landowners may be reluctant to commit their land, even temporarily, for nature conservation if it is possible that this may create constraints to land use in the future. To avoid this issue, a scheme could be developed where land owners manage part of their land for wildlife conservation but with advice on how to avoid this having an effect on their future development aspirations. For example, if a site were to be developed for housing in 5-10 years time, the owner could begin to manage those parts of the site that would be retained in perpetuity easily whilst keeping the developable area free of constraint. This would realise the wildlife benefits in advance of construction without prejudicing future use. Derelict and disused urban areas may be eligible to receive funding through Derelict Land Grants in England.

- (v) Incorporate the conservation and enhancement of wildlife into the management of urban green space.

As mentioned earlier and discussed further in section T4, urban green spaces are often highly managed areas with little room for wildlife. Incorporating nature conservation into these areas can be simple and increase the value of the area for local people. However, education and training for landscape managers is essential to ensure that the right balance is achieved to produce a landscape that is safe and enjoyable for people as well as a productive and connected habitat for wildlife.

- (vi) Encourage community action to survey, plan for and manage wildlife habitats

and

- (vii) Promote wild space in urban areas as an educational resource to inform communities about local wildlife.

Urban habitats have considerable potential for local people to take part in organised community activities that benefit nature conservation. These sorts of activities also form an invaluable educational tool informing people of wildlife interest, natural processes and conservation management. A comprehensive programme of public surveys and educational events should form a large part of conservation in urban areas so that people can be used as a resource to benefit conservation rather than causing adversity. Several organisations currently promote urban regeneration and environmental education. Groundwork aims to involve local people in projects that turn derelict land into community gardens and parks. They also work within schools to educate children about issues relating to sustainable development and the environment. Groundwork could therefore be a valuable partner organisation to the Urban Workstream Group.

3.5 Conclusion

The following recommendations are suggested for this indicator:

Definition of the objective: We recommend that the objective for this indicator should be “To include threatened species and habitats of urban areas in the UK Biodiversity Action Plan and research their status. To halt and ultimately reverse the decline in priority urban species and habitats.”

A separate English Nature contract has been commissioned to investigate the coverage of urban habitats in Local BAPs with a view to improving their representation. The contract should provide further and more detailed recommendations for increasing the coverage of urban habitats within Local BAPs.

Measuring the indicator: At present, because there are no HAPs or SAPs defined under the broad urban habitat category, progress towards achieving their targets cannot be measured. This report has presented possible SAPs that could be used for urban habitats and English Nature’s commission to investigate the coverage of urban habitats in Local BAPs should allow progress to be made.

Priorities for action: The focus of future work on urban related BAPs should be to prioritise species or habitats that should be included on the UKBAP and carry out research to determine their status. The targets published for the urban broad habitat type in the UKBAP involve a large amount of educational and community involvement work to fully integrate nature conservation with developed areas.

Potential new partners: It may be appropriate to form a partnership with Groundwork in relation to encouraging community action and education.

4 Condition of Sites of Special Scientific Interest (SSSIs) in urban areas in England (T2)

Objective: To increase the proportion of urban SSSIs which are in favourable condition.

4.1 Introduction

Sites of Special Scientific Interest (SSSIs) are intended to protect and conserve the most important sites for wildlife and geology in England. There are over 4,000 SSSIs in England, covering around 7% of the total land area. Sites that are afforded protection range from a single bat roost to large expanses of moorland.

SSSIs in England are notified by the Government's nature conservation agency, English Nature. In recent years, the aim of English Nature has been not only to protect these sites from damaging activity but also to influence the management of these areas so that they are maintained in a favourable condition. This progressed with adoption of the Countryside and Rights of Way (CROW) Act 2000 which provided legislation to support the recovery and maintenance of SSSIs.

4.1.1 Why this is a good indicator

Improving the condition of SSSIs has been identified by English Nature as a priority for action. The Government's Public Service Agreement (PSA) targets include the objective to ensure that 95% of SSSI land by area should be in favourable or unfavourable recovering condition by 2010. In order to measure whether this target is being met, English Nature began an assessment of the condition of SSSIs in 1997. Sites in favourable condition are those where features of the habitat and species are in a healthy state and are being appropriately managed in order to meet its conservation objectives. For the purposes of this report, meeting the PSA target would require a site to be in target condition of 'favourable' or 'unfavourable recovering'. In the baseline report of 2003, 58% of SSSI land by area was in target condition, therefore not meeting the PSA target.

4.1.2 Purpose of this chapter

For the purposes of the towns, cities and development workstream, it is important to monitor the condition of urban SSSIs. The aim of this chapter is therefore to provide criteria by which we can define 'urban SSSIs' and look at the condition of these sites. This can then be used to identify the habitat types within urban SSSIs that are currently in poor condition, and develop management plans for those areas.

4.2 Defra's baseline assessment

In order to assess which SSSIs are urban, the area of SSSIs that lie within or in close proximity to urban areas in England were selected. This was defined by drawing a 500 metre zone around the perimeter of urban areas (using the Government Standard Boundaries for urban areas of more than 20 hectares in size and greater than 10,000 in population in 1991). The total SSSI area within this 500 metre zone was then calculated.

The baseline assessment considered the condition of sites on the basis of an evaluation made by English Nature in 2003. SSSIs are assessed as being in ‘target condition’ if they fall within the categories favourable maintained, favourable recovered or unfavourable recovering. These assessments are made every six years.

As shown in Figure 2.1, the baseline assessment found that 67% of urban SSSIs are in target condition, compared with 57% for SSSIs as a whole.

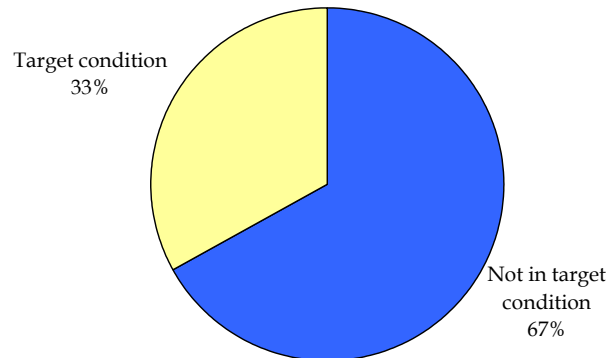


Figure 2.1: Area of urban SSSIs in target condition from *Measuring Progress: The Baseline Assessment*, Defra, 2003

The Government’s Public Service agreement (PSA) target is for 95% by area of nationally important wildlife sites to be in favourable or unfavourable recovering condition by 2010. This assessment therefore shows that urban SSSIs are not meeting the PSA target. Though, perhaps surprisingly, a higher proportion of urban SSSIs are in target condition compared with the proportion of all SSSIs.

4.3 Comments on baseline assessment methodology

4.3.1 Geological sites

Defra’s baseline assessment does not distinguish between sites that have been classified on the basis of geological features from those of ecological importance. Sites classified for their geological importance include areas such as quarries, mines and littoral sediments. These sites should not be included within this assessment as they do not provide an appropriate biodiversity indicator. Using Defra’s baseline assessment, sites such as Boon’s Quarry and Aller Sand Pit have been included, despite their lack of biodiversity value.

4.3.2 Definition of urban SSSIs

Defra’s baseline assessment included all areas of SSSIs that lie within 500m of an urban zone. The rationale for this was that any area of a SSSI that lies within 500m of an urban area would be likely to have high impacts from urban disturbance.

However, this does not give an accurate indication of the sites that can truly be considered as being influenced by urban development. In some cases only a small area of a particular SSSI

may lie within close proximity to an urban area. Therefore, there is unlikely to be a significant impact on that SSSI from urban influences. Instead of including any area of a SSSI that is close to an urban area it would be more appropriate to consider the extent of impact that an urban area is likely to have on the SSSI as a whole.

It would be more reliable to include those sites that share a high proportion of their immediate border with urban areas. It is these sites that will experience a considerable influence from urban processes. These influences would include the pressures of air and water pollution, litter, disturbance and traffic noise that would all have effects upon the biodiversity of the SSSI. It is also likely that such sites would constitute more typically urban habitats rather than areas of countryside which happen to be close to conurbations.

An alternative methodology for selection of urban sites is therefore provided, with the results of the assessment shown.

4.3.3 Assessment of the condition of SSSIs

In order to assess the condition of SSSIs the Common Standards Monitoring scheme is used. These are accepted standards that are used by English Nature in order to monitor the condition of SSSIs. The same criteria are used when assessing all sites, ensuring that judgements are consistent and comparable between sites. The site features are assessed according to the following categories:

- Favourable – maintained
- Favourable – recovered
- Unfavourable – recovering
- Unfavourable – no change
- Unfavourable –declining
- Partially destroyed
- Destroyed

For the purposes of Defra’s baseline assessment, SSSIs were classified as being in target condition if they fell within the first three categories.

This methodology for assessing the condition of SSSIs is appropriate for the baseline assessment. It is carried out by qualified staff with English Nature, using attributes that are quantifiable and measurable. It considers a range of features including habitats and species as well as taking into account the changing status of condition (ie recovering or declining).

4.4 Recommendations for the future

4.4.1 Alternative method for measuring the indicator

In order to address the problems described in the section above, a new methodology has been devised that only includes ecologically valuable sites and selects those SSSIs that are likely to most influenced by urban areas..

(i) Geological sites

All sites that were designated based solely upon their geological importance were removed from the dataset. This ensures that only those areas that are of ecological value (and therefore provide a good biodiversity indicator) are assessed.

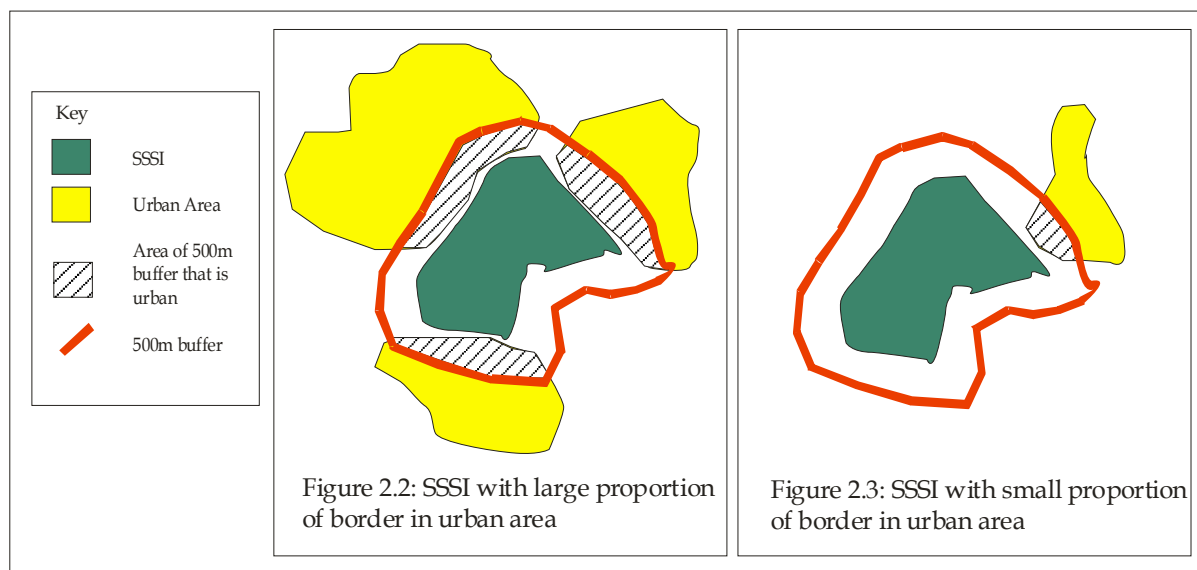
(ii) Definition of urban SSSIs

A new methodology for defining urban areas has been devised. This aims to assess the proportion of a SSSI's border that is within an urban area. Those sites where this proportion is high are classified as urban.

Urban areas were derived from the OS Meridian 2 Developed Land Use Areas (DLUA) dataset¹. SSSI datasets were provided by English Nature.

A 500m buffer was drawn around each SSSI. The proportion of this buffer overlapping urban area polygons was then calculated. If this proportion was greater than 40% then the SSSI was classified as urban. This provides a good indication of the urban influence that the SSSI would experience.

Those sites that are surrounded by urban areas would be classified as urban (see Figure 2.2). A site that was mainly surrounded by countryside but had a small area of its border adjacent to an urban area would not be classified as urban (see Figure 2.3).



Figures 2.2 and 2.3: Methodology for defining the urban SSSIs

(iii) Assessment of the condition of urban SSSIs

The methodology used to classify whether sites are in target condition has been shown to be a good measure and has therefore been retained within the revised methodology.

¹ This dataset was originally digitised from OS 1:250,000 raster maps but have been locally and incrementally changed to reflect changes in land use and are now presented as a 1:50,000 scale vector product.

(iv) Assessment according to habitat type

English Nature has subdivided SSSIs into several management units. These have been divided by SSSI managers based upon their features, tenure or management and are classified according to habitat type. An analysis was made of the proportion (by area) of SSSI units in target condition for each habitat type.

4.4.2 Results of the revised methodology

Using the revised methodology, 199 SSSIs were classified as urban. These comprised 878 SSSI site management units. Appendix I shows the SSSI units that are classified as urban.

4.4.3 Condition of urban SSSIs

514 of the 878 SSSI management units are in target condition. Urban SSSIs cover a total area of 129 km², of which 78 km² are in target condition.

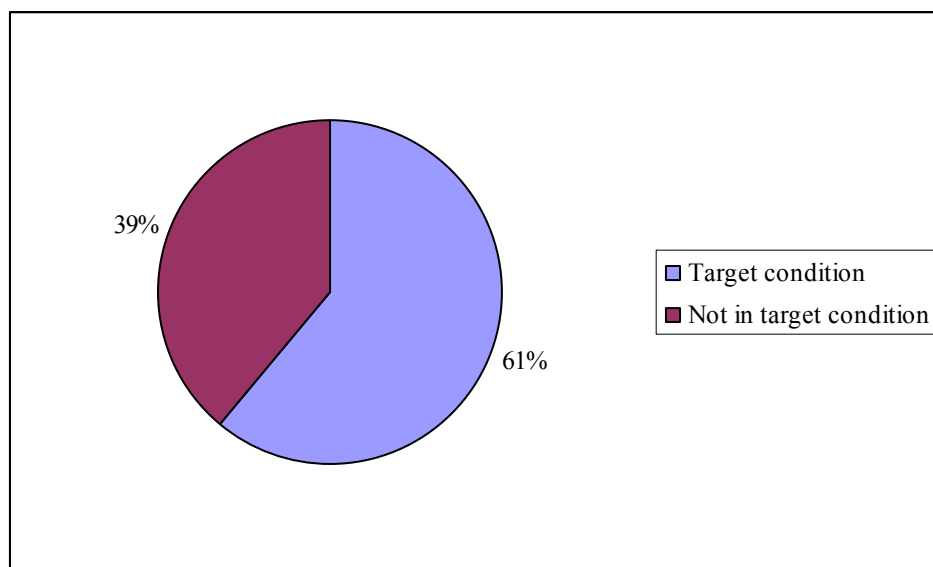


Figure 2.6: Percentage of urban SSSIs (by area) in target condition

Figure 2.6 shows that 61 % of the area of urban SSSIs is in target condition. Urban SSSIs are not currently meeting the PSA target of 95% of SSSIs as a whole to be in a favourable or unfavourable recovering condition by 2010.

4.4.4 Condition by habitat type

An analysis of the condition of SSSIs by habitat type is shown in Appendix II and summarised below.

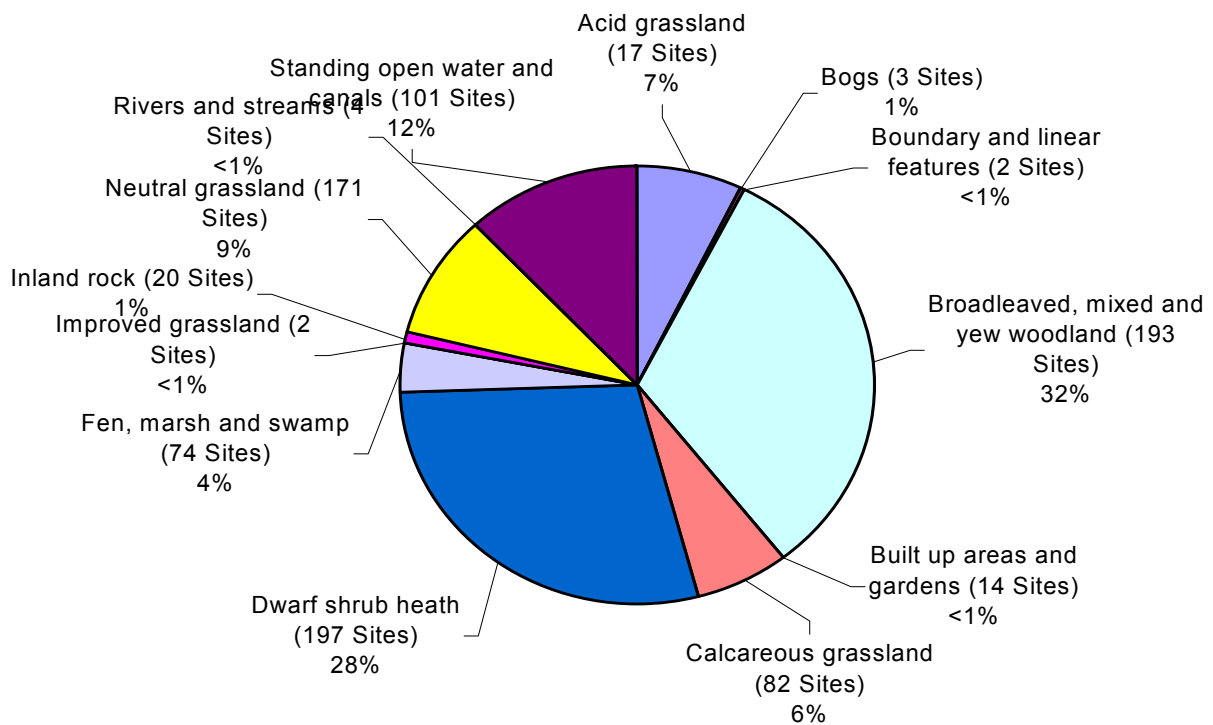


Figure 2.7: Percentage area of each habitat type

Figure 2.7 shows the proportion (by area) of each habitat type for urban SSSIs. Broadleaved, mixed and yew woodland (35%) and dwarf shrub heath (28%) cover the largest area for urban SSSIs.

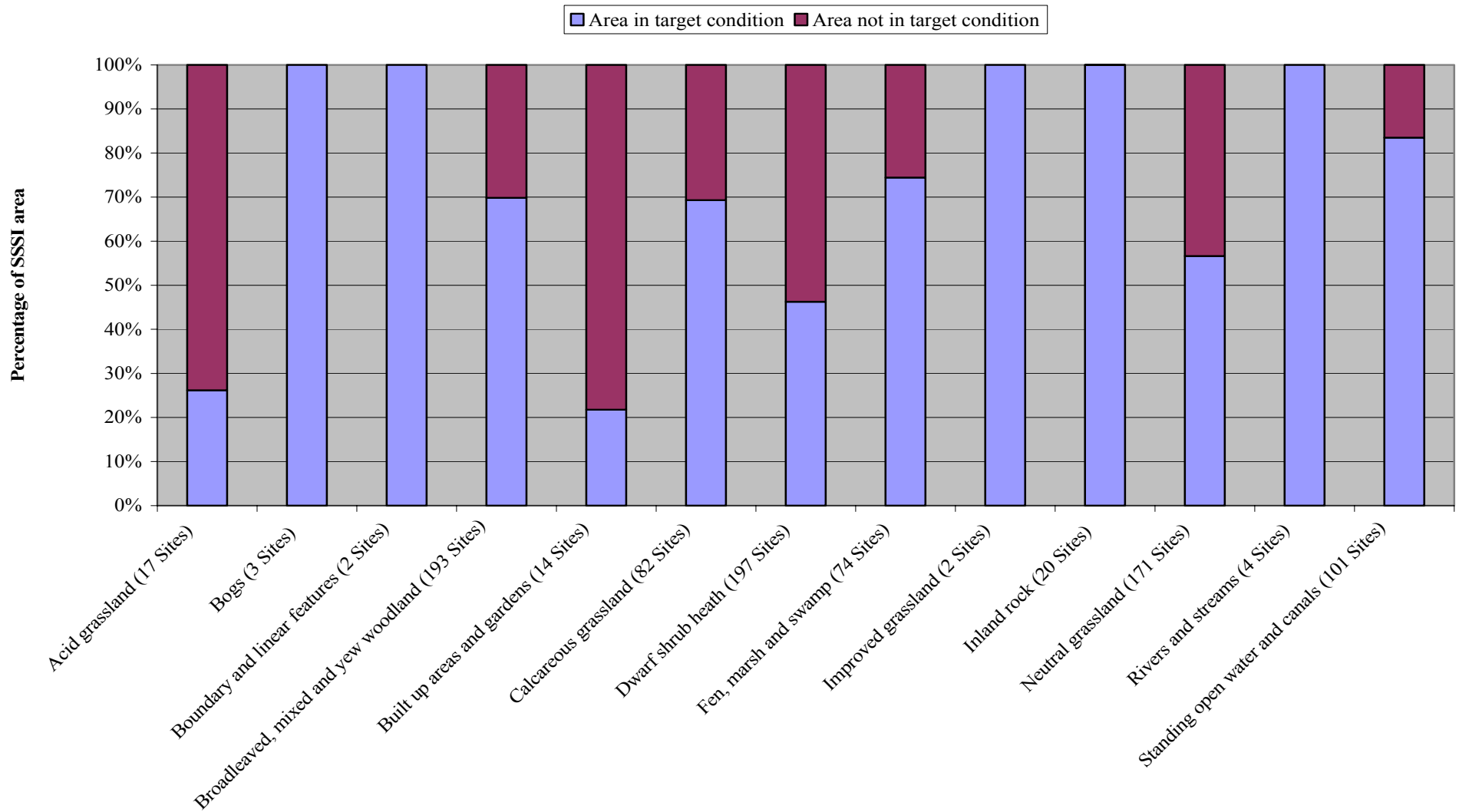


Figure 2.8: Percentage of SSSI (by area) in target condition for each habitat type

Figure 2.8 shows the condition of urban SSSIs by habitat type, it is noted that:

- Five of the habitat types (bogs, boundary and linear features, improved grassland, inland rock and rivers and streams) have 100% of their area in target condition.
- The habitat types that are in the worst condition in urban areas are acid grassland (74% of area not in target condition) and built up areas and gardens (78% of area not in target condition).

Built up areas and grasslands and acid grassland should therefore be seen as priorities for action in improving the conservation status of urban SSSIs.

As broadleaved, mixed and yew woodland and dwarf shrub heath cover the greatest area it is important to monitor their condition. Figure 2.8 shows that:

- 70% of the area of broadleaved, mixed and yew woodland is in target condition.
- 46% of the area of dwarf shrub heath is in target condition.

Dwarf shrub heath falls well below meeting the PSA target and should be seen as a priority for urban SSSIs.

4.5 Achieving the objectives

Based upon this analysis, three habitat types have been identified as priorities for SSSIs within urban areas. In the English Nature report *England's best wildlife and geological sites* the reasons for a decline in certain habitat types are described. On the basis of the proposals of this report, the following recommendations should be made for urban SSSIs in particular.

4.5.1 Acid grassland

Lowland acid grassland SSSIs in unfavourable condition are largely affected by lack of grazing, with many sites needing scrub and weed control. The Grazing Animals Project (GAP) recognises that current grazing practices threaten the maintenance of the favourable condition of many SSSIs. Initiating grazing on small, isolated sites has been identified as a problem and this is likely to be a particular issue in urban areas. GAP's Local Grazing Scheme (LGS) promotes the adoption of sustainable grazing practices by the formation of partnerships between conservation organisations and local farmers. The Urban Workstream Group could form a partnership with GAP in order to promote sustainable grazing within urban SSSIs.

4.5.2 Built up areas and gardens

Whilst no recommendations are made within the English Nature report for this habitat type, this is clearly an area that requires attention. This report has made several suggestions of how to improve the biodiversity value of built up areas. With respect to gardens, this report has made proposals in sections T2 and T5.

4.5.3 Dwarf shrub heath

Lowland heath has declined due to changes in agricultural practices and a subsequent lack of management. The condition of these sites can be improved by removal of dense scrub and bracken and the re-introduction of grazing.

4.6 Conclusion

The following recommendations are suggested for this indicator:

Definition of the indicator: This indicator is a good method for assessing the biodiversity value of urban areas, particularly as there are reliable data available on the condition of urban SSSIs. No changes need to be made to the indicator or objective.

Measuring the indicator: Defra's baseline assessment methodology could be improved by adopting an alternative way of defining which SSSIs are urban. A new methodology has been proposed that considers the proportion of a SSSI's border that is adjacent to an urban area.

Priorities for action: Using the revised methodology, it was found that the habitats in urban SSSIs that are in the worst condition are acid grassland, built up areas and gardens and dwarf shrub heath. Active management of these sites will be required in order to improve their condition.

Potential new partners: The Grazing Animals Project could provide valuable advice to the Urban Workstream Group in relation to improving the condition of SSSIs through effective grazing regimes.

5 Populations of birds in towns and gardens (T3)

Objective: To ensure that urban areas contribute fully to the goals of biodiversity conservation and enhance the quality of life of people that live there by maintaining town and garden bird populations.

5.1 Introduction

5.1.1 Wild bird indicators

Following the Rio Summit in 1992, developing indicators towards sustainable development was identified as a strategic goal in the Agenda 21 document; “indicators for monitoring progress towards sustainable development are needed in order to assist decision-makers and policy-makers at all levels”. In 1999, the UK Government published the document *Quality of Life Counts* which listed populations of wild birds as one of the fifteen headline indicators of quality of life in Britain. The importance of bird populations to members of the British public is clear from the large membership of the Royal Society for the Protection of Birds (RSPB).

5.1.2 Why this is a good indicator

Measuring the trends in bird populations is a reliable method for assessing biodiversity in urban areas since bird species are high in the food chain. Changes in their populations can therefore be used to track changes in the state of insect and plant biodiversity. The vast majority of habitats in the UK are inhabited by bird species that are adapted to living under the conditions presented. Because birds cover such a wide variety of habitats, they are ideal for assessing biodiversity since generic survey methods can be applied across all habitats thus allowing data to be pooled for analysis and put into context. Birds are probably the group for which most data exist since there have been many long-term studies carried out and we have a good understanding of the pressures put upon bird populations today. This further adds to the value of monitoring populations of birds as an indicator.

5.1.3 State of the UK’s bird populations

Between 1970 and 2002, seven common UK bird species demonstrated declines of more than 80% and an additional twelve species showed declines of more than 50% (RSPB website). The UK wild bird indicator shows that between 2000 and 2002, the indicator for all species showed a slight decline (RSPB, 2003). The UK wild bird indicator also has habitat specific indicators for farmland birds and woodland birds. During the period between 2000 and 2002 the farmland bird indicator declined by 42% and the woodland bird indicator declined by 15%.

Through implementing the measures suggested in the UK Biodiversity Plan (UKBAP) several species that were at risk of extinction have shown increases in their populations, eg bittern *Botaurus stellaris*, corncrake *Crex crex*, stone-curlew *Burhinus oedipnemos* and circl bunting *Emberiza circlus*. Unfortunately, the two birds most related to urban habitats that have been declining most rapidly, the house sparrow *Passer domesticus* and starling *Sturnus vulgaris*, are continuing to do so.

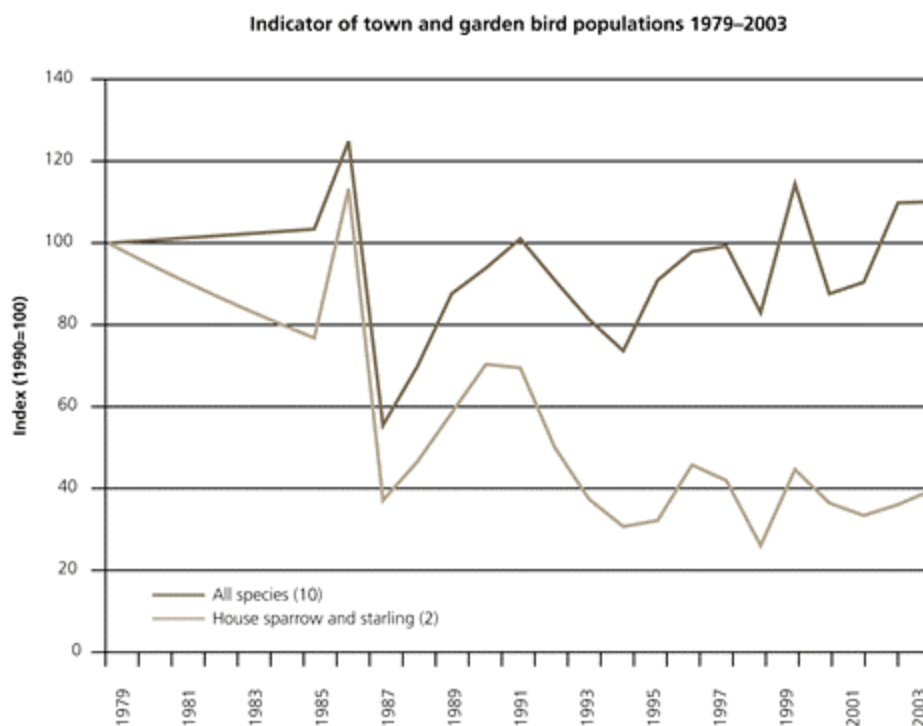
Despite the popularity of birds among members of the public, little is known about birds of urban areas and the BTO has recently reported that a number of common species have undergone population declines over the last 5 years in urban areas (London's Birds Project website).

5.1.4 Purpose of this chapter

The objective for the urban wild bird indicator at present is to ensure that the populations of birds in urban areas are maintained so that members of the public in those areas can enjoy them. In this section, we will seek to improve the value of this indicator by suggesting changes to the data used to assess populations of birds in urban areas such that the data incorporate both gardens and local green space and reflect birds in urban areas throughout the year. We will also suggest ways to achieve the objective both for increasing urban bird populations and increasing the awareness of the general public so that they can appreciate the birds around them more.

5.2 Defra's baseline assessment

Defra's baseline assessment for populations of urban wild birds was based on data collected by volunteers for the Big Garden Birdwatch organised by RSPB. This national survey has been running since the late 1970s. The baseline assessment for this indicator was based on ten common garden bird species, which are listed later in this chapter. The baseline assessment published a figure (Figure 3.1), which showed the trend in the populations of the ten bird species between 1979 and 2003 and also the trends for house sparrow and starling.



Source: BTO, RSPB
Number of species in indicator shown in brackets

Figure 3.1: The changes in bird populations in towns and gardens between 1979 and 2003. This figure also shows a decline in house sparrows and starlings. Figure from *Measuring progress: baseline assessment*, Defra, 2003

Figure 3.1 shows that populations of birds in towns and gardens have varied from year to year since 1979. Between 1979 and 2003 the populations of house sparrow and starling suffered a 60% decline whilst those of all ten bird species increased by 10% above the 1979 baseline (although this was not significant). The baseline report suggested that the decline in house sparrows and starlings could be due to increased predation, changes in food supply and air quality, disease and loss of nest sites.

5.3 Comments on baseline assessment methodology

5.3.1 Bird survey data

Although monitoring populations of birds is a very good indicator of biodiversity for urban areas, there are several problems with the approach taken to date and there are a number of other factors that could be included to make this a much more robust and representative indicator. The Big Garden Birdwatch, which was the survey used to produce the baseline assessment, is a very good survey for involving the community in collecting scientific data and for providing a general indication of bird populations across the UK during winter. However, if bird populations in urban areas are to be used as an indicator of biodiversity, the Big Garden Birdwatch is rather limited in its representations and there are several other more appropriate surveys that could be utilised.

The Big Garden Birdwatch survey is only carried out once per year, in January, and therefore only represents winter bird populations. Although the guidelines for the survey state that members of the public can survey the birds in their local parks etc, the majority of literature associated with the survey assumes that most records will come from gardens. This vastly limits the species that would be recorded and if using this survey alone as an indicator of bird populations in urban areas, omits entire habitats from the analysis. This is particularly important since people with no gardens of their own may use local green space more often and therefore the birds in these areas are of high value.

The Big Garden Birdwatch does however provide an opportunity to increase the number of people that benefit from bird populations by increasing interest and knowledge in the community. The survey allows members of the general public to become involved in a national survey rather than the birdwatching community who are usually targeted for more specialist surveys requiring a greater amount of commitment.

5.3.2 Species representations

The ten bird species selected to form the baseline assessment of urban areas are a good representation of common garden birds. However, species commonly associated with local green spaces or parks are perhaps underrepresented as well as some species that depend almost entirely on human habitation, such as house martin *Delichon urbica* and swift *Apus apus*. The addition of other species to the current list is discussed in the recommendations section of this chapter.

5.3.3 Data presentation

The RSPB's Big Garden Birdwatch from which the data for Defra's baseline assessment was derived is a survey that has been carried out by volunteers. Each year people record birds that visit their gardens and local parks within an hour period on a particular weekend in

January. This will therefore include gardens within rural as well as urban areas. Gardens in a rural setting are often secluded and it is not appropriate for them to be included within the towns, cities and development workstream. Trends discussed in the baseline assessment are not representative of urban areas at all but represent private gardens in general. Continuing with this approach to the indicator would not achieve the objectives, as trends in urban areas are not being monitored. Also, as it currently stands, data from the entire UK has been included. Since the biodiversity strategy is targeted towards England, data from English sites only should be included in the analysis.

The presentation of the data in the baseline assessment report (Defra, 2003) is also misleading in that house sparrow and starling are presented in both categories of the graph. Since these species are continuing to decline whilst the other species are clearly increasing (by 10% even when starling and house sparrow are included), it would have been more helpful if the remaining eight species were plotted separately from house sparrow and starling.

5.4 Recommendations for the future

5.4.1 Definition of the indicator and objective

As discussed above, the indicator “UK populations of birds in towns and gardens” may be misleading since this section of the strategy is entitled towns, cities and development. Many gardens occur in rural areas and may be more likely to be associated with other sections like agriculture or woodland. Furthermore, England’s Biodiversity Strategy refers to England only and this should be made clear in the indicator. It is recommended that the wording of the indicator be changed to reflect more accurately the aims of this section. The indicator should be redefined as “Populations of birds in towns and urban gardens in England”.

At present, the objective relating to this indicator is not ambitious since it only aims to **maintain** the populations of birds in towns and gardens. This objective could be made much more positive by aiming to increase the populations of the birds in towns and gardens, particularly since house sparrows and starlings have undergone such dramatic declines over the last 20 years.

5.4.2 Alternative methods for measuring the indicator

Bird survey data recommendations

There are a number of national bird surveys organised by the RSPB and BTO that would provide more representative information on the populations of birds in towns and cities. The methodology, nature of data collected and the benefits of using these surveys are described below for those most likely to be the best indicators of bird populations in towns and cities.

(i) Breeding Bird Survey

The baseline assessment suggested that Breeding Bird Survey (BBS) data could be used in the future to monitor bird populations. The BBS is funded by the BTO, RSPB and JNCC although the BTO co-ordinate the surveys and maintain the database. The BBS is a national survey that involves the survey of 1km squares of the National Grid chosen on the basis of a stratified, random sampling design. Surveyors are volunteers that visit the grid square three

times during the breeding season to walk transects across the site recording birds that are seen and heard as well as their behaviour. BBS surveyors record all species that are seen or heard but a number of species can be extrapolated as was done for the Big Garden Birdwatch. Because BBS surveyors also collect behavioural data, the likelihood of species breeding can also be estimated for most species. BBS data would provide a means of monitoring birds in local green spaces and brown field sites, which are not associated with gardens.

The BBS survey is carried out on a large scale across the UK and there are a large number of BBS survey grid squares associated with urban habitats in England that could be used as an indicator of the wild bird populations. Table 3.1 below shows the number of BBS squares that have been surveyed in each region of England over the last three years that the survey was carried out and Figure 3.2 shows those BBS squares in England that have more than 50% of their area in urban areas. In total 11% of BBS squares in England contain more than 50% urban habitat. This totals 472 BBS squares which is a large enough sample size for data analysis.

Table 3.1: The numbers of BBS squares surveyed in each region of England during the last three surveys. BBS was not carried out in 2001 because of foot and mouth disease (BTO, 2003)

Region	Number of BBS squares covered in each year		
	2000	2002	2003
North West England	196	179	196
North East England	54	56	65
Yorkshire and the Humber	137	132	138
East Midlands	149	125	151
East of England	257	256	242
West Midlands	168	136	146
South East England	385	367	378
South West England	293	279	292
London	62	59	63
Total:	1701	1589	1671



Figure 3.2: Breeding Bird Survey 1km squares in England that contain more than 50% urban habitat.

(ii) Garden Birdwatch

Garden Birdwatch is a survey co-ordinated by the BTO and CJ Wildbird Foods. The data collected are similar to that of the Big Garden Birdwatch except that the surveys are carried out weekly and are conducted all year round. Because of the larger amount of data collected, Garden Birdwatch surveys would provide a more reliable indicator of urban bird populations in gardens than the Big Garden Birdwatch. Since Garden Birdwatch is carried out all year round, a greater range of species are also covered including birds that breed in gardens and migrants. Urban data would be easily extrapolated since surveyors have to state whether they live in urban or suburban areas allowing these sites to be separated and thus the data could be more meaningful and put into context. There are 2094 10km squares in Britain that have at least one household that is involved in the survey. Figure 3.3 shows the extent of coverage of Garden Birdwatch data for each 10km square in the UK and it can be seen that urban areas are well represented.

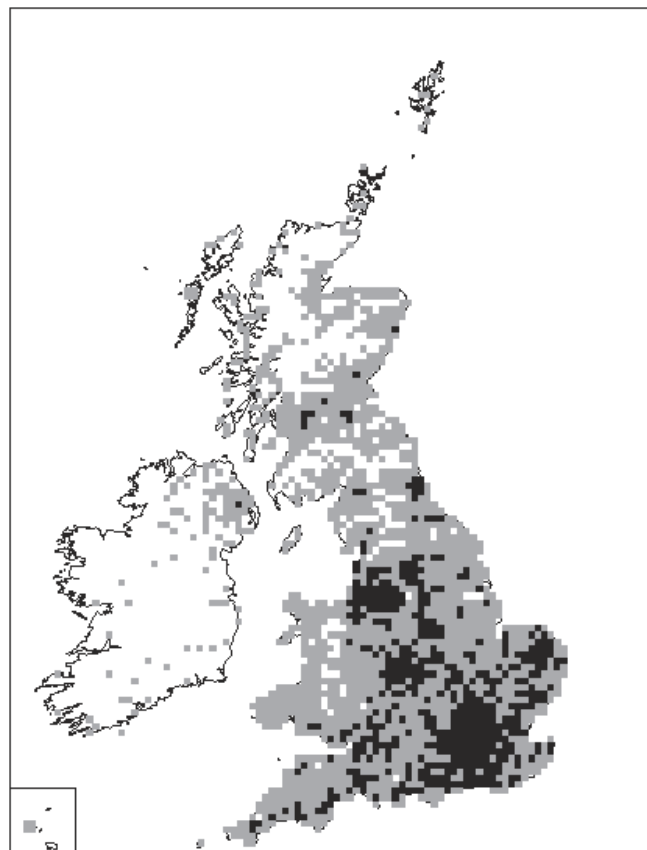


Figure 3.3: Garden Birdwatch coverage in the UK with squares with less than 20 gardens shaded grey and those with more than 20 gardens shaded black (BTO website)

(iii) Constant Effort Sites (CES)

Data from CES would be particularly valuable since these data provide information on the breeding condition of birds as well as the numbers of juvenile birds. CES is part of the ringing scheme which operates between May and August and involves ringers visiting their site twelve times (once every 10 day period) and putting up a specified number of nets, each in a specified location for 6 hours. Because of the constant effort, these data track changes and trends of birds particularly well and can accurately estimate breeding success. Figure 3.4 below shows the locations of all CESs in the UK. However, the figure suggests that it is

unlikely that enough of these sites fall within truly urban areas to produce adequate data to inform the indicator.

**Distribution of CES sites in Britain and Ireland
1997-1998**

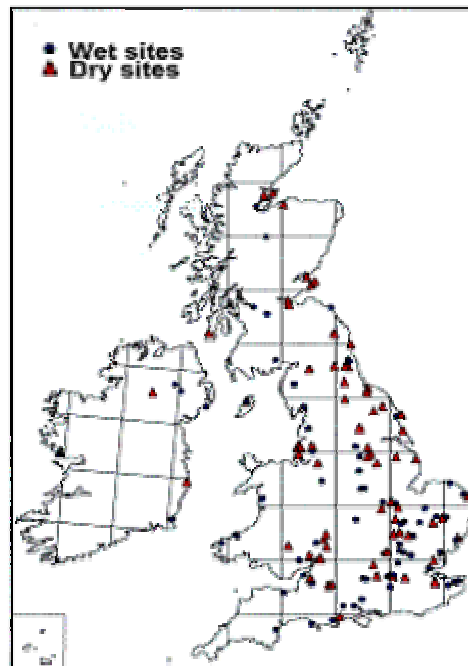


Figure 3.4: Locations of CESs in the UK (BTO website)

(iv) London's Birds Project

The BTO's London Bird Project was specifically designed to monitor bird populations in urban areas. The types of sites that were targeted were parks, public gardens and cemeteries. As well as data gathered from volunteers, BTO fieldworkers carried out some of the surveys in areas that were not well covered by volunteers. Obviously, this survey only applies to London but the data could be extremely useful as a monitoring method if pilot studies were to be carried out to attempt to increase urban bird populations. At present, the BTO have no intention of repeating the BTO London Bird Project although it has not been ruled out. It is likely that if there were a need for this survey to be repeated as part of an initiative to increase bird populations in towns and cities, it would be repeated.

Species representation recommendations

Although the species that were used to inform the indicator in the baseline assessment report (Defra, 2003) were a good representation of species of urban gardens, those species that are usually associated with urban green spaces (parks, public gardens or cemeteries) or brownfield sites were underrepresented. There were also some species that are closely associated with human habitation that were omitted. It is recommended that a new species list be composed that combines common garden birds with those of public green space and that a range of species are represented that cover most of the foraging and nesting niches offered in urban habitats. Consideration should also be given to UKBAP species and red list species. When presenting results, species groups can be pooled depending on their niche in

urban habitats. Table 3.2 below shows the species that were represented in the baseline assessment and those that it is recommended should be added to the list.

Table 3.2: Species that should be used to inform the indicator. Those shown in bold are those that were not used in the baseline assessment but that should be added to the species list. Preferred habitat and main prey items are shown to demonstrate the coverage of niches.

Species		Preferred habitat in urban areas	Main food source	Species status in the UK
Sparrowhawk	<i>Accipiter nisus</i>	Gardens Green space	Birds	
Collared dove	<i>Streptopelia decaocto</i>	Gardens Green space	Seeds, fruits, herbs, invertebrates	
Tawny owl	<i>Strix aluco</i>	Green space	Small mammals	
Swift	<i>Apus apus</i>	Built areas Green space Brownfield sites	Aerial insects	
Great spotted woodpecker	<i>Dendrocopos major</i>	Gardens Green space	Insects from trees	
Skylark	<i>Alauda arvensis</i>	Green space Brownfield sites	Seeds, insects	UKBAP Red list
House martin	<i>Delichon urbica</i>	Built areas Green space	Aerial insects	Amber list
Pied wagtail	<i>Motacilla cinerea</i>	Gardens Green space Brownfield sites	Invertebrates	
Dunnock	<i>Prunella modularis</i>	Green space Gardens	Invertebrates and seeds	Amber list
Robin	<i>Erithacus rubecula</i>	Green space Gardens	Invertebrates, fruit and seeds	
Black redstart	<i>Phoenicurus ochruros</i>	Brownfield sites	Invertebrates	Schedule 1 Amber list
Stonechat	<i>Saxicola torquata</i>	Brownfield sites	Invertebrates	Amber list
Blackbird	<i>Turdus merula</i>	Green space Gardens	Invertebrates and fruit	
Song thrush	<i>Turdus philomelos</i>	Green space Gardens	Invertebrates and fruit	UKBAP Red list
Whitethroat	<i>Sylvia communis</i>	Green space Brownfield sites	Insects and fruit	
Blackcap	<i>Sylvia atricapilla</i>	Gardens Green space	Insects and fruit	
Willow warbler	<i>Phylloscopus trochilus</i>	Gardens Green space	Insects and fruit	Amber list
Goldcrest	<i>Regulus regulus</i>	Gardens Green space	Insects	Amber list
Spotted flycatcher	<i>Muscicapa striata</i>	Gardens Green space	Insects	UKBAP Red list
Blue tit	<i>Parus caeruleus</i>	Gardens Green space	Insects, fruit and seeds	

Species		Preferred habitat in urban areas	Main food source	Species status in the UK
Magpie	<i>Pica pica</i>	Gardens Green space Brownfield sites	Opportunistic	
Carrion crow	<i>Corvus corone</i>	Gardens Green space	Opportunistic	
Starling	<i>Sturnus vulgaris</i>	Gardens Green space Built areas	Invertebrates, seeds and fruit	Red list
House sparrow	<i>Passer domesticus</i>	Gardens Green space Built areas	Seeds, fruits and invertebrates	Red list
Chaffinch	<i>Fringilla coelebs</i>	Gardens Green space	Seeds and invertebrates	
Greenfinch	<i>Carduelis chloris</i>	Gardens Green space	Seeds and invertebrates	
Linnet	<i>Carduelis cannabina</i>	Green space Brown field sites	Seeds	UKBAP Red list
Bullfinch	<i>Pyrrhula pyrrhula</i>	Gardens Green space	Seeds, buds, shoots and invertebrates	UKBAP Red list

Data presentation recommendations

In view of the comments in the Data Presentation section earlier in this chapter, it is recommended that survey data for urban and rural areas (ie gardens) is separated and only that for urban gardens is analysed. It would also be helpful when analysing data to separate urban from suburban areas, which may help to inform targets and where to implement strategies to achieve the objectives. As mentioned earlier in this chapter, since the Biodiversity Strategy is aimed at England, data from England only should be used in the analysis.

It would be helpful to present data for individual species or at least for species occupying similar niches, ie combining the results of birds that feed on aerial insects, on one figure. This would highlight any problems associated with food availability or loss of nesting sites and these issues could be addressed. If data are to be presented on figures for combined species, a table should also be provided with percentage change in the population for each species.

5.5 Achieving the objectives

For those species that are included on the UKBAP or local BAPs, the proposed actions that are provided in the plans for conserving the species will be applicable to urban habitats and are likely to benefit other species not listed on the plans. In the majority of cases these actions should be at least in the process of being implemented and therefore should help towards achieving the aims of the Urban Workstream Group. However, if these actions are not being implemented in urban areas, this should be addressed and resolved. This would require coordination with the UK Biodiversity Partnership, whose role is to bring together partners involved with the UKBAP. It may be necessary for the Urban Workstream to promote urban habitats and ensure that they are given a high priority when developing both the UK and Local BAPs.

The actions needed to achieve the objectives of the Urban Workstream Group will vary depending on the species involved. In some cases, the causes of the decline of a species are not known and the main action will be to find out what factors may be involved in the decline. This may require a specific survey or questionnaire targeted towards that species. Starlings in particular would benefit from this type of approach in urban areas since they are undergoing steady decline but the reasons for their decline are as yet unknown. Declining summer migrants such as the willow warbler and whitethroat are also declining and would require research into the reasons for their decline before work can begin on reversing this trend in urban areas.

In other cases the causes of population declines are known and members of the public, local authorities, schools and businesses need to be made aware of the situation and what they can do to help. Swifts would certainly require this type of approach since their long term success depends on the provision of nesting sites on buildings.

As well as aiming to increase the populations of birds in urban areas, attempts should be made to increase awareness of members of the public with regard to birds. It is likely that as public awareness increases, people will start to work towards increasing their local bird populations by feeding and providing nest sites.

There are numerous schemes that are currently in place, which may help to increase bird populations in urban areas and encourage members of the public or commercial businesses to give more consideration to biodiversity. There are leaflets and websites that promote these schemes but the general public, commercial businesses and schools need to be made aware of these and how they can get involved. It would be beneficial for the Urban Workstream Group to set up an urban bird project or website where members of the public can ask questions, obtain conservation information or find out about different projects in their local area. The Urban Workstream Group should target schools, industries and local authorities with information on how they can contribute to biodiversity. Advice could be sought from the RSPB on aspects that could be usefully included within the National Curriculum.

Below are some examples of useful projects and initiatives that have been carried out on urban birds to date. The structure of these projects could be used as a basis for carrying out similar projects targeted towards other species that are in decline for unknown reasons or as a means of providing information on particular species or groups of species to members of the public.

5.5.1 Species-specific projects

(i) The house sparrow project

The house sparrow project was launched in December 2002 and was organised by the BTO and CJ Wildbird Foods (BTO, no date). This species was targeted for a specific project because the population has fallen from 12 million pairs in the early 1970s to 6-7 million pairs now. The aim of the project was to find out what may be causing the decline of the house sparrow by sending out questionnaires to Garden Birdwatch volunteers and other interested parties. The project found that house sparrows were most likely to be associated with houses that had gaps in the roof, but that 25% of respondents had filled these gaps during the previous 10 years. It also found that house sparrows were more likely to be associated with

houses that provided bird food all year round rather than not at all or only occasionally. The project is currently carrying out surveys in towns and cities to find out which areas are most valuable to house sparrows.

This type of project is beneficial in that it has the potential to confirm which factors are causing the decline of urban birds. Projects of this type would probably also benefit from targeting members of the public that are not currently involved in surveys like Garden Birdwatch through schools or garden centres. In this way, awareness of birds is also increased whilst collecting the data.

(ii) London's swifts

London's swifts are an organisation offering free advice to members of the public, local authorities, governments, NGO's, environmental organisations and developers who want to conserve and encourage swifts (London's swifts website). They offer a service where they can visit sites and provide advice on retaining swift colonies and encouraging them. The main cause of the decline in swift populations is the loss of nest sites as buildings are demolished and replaced with buildings that cannot host swifts. London's swifts have a very good website, which offers advice on nest boxes and encouraging swifts. It also suggests ways in which schools can get involved with swift conservation.

Swifts are particularly important as indicators of urban bird populations because they rely almost exclusively on humans to provide nesting sites. Action towards increasing swift populations should be to encourage local authorities to put swifts on the LBAP and providing developers with details of the London's swifts website. A similar website has also been set up for black redstarts and their conservation (Black redstart website). This should be advertised in the same way as the swift website.

5.5.2 Targeted recipients

(i) The BTO-Hansen awards

The BTO-Hansen awards are targeted towards the industries and encourage registered businesses to promote and conserve wildlife on their sites (BTO website). The challenge consists of three parts: community, conservation and birds. The businesses have to show evidence on how they have involved the community in their conservation work and submit details of the birds that use their site (often through carrying out the national BTO surveys). A quarterly bulletin is produced which gives details of national surveys, conservation advice, achievements of businesses that have done successful conservation work and gives the conservation highlights of each quarter.

The BTO-Hansen challenge is an excellent way to get industries involved in conservation and the quarterly bulletin is very well written and encouraging. The challenge should be advertised more widely to encourage more businesses to sign up particularly those that are associated with urban areas. This type of challenge should also be set up for schools and towns.

(ii) Big Schools Birdwatch

The RSPB's Big Schools Birdwatch is carried out in much the same way as the Big Garden Birdwatch but is aimed at school children (RSPB website). As well as giving an indication of the state of urban birds in schools, this survey serves to encourage children to look at birds more closely and take an interest in the bird populations around them. This survey should be widely advertised and all schools should be persuaded to sign up and attach the survey to part of the National Curriculum.

5.6 Conclusion

The populations of birds in urban areas is a very good indicator of biodiversity and is particularly important given that the populations of birds in the UK is one of the government's fifteen headline indicators for quality of life. The following recommendations are suggested for this indicator:

Definition of the indicator and objective: It is recommended that the indicator be changed to "Populations of birds in towns and urban gardens in England". We would also recommend that the main objective be re-worded so that the aim is to increase the populations of birds rather than maintain them in their present state.

Measuring the indicator: Given the limited survey period of the Big Garden Birdwatch, it is recommended that a combination of Garden Birdwatch and Breeding Bird Survey data be used as well as an amended list of species analysed to more accurately reflect birds that use urban areas. The way that the data is presented should also be amended so that trends can be monitored for species occupying different niches within urban areas.

Priorities for action: It is particularly important that as well as attempting to increase the populations of birds in urban areas, the Urban Workstream Group works towards increasing the general public's knowledge of urban birds and how they can play a role in their conservation. This would mainly be achieved through maintaining a website with links to other specialist sites, setting up challenges similar to the BTO-Hansen challenge and distributing leaflets to schools and local authorities. There are a number of leaflets currently available from BTO and RSPB, which explain how members of the public can get involved in conservation. These should be distributed in public areas such as garden centres and libraries.

Potential new partners: The Urban Workstream Group would benefit from input from an ornithological organisation to advise on issues relating to urban birds. The BTO would be particularly useful since they run the two surveys that have been recommended for monitoring bird populations as well as the BTO-Hansen challenge. The UK Biodiversity Partnership should be consulted in relation to incorporating urban habitats into the UK and Local BAPs.

6 Ease of access to local green space and countryside in England (T4)

Objective: To maintain the high proportion of people who have access to green space and the countryside. To increase the proportion of those having access who actually visit local green space and countryside.

6.1 Introduction

Green spaces comprise parks and gardens, recreation grounds, village greens, nature reserves, allotments, playgrounds and sports grounds. These areas provide an important resource for people living in urban areas by allowing people to easily and safely enjoy open spaces close to where they live. The Office of the Deputy Prime Minister (ODPM) states that:

“Well-designed and maintained parks and green spaces have an essential role to play in enhancing the quality of life in urban areas.”

However, historically green spaces have been neglected and successive local government restructurings have led to a loss of status of parks departments. In response to this, several organisations have been set up with the aim of promoting the restoration of green spaces. *The England Biodiversity Group’s Annual Stock Take 2002-2003* report identifies several areas of progress relating to green space. These include the establishment of CABI Space and the Heritage Lottery Fund green space programme.

CABI Space is a division of the Commission for Architecture and the Built Environment. It works with local authorities and other bodies to improve the design, management and maintenance of parks and public space in urban areas. One of their goals is to ensure that every person in England has easy access to well-designed and well-maintained public space. The Public Parks Initiative funded by the Heritage Lottery Fund facilitates the restoration of parks and gardens. This initiative aims to improve public access to green space, particularly in deprived areas.

Groundwork has also been actively involved in promoting green space within urban areas. They work with local people in order to turn derelict land into community gardens, allotments and parks. Involvement of local people is a priority for Groundwork, and by providing small grants in the form of ‘Living Spaces’ awards, they aim to improve and create open spaces within urban areas.

6.1.1 Access to green space

Providing accessible green spaces has been identified as an important aim for local authorities. *The England Biodiversity Group’s Annual Stock Take 2002-2003* states that:

“Accessible natural green space targets are being implemented as a key component of a number of open space strategies across the country.”

Improving access should encourage more people to visit their local green spaces. Government policy set out in the report ‘*Living places – cleaner, safer, greener*’ (2002) describes a wide range of proposals relating to green spaces, one of which is to encourage

more community engagement. Monitoring the proportion of people who visit green space and the countryside will indicate whether the community is making full use of parks and gardens.

Visits to green spaces are made for a wide range of purposes including recreational activities, dog walking and meeting people. In April 2004, the Government published *The Egan Review – Skills for Sustainable Communities*. They offer “well-maintained, local, user-friendly public and green spaces with facilities for everyone including children and older people”. In order to ensure that people visit their local green spaces then it will be necessary to ensure that these facilities are maintained.

6.1.2 Why this is a good indicator

Parks and green spaces provide a valuable resource for local communities. It is important that people living in urban areas have easy access to local green space and the countryside for their well-being. These areas provide access to an attractive environment for people living in built up areas as well as offering a place for physical activities and learning about the natural world. They also serve an important ecological function, providing a refuge for wildlife within towns and cities. Urban areas are generally species-poor, therefore parks provide an essential habitat for maintaining urban wildlife.

6.1.3 Purpose of this chapter

The towns, cities and development section of *Working with the Grain of Nature – A Biodiversity Strategy for England* sets several aims including:

- To ensure that biodiversity conservation is integral to sustainable urban communities, both in the built environment and in parks and green spaces.
- To value further and enhance people’s own contributions to improving biodiversity in towns and cities and to increase their access to it.

This indicator aims to monitor access to green spaces to ensure that the second of these aims is being realised. In order to ensure that the first is met the biodiversity value and conservation efforts within green spaces will also need to be assessed.

6.2 Defra’s baseline assessment

Defra’s baseline assessment is based upon a doorstep study, *Survey of Public Attitudes to Quality of Life and to the Environment, 2001* published by Defra. The survey asked people if they were within easy walking distance of local green spaces or countryside and whether they visited green spaces or countryside, excluding cases when they were just passing through. The survey found that 84% of respondents have easy access to the countryside and that 73% of people visit these areas (Figure 4.1). From this evaluation it was concluded that “the vast majority of people have access to green space or countryside”.

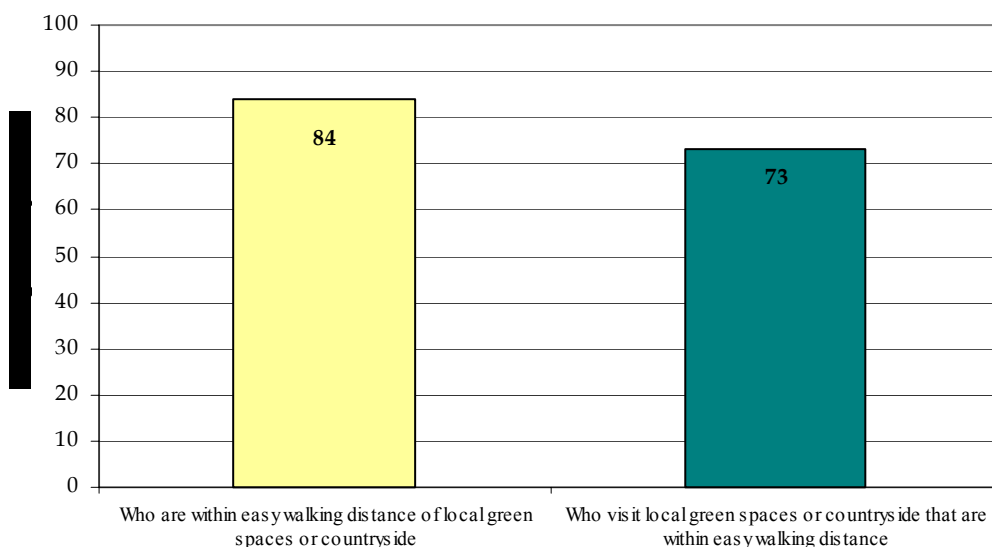


Figure 4.1: Ease of access to local green space and countryside from *Measuring Progress: The Baseline Assessment*, Defra, 2003

6.3 Comments on baseline assessment methodology

Defra’s baseline assessment provides a useful foundation for assessing the accessibility of green spaces. However, there are several ways in which the survey methodology could be improved and the scope of the assessment broadened in order to provide a more complete picture of how green spaces can be used as a biodiversity indicator for urban areas.

6.3.1 Measuring the indicator

Defra’s baseline assessment currently considers both accessibility of green space and visits to these areas.

6.3.2 Access to green space

The question “Are you within easy walking distance of local green space or countryside?” used in the survey is subjective and does not provide any quantifiable measures. ‘Easy walking distance’ is defined as ‘without a car or other transport’ and could be interpreted differently by different people. Whilst some people would consider a 30 minute walk to be an easy walking distance, others would not consider this to be so.

The baseline assessment does not fully utilise the data available from the *Survey of Public Attitudes to Quality of Life and to the Environment, 2001* published by Defra. Further detail could be included in order to give a more accurate picture of accessibility of green spaces.

6.3.3 Visits to green space

The baseline assessment asks whether people ‘visit local green spaces or countryside’ but does not provide any indication of how often people visit these areas. People that visit once a year would be considered in the same way as those who used the area every day.

6.3.4 Scope of the assessment

The current baseline assessment only investigates access to local green space and whether people visit these areas. There are many other factors that could also be examined in order to widen the scope of the assessment. These include:

- What people are using green spaces for
- The condition of green spaces
- The biodiversity value of green spaces

6.3.5 Function of green space

Defra’s baseline report states that the ability to access green space “plays an important role in people’s quality of life, with the opportunity it gives for relaxation, exercise and the appreciation of nature”. However, the assessment does not provide any data to show how people are using green spaces. As green space incorporates a range of amenities from children’s playgrounds to large parks it would be interesting to see what use people are making of local green space.

6.3.6 Condition of green space

The assessment does not consider the condition of green spaces or facilities provided for the public. Several organisations have highlighted the fact that many parks are of poor or declining quality.

- CABI Space have revealed that many green spaces are in a poor condition, with 30% of the public saying that they will not use parks, often because they feel unsafe.
- *The Egan Review: Skills for Sustainable Communities* highlights the skills gap within the sustainable community sector. Following this report, CABI Space published *Parks Need People* which shows that the number of professionals who manage and maintain parks and green spaces are in decline due to this skills shortage.

To give a true indication of the value of green spaces it is important to consider the condition of these areas as well as their accessibility.

6.3.7 Biodiversity value of green space

This indicator does not include an assessment of the biodiversity value of green spaces and the countryside. Parks and green spaces are often intensively managed and heavily used for sport or informal recreation and therefore they are often of low value to wildlife. The current assessment does not distinguish between areas of intensively managed grassland with low biodiversity and more valuable areas. This indicator is therefore not currently providing a suitable biodiversity indicator as intended.

6.4 Recommendations for the future

This section outlines a number of possible extensions to the survey methodology and scope of the assessment.

6.4.1 Alternative methods for measuring the indicator

Access to green space

In order to gain a better understanding of the accessibility of green spaces, the following modifications should be considered.

(i) Modify the question

To overcome the problem of subjectivity in the survey, people could be asked to estimate the time it would take them to walk to their nearest local green space or countryside. This could then provide a more quantitative assessment and provide a more meaningful indicator. A trend may then be observed, which could indicate that the distance to local green spaces is decreasing.

(ii) Fully utilise data from Defra survey

The Defra survey used for the baseline assessment provided a breakdown of ease of access to local green space. It made a distinction between those people who live in the countryside and those who do not.

In response to the question “Are there any green spaces or countryside around which you can get to easily without using a car or other transport?” the following responses were given:

Table 4.1: Responses to question regarding access to green spaces. Table adapted from Annex 1, Table 18 of the Survey of Public Attitudes to Quality of Life and to the Environment, 2001

Yes (live in the countryside)	32%
Yes (do not live in the countryside but can easily access green space)	52%
No	16%

When considering biodiversity indicators for towns, cities and development it would be appropriate to only include those people who live in urban areas. The people who answered ‘Yes (live in countryside)’ should therefore not be included within the assessment. This would then provide a more accurate indicator for the status of urban areas.

(iii) Use of ANGSt criteria

English Nature’s Accessible Natural Greenspace Standards (ANGSt) recommend that at least 2ha of accessible natural green space are provided per 1000 population, and that:

- No person should live more than 300m from their nearest area of natural green space.
- There should be at least one accessible 20ha site within 5km.
- There should be one accessible 100ha site within 5km.
- There should be one accessible 200ha site within 10km

These criteria could be used to more effectively assess accessibility to green space. The number of local authorities that are meeting these standards could be assessed each year to calculate whether accessibility to green spaces is improving or in decline. It may prove impractical to compile figures for all parts of the ANGSt criteria but a simple assessment of whether 2ha of natural green space is available per 1000 population is feasible. Local authorities would be required to submit figures of the area in hectares of natural green space within their administrative boundaries as well as population figures. Whilst this may not give a clear indication of the distance of green spaces from people, it would give a general picture of the local authorities that have sufficient areas of green space within their boundaries. Regions with insufficient green space provision could then be identified and more detailed assessments made for those areas. This would require English Nature and local authorities to work together to set targets and ensure that those targets are met.

Visits to green space

The Defra survey used for the baseline assessment provides more detail regarding visits to local green space. People were asked how *often* they use local green space. These details could provide a more effective measurement of how well utilised green spaces are. In response to the question “During the last 12 months, how often have you used local green spaces/countryside without using a car or other transport (except for passing through them or for work)?” the following responses were given:

Table 4.2: Response to question regarding visits to local green spaces. Table adapted from Annex 1, Table 18 of the Survey of Public Attitudes to Quality of Life and to the Environment, 2001

Most days	16%
At least once a week	19%
At least once a month	14%
Occasionally	24%
Not at all	11%
No access	16%
Total	100%

These data show that only 49% of respondents visit their local green space more than once a month. Therefore, the current baseline assessment showing that 73% of people visit local green spaces provides an unrealistic view of how well-utilised green spaces are. Including these breakdowns of frequency of visits would therefore provide a more accurate assessment. The objective could be modified to “increase the proportion of people who visit green space at least once a week”. This would allow a measurable target to be given for this objective. The survey shows that at present 35% of people visit their local green space at least once a

week. The aim could be to increase this level to at least 50% of people visiting at least once a week.

6.4.2 Scope of assessment

This section considers how data could be gathered in order to assess how green spaces are used, as well as their condition and biodiversity value.

Function of green spaces

In order to incorporate the way that people use green spaces, a further section could be included within the next Public Attitudes Survey conducted by Defra (scheduled for 2005). This could ask people about the ways in which people use green spaces (eg dog walking, sport, exercise, jogging, playing with children, “just getting some fresh air”, birdwatching, other).

Condition of green spaces

Several organisations are involved with assessing the condition of green spaces. Surveys that have been designed by and information gathered by these organisations could be used to provide additional information for this indicator.

(i) Use of CABE Space green space audit methodology

Annex 2 of the report *Green Space Strategies: A Good Practice Guide* published by CABE Space provides a green space audit methodology. The purpose of this audit is “to find out the location, quantity and quality of green spaces”. This suggests several key criteria covering access, landscape quality, facilities, maintenance, management, safety, natural and cultural heritage, education, health and responses of people. This asks questions such as:

- Is the space a rich and stimulating environment?
- Is the space clean and free from litter and dog fouling?
- Is there evidence of sustainable management practices?

Scores from 1 to 5 are given for each criterion and can be viewed individually in order to assess the factors with the lowest scores. This can be used to decide priorities for action, for example, if litter is found to be a particular problem then this could be targeted by the provision of a greater number of bins within green spaces. Alternatively, an overall score out of 100 can be compiled to give a general view of the condition of green spaces. The objective could be to increase the proportion of green spaces achieving a score greater than 70 in these audits.

Whilst the methodology has already been devised, these audits are not currently being implemented. Forming a partnership with CABE Space and initiating this audit could provide valuable information on the condition of green spaces.

(ii) Green Flag Awards

Similarly, *The Egan Review: Skills for Sustainable Communities* (Annex B) identifies a number of performance indicators that could be used to measure progress towards sustainable communities. With respect to the built environment, one such indicator is “the percentage of authorities parks and open spaces which are accredited with a Green Flag Award”.

The Green Flag Award scheme is designed to “recognise and reward standards of excellence in parks and green spaces”. Green spaces are reviewed yearly, with a total of 253 awards being given for 2004/2005. The assessment is judged by the following criteria:

- A welcoming place
- Healthy, safe and secure
- Clean and well maintained
- Sustainability
- Conservation and heritage
- Community involvement
- Marketing
- Management

Applications for Green Flag status are made yearly by local authorities and therefore the accreditation is biased towards those authorities that actively promote applications. Therefore, a measure of the percentage of green spaces which are accredited with a Green Flag Award, as suggested by The Egan Review may be inappropriate. However, an assessment could be made of the percentage of applications for Green Flag awards that are successful each year. An increase over time would indicate that the condition of green spaces is improving.

The advantage of using Green Flag Awards over the CABI Space green space audit is that this is an established scheme. Green Flag Awards have been in operation for several years and data is already available for analysis. This would not require new surveys to be put into action and therefore would prove more practical to use for any assessments.

(iii) Public Parks Initiative and Living Spaces awards

The Heritage Lottery Fund’s Public Parks Initiative provides grants for the restoration of historic parks and gardens. Similarly, Living Spaces awards, managed by Groundwork and funded by the Office of the Deputy Prime Minister (ODPM), are awarded to local groups to improve and create open spaces in urban areas. The number of successful applications to these funds could be used as an indicator of the condition of green spaces. An increase in the number of grants allocated would indicate that a greater effort is being made to restore green spaces.

(iv) Green Space Management Plans

CABE Space promotes the design and implementation of Green Space Management Plans. An assessment based upon the number of green space management plans that are produced per year would give an indication of the resources being delivered to green spaces.

Biodiversity value of green spaces

In order to assess the biodiversity value of green spaces they could be assessed according to biodiversity indicators or by their connectivity.

(i) Biodiversity Indicators

In order to assess the biodiversity value of green spaces there are several possible indicators that could be used. In the Defra report *Working with the Grain of Nature* the following were identified as desired outcomes:

- Protection of green spaces and management as a wildlife site
- Peat use phased out
- Minimised use of pesticides
- Implementation of water conservation measures

An assessment of green spaces with regard to such indicators would provide a more accurate picture of the biodiversity value of these areas.

Similarly, English Nature's publication on *Accessible Natural Green Space Standards in Towns and Cities* identifies several factors relating to green spaces that may contribute to species richness:

- Overall green space provision.
- Size.
- Diversity of green space types.
- History.
- Intensity of management.

These factors could be used to design an assessment of the biodiversity value of green spaces.

(ii) Green space connectivity

The connectivity of sites is an important consideration with respect to maintaining biodiversity. A series of green spaces that are close together or well connected by intervening habitat corridors would be more valuable for wildlife than more isolated areas. An assessment based upon the distance between green spaces could indicate whether the connectivity is increasing or decreasing over time. This could be achieved by conducting a survey where people are asked how many green spaces are within a 30 minute walk from where they live. The greater the number of green spaces there are within 30 minutes walk, the better the connectivity.

6.5 Achieving the objectives

In order to improve access to local green space it will be necessary to ensure that Local Plans incorporate green space provision, as discussed in section T1. Specific targets need to be set in terms of a particular area of land to be set aside as green space per household. It is also important to ensure that the distance that residents need to travel to their nearest green space is minimised. The ANGSt criteria, as described earlier, provide targets which should be achieved.

To maximise the number of visits that people make to green spaces it will be necessary to raise awareness within local communities and to improve the condition of green spaces. Parks need to be well-maintained, welcoming places in which people feel safe. Offering activities and ways in which locals can get involved through organisations such as Groundwork will give people a greater sense of ownership of local green space.

6.6 Conclusion

The following recommendations are suggested for this indicator:

Definition of the indicator and objective: This objective would benefit from the inclusion of the biodiversity value of green spaces as well as access and visits made to these areas. An additional objective could be “To improve the biodiversity value of green spaces”.

Measuring the indicator: This report has indicated several ways in which the survey methodology against which targets are measured could be improved. This includes ensuring that the question asked in the survey is not biased, using ANGSt criteria to assess accessibility of green space and fully utilising data from the Defra survey.

Extending the scope of the assessment: Defra’s baseline assessment does not fully address the way in which green space can be used as a biodiversity indicator. Extending the scope of this assessment to include the way in which the public use green space, as well as assessing the condition and biodiversity value of green spaces is recommended. Methods by which these could be assessed have been considered.

Priorities for action: Ensuring that green spaces are maintained in a good condition to increase biodiversity is essential. Improving the condition of green spaces for wildlife will in turn encourage more people to visit green spaces.

Potential new partners: The Urban Workstream Group would benefit from input from organisations such as CABE Space and the Green Flag Award scheme, who are actively involved with evaluating the status of green spaces.

7 Proportions of households in England undertaking wildlife gardening (T5)

Objective: To increase the extent and range of public participation in gardening for wildlife

7.1 Introduction

7.1.1 Why this is a good indicator

Measuring the extent and range of public participation in gardening for wildlife is a reliable method for assessing biodiversity in urban areas since wildlife has adapted to live, and sometimes even to thrive, in the towns and cities of England. Gardens can provide a safe haven for many species and people's actions and the products they use in their gardens can have important implications for urban biodiversity.

Previously regarded as unworthy of the attention of academic researchers, domestic gardens represent a significant area of green space within urban settings and could play a crucial role in supporting biodiversity. High public awareness, tremendous enthusiasm and the ever-increasing availability of advice has enabled a large percentage of the urban population to contribute towards conservation. The increase in interest has meant that, despite their highly fragmented ownership, gardens have become the subject of a wide range of research projects and we are beginning to learn more about the importance of garden ecology.

The Biodiversity of Urban Gardens in Sheffield (BUGS) project, officially completed in December 2002, looked at the significance of urban gardens as habitats for biodiversity, and the value of some simple 'creative conservation' measures in enhancing that biodiversity. Based at the University of Sheffield, the project was funded under the UK Natural Environment Research Council's Urban Regeneration programme (URGENT).

The results (Gaston and others), published in *British Wildlife* in 2004, show that a variety of features in gardens, many of them under the control of the owner, have positive effects on wildlife. The report also highlighted the value of 'neighbourhood scale' gardening for wildlife. Although this work was carried out in a single city, urban gardens form a major part of most towns and cities making this data relevant throughout England.

7.1.2 Purpose of this chapter

The objective for the 'wildlife gardening' indicator at present is to ensure that towns, cities and other settlements contribute fully to the goals of biodiversity conservation and, in doing so, improve the quality of people's lives. This section will seek to improve the value of this indicator by suggesting changes to the data used to assess participation of 'wildlife gardening'. Suggestions of ways to achieve the objective, both for increasing the extent and range of those people gardening for wildlife and for increasing the public awareness of the issue, will also be presented.

7.2 Defra’s baseline assessment

Defra’s baseline assessment was derived from two surveys. The Office of the Deputy Prime Minister (ODPM) Survey of English Housing 2001-02, asks questions specifically on the methods people may use to encourage wildlife in their gardens and the Public Attitudes Survey (Defra, October 2002) asks more generally whether the respondent has ‘done things to encourage wildlife in the garden’. The baseline assessment published two figures, one (Figure 5.1) showing the methods that owners used to encourage wildlife in their garden and second figure (Figure 5.2) that breaks down those respondents that have ‘done something to encourage wildlife in gardens’ by settlement size (population).

The results show that the majority of ‘wildlife gardening’ has so far been restricted to feeding birds, with further actions, like using peat-free compost and creating special wild areas, being far less common.

The results of the assessment also shows that householders living in larger towns and cities (40%) are less likely to carry out actions to encourage wildlife than those in smaller towns and villages (70%). To increase the extent and range of public participation in wildlife gardening in urban areas would go a long way towards enhancing quality of life in towns and cities.

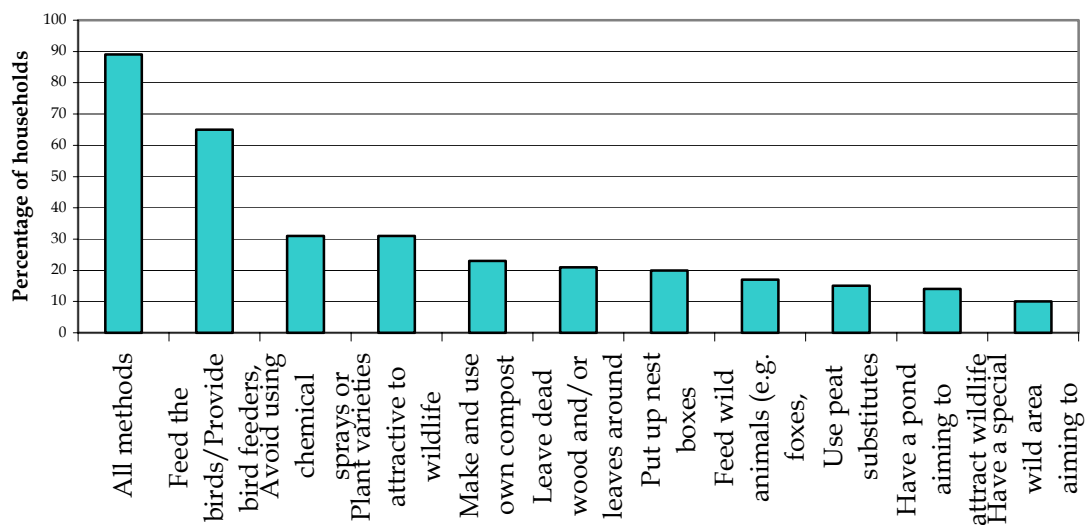


Figure 5.1: The methods householders may have used to encourage wildlife in their gardens from ‘Measuring Progress: The Baseline Assessment’, Defra, 2003

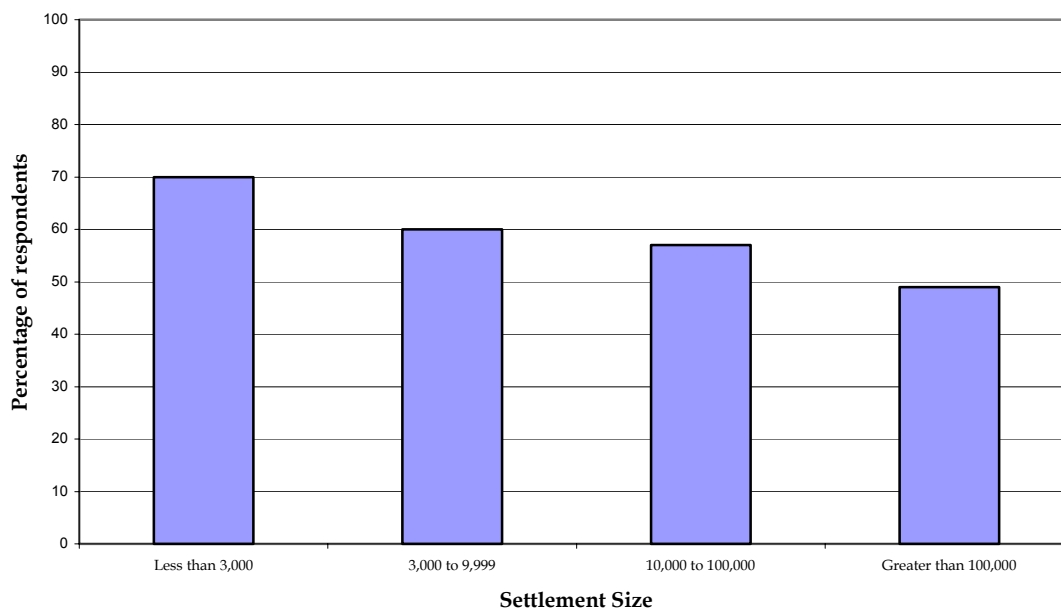


Figure 5.2: Respondents that have done things to encourage wildlife in gardens, by settlement size (population) from ‘Measuring Progress: The Baseline Assessment’, Defra, 2003

7.3 Comments on baseline assessment methodology

Although these large-scale surveys are a very good indicator for assessing the range and extent of gardening for wildlife in urban areas, there are several ways in which this approach could be improved and additional aspects that could be included to increase the value of this indicator.

7.3.1 Alternative methods for measuring the indicator

Survey data

It is essential that as much useful information as possible is gathered from the two surveys from which the indicator is derived; Office of the Deputy Prime Minister’s *Survey of English Housing, 2001-0’*, and Defra *Public Attitudes to Quality of Life and to the Environment, 2001*, both of which are due to be repeated in 2005.

The ODPM survey (2001/2) includes a detailed question on ‘Gardening for wildlife’ asking those households with a garden the ways in which they encourage wildlife, using categories such as avoiding chemicals, using peat substitutes and having a pond to attract wildlife. There is, however, no break down of some of the broader categories. The value of a question can be lost if it is too general or ambiguous. For example, the category, ‘Feed the birds/Provide bird feeders, bird tables or birdbaths’. Full advantage is not taken of the potential information buried within this question. A positive answer to this method of ‘wildlife gardening’ could mean anything from putting out a few kitchen scraps once a month, to supplying peanuts and seed all year round and refilling a birdbath daily.

Other parts of the wildlife gardening question would also benefit from revision to make them more relevant to the idea of ‘encouraging wildlife’ as opposed to simply being ‘environmentally friendly’. The answer categories in question are:

- ‘Avoid using chemical sprays or treatments’

To ‘**avoid**’ is rather ambiguous and depends on what people are classing as avoidance; not using chemicals at all or alternatively taking avoidance to mean they only spray a few times a year, which, if ill-timed, could still have severe consequences for wildlife.

- ‘Plant varieties attractive to wildlife’

Are people aware of which plant varieties are attractive to wildlife? Are people aware of which species are alien to the country and which are native?

- ‘Make and use own compost’

Making your own compost, whilst sustainable, is only beneficial to wildlife in the garden if a compost heap is being made. To place compost in a dustbin will not be create the habitat that a compost heap will.

In addition to this, though the survey is undertaken on a yearly basis, due to its length, this question is included in a group that are only asked every two or three years. There is a possibility that this could reduce the usefulness of the indicator.

Of the extensive amount of the data collected in Defra’s *Public Attitudes Survey 2001*, only one piece is used as a source for assessing the indicator progress. There are certain questions that are already asked within the ‘Environmental issues’ and ‘Personal actions’ section that could be useful as an extra source of information for the indicator.

Survey bias

In all surveys of this nature there will always be a certain degree of bias within the results as a consequence of respondents giving the answers that they think are expected from them and so creating a greater than expected positive result. Other ways of assessing the indicator therefore be considered.

Species data

Currently, no specific species data are being used to assess the extent and participation of gardening for wildlife in England. The value of the indicator could be greatly increased by using data specific to those species that have been identified as important in urban habitats, for example, the stag beetle *Lucanus cervus*, a UK Biodiversity Action Plan (UKBAP) species and the house sparrow *Passer domesticus*, whose decline since the 1970’s is in need of reversal. To concentrate on specific species would highlight the importance of particular habitat features.

7.4 Recommendations for the future

In addition to suggestions of how to improve the value of the surveys currently used to assess the indicator, this section includes details of other organisations and the potentially valuable information that they have produced. This could greatly improve the capacity of the indicator

to fully assess whether the concept of ‘wildlife gardening’ is indeed on the increase in towns and cities. A large number of organisations have recognised the importance of the different aspects of gardening for wildlife and have conducted surveys and research and it would be sensible to take account of this well of information.

7.4.1 Definition of the indicator and the objective

The indicator “Proportions of households in England undertaking wildlife gardening” may be misleading since this section of the strategy is entitled towns, cities and development. It is suggested that the wording of the indicator be changed to reflect the fact that many gardens occur in rural areas. The indicator should be redefined as “Proportions of urban households in England undertaking wildlife gardening”.

7.4.2 Alternative methods for measuring the indicator

Fully utilising data from the surveys

(i) *Survey of English Housing 2001-02* (ODPM, 2002)

The amount of useful information gained from the ODPM survey (2002) could be improved by a further break down of some of the categories, in particular ‘Feed the birds/provide bird feeders, bird tables or bird baths’.

Results of the baseline assessment have shown that 65% of households fall into this grouping, which could deal with a wide range of actions as discussed previously. A more specific approach could divide this general category as follows:

- Provide a birdbath.
- Provide bird feeders.
- Provide a bird table.
- Provide alternative food for birds occasionally (less than once a week).
- Provide alternative food for birds regularly (at least once a week).

This would separate those households that are serious about regular bird feeding from those that give irregular supplies and so give a more accurate indication of the proportion of the householders that are dedicated to wildlife gardening.

For the responses to be applied to those householders living in towns and cities specifically, it will be necessary either to:

- Separate those people living in towns and cities in the post-survey analysis by classifying their addresses/post codes as either ‘urban’ or ‘rural’ and disregard those that are ‘rural’.
- Include the classification into the ‘Gardening for wildlife’ question. Before asking householders the ways in which they encourage wildlife, they could be asked whether they live in an ‘urban’, ‘sub-urban’ or ‘rural’ setting. Those that choose the rural category could then be disregarded for the purposes of the baseline indicator.

To make other parts of the wildlife gardening question more relevant to the idea of ‘encouraging wildlife’ rather than being ‘environmentally friendly’ they could be revised in the following ways:

- ‘Avoid using chemical sprays or treatments’ could be changed to a choice ‘Never/ occasionally/ regularly use chemical sprays or treatments’. This removes the ambiguity over the word ‘avoid’, which can mean a different thing to different people. Any chemical spraying could have serious consequences for wildlife.
- ‘Make and use own compost’ could be replaced by, ‘Make and use own compost heap in garden’. This would ensure that those people that answered yes to this question had created a ‘compost heap wildlife habitat’ in their garden rather than storing their compost elsewhere.

(ii) *Public Attitudes to Quality of Life and to the Environment: 2001* (Defra, 2002)

The only part of the Defra Public Attitudes Survey, 2001 that is used in the assessment of participation in gardening for wildlife, is ‘whether the respondent has done things to encourage wildlife in their garden’.

The value of this survey as a source for the baseline assessment could be increased by including the following additional information (those below are from the 2001 survey):

- Within the ‘Environmental issues: degree of concern’ section:

Table 5.1: Table adapted from Annex 1, Table 8c of the *Survey of Public Attitudes to Quality of Life and to the Environment, 2001*

Settlement Size	% respondents selecting ‘very worried’ when asked ‘How worried to you feel personally about the loss of plants and animals in the UK?’
1. Villages and smaller settlements	56
2. Market and other small towns	49
3. Larger and principal towns	49
4. Major conurbations	47

From this, it is possible to gauge how people in towns and cities (2, 3 and 4) see the problem of decreased biodiversity in general and compare it to those in smaller settlements (1). From these results we can see that those people living in more urban areas are more concerned about the loss of biodiversity.

- Within the ‘Personal actions taken on a **regular** basis’ section:

Respondents are asked, “I am now going to read out a list of actions which you might take at home. For each one I read out, please use one of the phrases on this card to tell me whether you (or your household) have done it in the last 12 months.”

Table 5.2: Table adapted from Annex 1, Table 14c of the *Survey of Public Attitudes to Quality of Life and to the Environment, 2001*

Domestic Actions	Villages/smaller settlements (%)	Market/smaller towns (%)	Larger/principal towns (%)	Major conurbations (%)
Made compost out of kitchen waste	34	23	21	13
Done things to encourage wildlife in your garden	70	60	57	49
Avoid using pesticides in the garden	69	67	68	62

These responses are categorised according to the settlement size, allowing a comparison to be made between rural and urban areas. It appears from these responses that people living in major conurbations are less likely to make compost, encourage wildlife and avoid use of pesticides compared to people living in villages and smaller settlements.

Additional sources of data

(i) Royal Society for the Protection of Birds

The Royal Society for the Protection of Birds (RSPB) has produced a wealth of information about wildlife friendly gardening, with details of peat-free gardening, planting for birds and the creation of ponds. They have also organised the annual Big Garden Birdwatch since 1979, which, in addition to keeping track of garden bird populations, encourages householders to attract birds to their garden and, in doing so, helps the public to learn more about the wildlife around their homes.

(ii) People’s Trust for Endangered Species

The stag beetle is a threatened species, protected under the Wildlife and Countryside Act 1981 and a UKBAP priority species. Its range has steadily declined over the last 40 years probably due to the clearing of its habitat – dead wood - from woodland and parks. London is one of the few places in which the stag beetle is still relatively common and is found within many gardens in the capital.

The People’s Trust for Endangered Species (PTES) launched their ‘Great Stag Hunt’ in 1998 with a second survey in 2002. It was found that over 70% of records were coming from urban and sub-urban gardens, with very few from rural areas, suggesting that gardens are an extremely important habitat for the species. The stag beetles need dead wood for food and in which to breed so those people that garden with wildlife in mind and do not clear dead wood from their gardens would be more likely to attract the beetles. Subsequently, monitoring the population would be a good indicator of the range in participation of gardening for wildlife. In the future, data from the PTES could be used to add value to the assessment of the wildlife gardening biodiversity indicator.

7.4.3 Scope of the assessment

There will be a certain degree of bias within the survey results resulting from respondents giving the answers that they think are expected from them. An alternative indication of the

number of households providing for wildlife could be gained from monitoring sales of wild bird food, nest boxes and peat substitutes, particularly in urban areas.

(i) Bird food and boxes

Records of wild bird food sales and bird boxes could be monitored through the RSPB. The RSPB is a particularly good organisation to use in this manner as its customers will mainly use the postal or on-line catalogues to buy bird food and so will need to give their address. So to separate sales to householders in urban areas, the country would need to be divided into 'urban' and 'rural' categories and the addresses of customers placed into these categories. The sale of bird boxes to people in urban areas could also be analysed in the same way.

(ii) Peat-free compost

A large proportion of the major national chain stores that supply compost will be located in urban areas. All the major companies (B&Q, Focus Group Ltd, Wickes, Homebase Ltd, Safeway and Asda) stock peat-free compost and have targets for reducing the amount of peat compost they sell (The Wildlife Trusts, 2004). The sales figures for both peat compost and for peat-free alternatives would be an excellent indicator of how many people are aware of the issues and are gardening with wildlife in mind.

Green roofs

Green roofs are a potential way of increasing biodiversity within urban areas and are discussed in more detail within the objective T6. Though most examples of green roofs are on large, commercial buildings, and there are certain points to be thought about before creating a green roof, there is no reason that they should not be considered for roofs of private sheds or houses. If green roofs continue increasing in popularity among urban households in England, they could be considered as an indicator of 'wildlife gardening for the future'. If this is the case then to begin monitoring green roof survey results and developments in research would be beneficial.

Species data

Including information relating to species that have been identified as important to urban habitats will provide more detailed information for this indicator. The following organisations could be approached in order to extend the scope of this assessment:

(i) London Wildlife Trust

The London Wildlife Trust is very keen to offer information and advice on 'wildlife gardening' and the species that have made urban areas their home. The trust produces an information pack 'Gardening for Wildlife' that gives ideas on how to make your garden wildlife-friendly and also includes the trust's 'garden survey'. This survey is also available on-line and aims to discover the range and population size of eight key urban garden species including the house sparrow and the stag beetle.

(ii) People's Trust for Endangered Species

As discussed previously, to use the stag beetle as an indicator species would give a useful indication as the extent of gardening for wildlife in urban areas. Information already gained by the PTES could be used along with future repeats of the survey.

(iii) The House Sparrow Project

House sparrow populations have fallen from 12 million pairs in the early 1970s to 6-7 million pairs now (BTO, No date). As a result of this steady decline, the British Trust for Ornithology and CJ Wildbird Foods launched the house sparrow project in 2002. The project aimed to find out possible causes for the decline of the house sparrow by sending out questionnaires to volunteers and other interested parties. The project found that house sparrows were more likely to be associated with households that provided bird food all year round rather than not at all or only occasionally. The project is currently carrying out surveys in towns and cities to find out which areas are most valuable to house sparrows. A project such as this has the potential to confirm the factors that are causing the decline of urban birds.

7.4.4 Potential new partners

The following organisations could be useful partners to the Urban Workstream Group to deliver the objectives for this indicator:

(i) New Homes Garden Awards

The New Homes Garden Awards (New Homes Garden Awards Website) are aimed at house builders of any size that would like to show prospective buyers their commitment to making the garden a significant part of the lifestyle offered to new home purchasers. Among the 12 categories being judged is 'Best Wildlife Garden'. This garden must show it has made the best use of plants and include features that attract and support wildlife.

The New Homes Garden Awards is a practical way to involve house builders in conservation. The more new houses that are being built with wildlife-friendly gardens, the more widespread such gardens will be, allowing people to contribute more fully to increasing the levels of biodiversity in towns and cities.

(ii) National garden stores

To involve major garden centre chains would accelerate the spread of the 'wildlife gardening' idea and advertise the benefits both for biodiversity and to people's quality of life. The distribution of posters or free copies of publications such as English Nature's *Wildlife-friendly gardening: A general guide* (2003) at garden centres is another method for making information as readily accessible as possible.

7.5 Achieving the objective

For the urban workstream to achieve their objective, the habitat needs of the wildlife that has made urban gardens its home, must be identified. Repeats of baseline research, such as that carried out during the BUGS Project or similar, will begin the process of turning the,

currently rather anecdotal advice on recommended features for garden wildlife features, into fact.

In addition to more research into our urban biodiversity, attempts should be made to increase public awareness of the biodiversity issue and to ensure that the most up to date advice is available to all. Once people become aware of the wildlife around them, their enthusiasm will maintain the flow of information and increased knowledge of the wildlife of their gardens.

The inclusion of a community aspect would not only benefit urban biodiversity but could potentially bring urban communities together; further enriching quality of life in towns and cities. ‘Green Point’ scoring systems could encourage communities to come up with innovative solutions to the design difficulties that arise when incorporating wildlife features. This would be especially relevant to those areas that now have community gardens like the Phoenix Garden in Holborn, London.

7.6 Conclusion

The proportion of households undertaking wildlife gardening is a potentially valuable indicator of biodiversity. The following recommendations are suggested for this indicator:

Definition of the indicator: Currently, the wording of the indicator is slightly misleading, as it does not specify that the section is concerned with urban biodiversity. It is recommended that the indicator be amended to “Proportions of urban households in England undertaking wildlife gardening”.

Measuring the indicator: The value of the surveys currently used to assess the indicator could be improved by the breaking down of more general categories and by the application of more of the survey results than are being used at present. This could greatly improve the capacity of the indicator to fully assess whether the concept of ‘wildlife gardening’ is indeed on the increase in towns and cities. Data collected during the RSPB’s Big Garden Birdwatch and the PTES’s Great Stag Hunt could be used to more accurately assess reflect the trend in ‘wildlife gardening’.

Extending the scope of the assessment: To avoid the inherent bias of a survey, records of wild bird food sales and bird boxes could be monitored through the RSPB as an alternative indicator and split into those people buying in ‘urban’ and ‘rural’ areas. In the same way, sales figures from major garden stores for both peat compost and for peat-free alternatives would be an excellent indicator of how many people are aware of the issues and are gardening with wildlife in mind.

Data on specific species that have made urban areas a major part of their habitat is another indication of a rise in urban wildlife gardening. To look at trends in these species would allow the identification of particular habitat features that are necessary for their existence. Such actions are likely to benefit species other than the ‘key’ species identified and help to achieve an increase in biodiversity.

Priorities for action: The awareness of the public is pivotal to the success of ‘wildlife gardening’. To join forces with businesses and award schemes would allow people to play a part in the conservation of their towns and cities. Access to information could be realised by

the distribution of posters and leaflets in garden centres and through the involvement of urban community groups.

Potential new partners: There are several organisations that could become useful partners to the Urban Workstream Group in relation to wildlife gardening. These include the RSPB, People's Trust for Endangered Species, The London Wildlife Trust, BTO House Sparrow Project, New Homes Garden Awards and national garden stores.

8 Local Plans and Unitary Development Plans with biodiversity policies and targets in England (T6)

Objective: To increase the incorporation of policies and targets to promote biodiversity into Local Plans and Unitary Development Plans

8.1 Introduction

Almost 90% of England's population lives in towns and cities and this figure is set to increase (Defra, 2002). Pressure on high-value land for development and other uses potentially leads conflict with biodiversity objectives.

8.1.1 Why this is a good indicator

Local Plans and Unitary Development Plans (UDPs) have an important function in informing planning decisions such that they are able to conserve the existing wildlife resource, mitigate any adverse effects, foster biodiversity and protect ecosystems in both urban and rural areas. Plans have a particularly important role in setting planning policies for biodiversity outside of designated sites.

This indicator seeks in particular to track the introduction of policies and targets relating to the whole range of biodiversity priorities, whilst also recording where adequate policies relating to designated sites are in place, and setting targets to assess biodiversity progress.

In our increasingly global economy there is a need to maintain competitiveness but integrate with this the challenge of improving people's quality of life. New developments will always be required including extensions to transport infrastructure, new offices and new housing. The demand for development will lead to the development of brownfield sites, and pressures on other open areas, some of which are of biodiversity interest. In the face of such pressures a strong recognition of the full potential of urban areas to support biodiversity will be essential.

8.1.2 Recent changes to planning

Planning Policy Guidance (PPG) Notes set out the Government's national policies on different aspects of planning. Policies relating to biodiversity include PPG9 *Nature Conservation* as well as PPGs 3 and 17 which recognise the importance of biodiversity in the context of housing and open space planning.

The planning process is currently undergoing considerable change with one of the key aims being a greater emphasis on sustainability. PPGs are being replaced by Planning Policy Statements (PPSs) which will continue to set out national objectives for planning. PPS1 *Creating Sustainable Communities* sets out sets out key policies underpinning the planning process, placing emphasis on sustainable development. PPG9 is being replaced by PPS 9 *Biodiversity and Geological Conservation*. A consultation took place in 2004 and the revised guidance can be expected in due course. The policies set out in the statement will need to be taken into account by regional and local planning authorities in the preparation of local development documents and they may also be important in informing decisions on individual planning applications.

Local Plans, Unitary Development Plans and Structure Plans will be replaced by Regional Spatial Strategies (RSSs) and Local Development Frameworks (LDFs). The LDFs will be supported by Local Development Documents (LDDs). The intention is for the planning process to become more streamlined, with one of the key aims being to incorporate sustainability appraisal within the planning system.

The new RSSs and LDDs will need to include a sustainability appraisal in order to comply with the European Directive on Strategic Environmental Assessment and the UK's Planning and Compulsory Purchase Act. There will therefore be a greater emphasis on sustainable development and in turn on biodiversity issues.

8.1.3 Purpose of this chapter

The objective for the Local and Unitary Development Plans indicator at present is to increase the incorporation of policies and targets into such plans to promote biodiversity. In this section, we will seek to improve the value of this indicator by suggesting changes to the data used to assess the degree to which authorities have incorporated biodiversity into their objectives. We will also suggest ways to achieve the objective both for increasing the inclusion of biodiversity and enhancing awareness of the issue to those involved in the planning procedure.

8.2 Defra's baseline assessment

Defra's baseline assessment was based on a random sample of one third of the Local and Unitary Development Plans from 'the south', 'the midlands and east' and 'the north'. Each plan was evaluated as to how well it incorporated biodiversity related policies by comparing it with a checklist listing the 'ideal' content. On the basis of the score it received, the plans were divided into the classes: Low, Medium and High. This assessment is due to be repeated every 2 to 3 years.

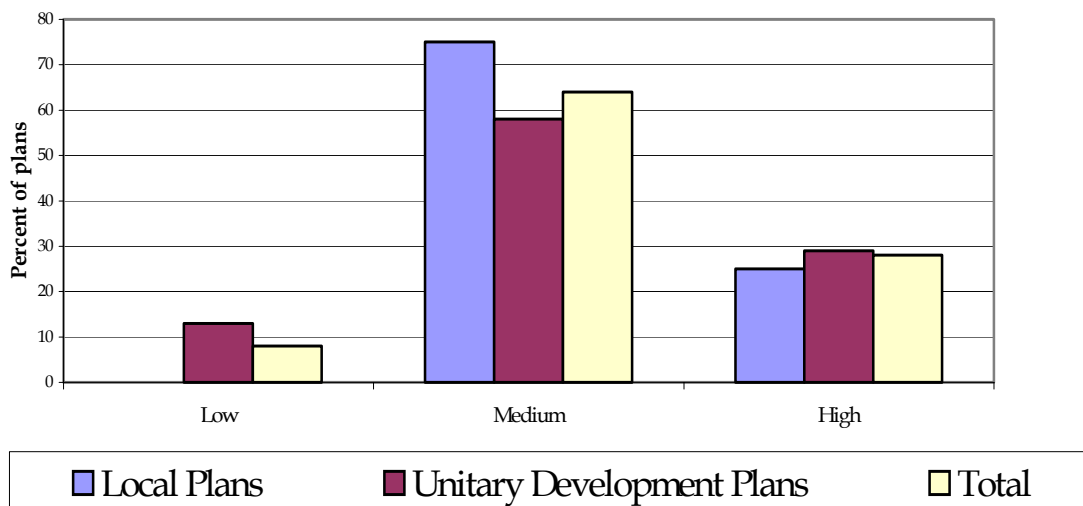


Figure 6.1: The degree to which local plans and unitary development plans include biodiversity related targets and policies using a point scoring system from *Measuring Progress: The Baseline Assessment*, Defra, 2003

The baseline assessment (Figure 6.1) found that only 29% of Unitary Development Plans and 25% of Local Plans scored highly in incorporating biodiversity objectives into their policies by setting relevant targets and relating policies to the local priorities identified by the relevant Local Biodiversity Action Plans and Partnerships. Due to the fact that the data presented here are preliminary there are no trend data available for analysis.

The aims set out by the urban workstream for the programme of action of this strategy include:

- Integration of biodiversity into policies and programmes for sustainable urban communities.
- Planning policies and development decisions that recognise the need to conserve and enhance biodiversity.
- The planning and implementation of large-scale strategic and infrastructure projects that take full account of the needs of biodiversity, including that in built-up areas and species and wider biodiversity.
- Encouragement to local authorities and developers to see the potential of biodiversity as an enhancement to development.
- Incorporation of more biodiversity elements into green buildings.

To ensure that urban areas contribute fully to the goals of biodiversity conservation and urban development makes minimal impact on wildlife habitats, these aims must be adhered to.

8.3 Comments on baseline assessment methodology

Although the inclusion of biodiversity targets and policies into plans is a good indicator of biodiversity, the current indicator makes no mention of being specifically concerned with towns and cities. As the relevant section in the *Working with the Grain of Nature* document is titled ‘towns, cities and development’, it would be appropriate to try to separate the ‘urban’ and ‘non-urban’ authorities where possible for the benefit of more specific analysis.

Secondly, whilst Defra’s assessment does give an overview of the incorporation of biodiversity targets into Local and Unitary Development Plans, it does not highlight the areas that require further work. A breakdown of where Plans are scoring well and areas in which they lack biodiversity targets is not currently provided.

Currently Defra’s baseline assessment only considers Local and Unitary Development Plans. It may be appropriate to develop further methods that provide information on biodiversity in a planning context. Whilst the current assessment does show the inclusion of policies within Plans, it does not show the degree to which they are applied. A methodology to identify those Plans that are being implemented is therefore required.

The current assessment reviews whether policies are being incorporated into Plans but does not develop targets in order to monitor whether biodiversity is being adequately promoted through the planning system.

Local Plans and UDPs will soon be replaced by statutory Regional Spatial Strategies and Local Development Frameworks. These changes will make it difficult for this indicator to be

tracked consistently and will require a new objective to be set that considers the new planning structure.

8.4 Recommendations for the future

8.4.1 Alternative methods for measuring the indicator

Plans relating to urban areas

The indicator “Local Plans and Unitary Development Plans with biodiversity policies and targets in England” may be misleading since this section of the strategy is only concerned with towns, cities and development. A method for identifying plans relating to urban areas is therefore required. This would allow an assessment of whether biodiversity was being given a higher or lower priority within urban areas.

In order to assess which local authorities are in urban areas, an inventory of all the local authorities in England (including county, city, borough and district councils and unitary authorities) taken from the Government’s website (www.direct.gov.uk) can be used. These administrative areas could be examined using MAGIC (Multi-Agency Geographic Information for the Countryside, www.magic.gov.uk). If the majority of land within the boundary is built-up then that local authority can be classified as urban. Any administrative areas that include the outskirts of conurbations can be classified as suburban and those areas with only small settlements as rural. On this basis, the local authorities shown in Appendix III were classified as ‘urban’ and ‘suburban’, with all others being classified as ‘rural’. A total of 165 urban local authorities, 12 suburban and 214 rural were identified.

When selecting Local and Unitary Development Plans for analysis it would be helpful to indicate whether they are urban, suburban or rural. This would allow a comparison to be made between the status of rural and urban local authorities.

Including more information within the analysis

It is suggested that when the Local and Unitary Development Plans are sampled for the baseline indicator, more information is included in the analysis. The Plans were scored in comparison to a checklist in order to give them a score of low, medium or high. As it currently stands, the only information available from this assessment are the final scores, without any detail relating to the specific questions.

It would be beneficial to analyse which biodiversity targets are being covered well within the Plans and what areas need further work. For example, Defra have identified that Local Nature Reserves and Sites of Special Scientific Interest have been incorporated into most Plans, but targets outside these sites are less comprehensive. By identifying areas that are currently not being addressed, recommendations can be made to planners when developing future plans.

The checklist used to identify the quality of biodiversity policies allocates points for Plans that contain policies relating to:

- The wider biodiversity resource, and/or Regulation 37 of the Habitats Regulations
- Designated Sites

- Local BAPs

It would be beneficial to carry out an in-depth analysis of the results of this survey. For example, it may be apparent that Plans are not scoring well for inclusion of Local BAPS, and this could then be identified as an area that requires improvement.

Inclusion of a policy alone does not reflect the quality of the policy and therefore the scoring system also gives more detail on whether the policies are considered to be:

- Detailed
- Positive (ie aimed at enhancement rather than just protection)
- Clear

It may be the case that whilst Plans are generally detailed, they are not positive. If this were the case then an aim for the Urban Workstream Group would be to encourage local authorities to promote enhancement of the conservation status of designated sites and BAP species. Inclusion of this more detailed information within the analysis is therefore essential.

With the results obtained from this more in-depth analysis, it would be beneficial to create an ‘ideal plan’ to be made available to authorities as a guide to the incorporation of biodiversity related policies and targets. This plan could act as guidance for the kinds of issues that should be included within Local and Unitary Development Plans. The ‘ideal plan’ could be modelled on the high-scoring Plans identified from this survey.

Local authorities employing ecologists

To monitor the number of local authorities that employ one or more ecologists would be another method of assessing how seriously councils are taking the idea of incorporating biodiversity.

Using the inventory of all the ‘urban’, ‘suburban’ and ‘rural’ local authorities in England (as described above and detailed in Appendix III) we were able to identify all those authorities that currently employ ecologists. Information on ecologists is available from the Association of Local Government Ecologists (ALGE) website. The results are shown in Table 6.1.

Table 6.1. Table to show the proportion of local authorities that employ ecologists

	Total number of authorities	No. of authorities with ecologists	% local authorities with ecologists
Urban	165	55	33
Suburban	12	1	8
Rural	214	62	29
Total	391	118	30

This shows that of a total of 391 local authorities, 118 employ an ecologist. There is little difference in the proportion of local authorities employing ecologists in urban areas compared to rural areas (33% in urban areas compared to 30% in rural areas). Those local authorities comprising mainly suburban areas have the lowest proportion of ecologists at just 8%, however the sample size is too small for this to be significant.

The aim of the Urban Workstream Group should be to increase the number of local authorities that employ ecologists, particularly in urban areas. By monitoring this over several years a trend could be observed. It would be particularly worrying if the number of ecologists was in decline, and this would highlight a greater need for resources within Environmental Departments of local councils.

Planning applications

This indicator currently only considers biodiversity policies within Local Plans and Unitary Development Plans. Inclusion of planning applications within the objective could provide a further indication of the level of priority being given to biodiversity within the planning context. The proportion of planning applications with conditions relating to wildlife and biodiversity issues would be a useful indicator. An increase in the number of planning applications that include biodiversity measures would indicate an improvement in biodiversity policy.

In order to assess the degree to which planning regulations relating to wildlife are being applied it would be useful to monitor the number of planning conditions involving wildlife or biodiversity that are contravened. This could involve an assessment of the proportion of cases where developers are effectively prosecuted when the conditions in a planning application relating to wildlife are not met.

Green roofs

Green roofs are becoming a popular way of including biodiversity into urban areas with successful examples in North America, Japan and across Europe. The two main types are:

- Intensive – Deep soil layer, variety of plants, regular maintenance.
- Extensive – Lightweight, shallow soil, low maintenance.

Intensive green roofs can grow a wide range of plants, even trees and shrubs. Extensive green roofs would often be seeded with native meadow grasses and are more ‘wild’ than the intensive gardens. However, a roof garden of any sort maximises the area of land in towns and cities that can become a wildlife habitat. The most appropriate time to consider building a green roof is when an existing roof needs replaced, or during the development of a new building.

At present there are no policies in place to assist planners and no standards yet exist to assess the quality of finished roofs. However, since 2000, over 30 million m² of green roofs have been erected in Germany, and Switzerland, Sweden and the USA, and other countries are now following suit (livingroofs.org). The Government’s approach to urban regeneration requires innovative designs of new buildings.

Nottingham Trent University have undertaken research on the environmental benefits of green roofs with surveys in 2000 and 2004 (www.greenroofs.co.uk). [Livingroofs.org](http://livingroofs.org), the first independent UK website to specifically promote green roofs, gives advice to planners and developers and also details the latest research projects dealing with the issue.

As many local authorities are becoming more familiar with the concept of living roofs, it is highly likely that the number of green roofs in England's towns and cities will increase steadily. Subsequently, the increase in planning applications that include green roofs would also be a useful indicator of how frequently the concept of increasing urban diversity is being included into the planning of developments.

Developing targets

This indicator aims to develop targets to which the planning system can work towards in promoting biodiversity. This would allow a more quantitative assessment to be made of whether biodiversity is being adequately incorporated by planners. This report has highlighted several areas by which these indicators could be measured, and in the context of the planning system these could include:

- At least 50% of local authorities to employ an ecologist.
- At least 50% of Local Plans and Unitary Development Plans to score 'high' when scored against the 'ideal plan'.
- At least 50% of Local BAPs to include strategies relating to urban wildlife.
- At least 50% of planning applications to include some level of enhancement for wildlife.

These provide realistic targets for local planning authorities to work towards.

Incorporating the new planning process

Recent changes to the planning system will mean that Local Plans and UDPs will be replaced by LDFs. It is therefore necessary to change the objective for this indicator to:

“To increase the incorporation of policies and targets to promote biodiversity into Local Development Frameworks”

As the baseline assessment has used Local Plans and UDPs it will be necessary to highlight which document is being assessed. As the new planning guidance places a greater emphasis on sustainability it would be expected that there would be an increase in policies that promote biodiversity. It may be difficult to make direct comparisons between the baseline study and any future assessments due to these large-scale changes in policy. It may not be possible to directly compare policies between UDPs and LDFs. A further difficulty may be encountered as some regions may take longer to adopt the new practices and therefore some local authorities will be using LDFs whilst others may not have updated their policies.

8.5 Achieving the objective

8.5.1 Local Plans and Unitary Development Plans

Although most Local Plans and Unitary Development Plans have incorporated policies for specific sites such as Sites of Special Scientific Interest (SSSI) and Local Nature Reserves, the consideration of targets outside these sites is less comprehensive and targets against which to assess progress are rarely used (Defra, 2003). The Urban Workstream Group

should be promoting the inclusion of other biodiversity targets within Local Plans and ensuring that these are put into action.

Targets need to be set against which to assess how well Unitary Development Plans and Local Plans are incorporating biodiversity plans and policies. The checklist against which the urban workstream are assessing the sample plans must be updated regularly to include the most up to date ideas to incorporate biodiversity into planning policies. It is important not only to monitor whether biodiversity targets are being included within Plans but also to assess the quality of these policies. Monitoring the degree to which they are applied is also important, which could be achieved through assessing the number of cases where enforcement is applied.

The replacement of PPG9 *Nature Conservation* by the forthcoming PPS9 *Biodiversity and Geological Conservation* may also have consequences for the policies and targets that unitary development and local plans must include. The constant setting and review of policies and targets, along with an increase in knowledge of the ways in which biodiversity can be incorporated into urban planning will allow towns and cities to take full advantage of their potential to support a rich diversity of life.

As Local Plans and UDPs are replaced by LDFs it is likely that a greater emphasis will be placed on sustainability. This should be reflected in the adoption of more policies relating to biodiversity. It may be appropriate for the Urban Workstream Group to monitor the adoption of the new framework and to ensure that all regions are committed to updating their policies to reflect recent changes on planning policy.

8.5.2 Accessibility of information

If possible, the current checklist used to assess the baseline objective or an 'ideal plan' should be made available to local authorities to set a standard against which plans should be assessed. This should help local authorities to develop more comprehensive biodiversity targets. For the Urban Workstream to achieve their objective, there needs to be a standard example of an 'ideal' plan with biodiversity policies and targets incorporated. Planners and developers must be kept informed of how to incorporate 'biodiversity' into all schemes in urban areas.

In many cases it is difficult to find the contact details of ecologists on local authority websites. For advice and information to be made more accessible to the general public and developers alike, increasing the profiles of local authority ecologists would be beneficial. The planning sections of local authority websites would be the ideal place to advertise the services of ecologists, as it is often difficult to be directed to the appropriate person from the telephone switchboard.

The Association of Local Government Ecologists (ALGE) aims to develop good nature conservation practice within local government. This organisation maintains a database of ecologist working within the government and provides a forum in which to exchange information. ALGE could potentially provide an important partner in order for the Urban Workstream Group to progress with this target.

8.6 Conclusion

The following recommendations are suggested for this indicator:

Definition of the indicator: The objective should be changed to reflect changes in planning policy. This should be “To increase the incorporation of policies and targets to promote biodiversity into Local Development Frameworks”

Measuring the indicator: It is important that urban and non-urban authorities are distinguished from each other to allow the workstream to refer to the policies and plans relevant to towns and cities. Including more detail regarding where biodiversity targets are lacking in the Plans would give more valuable information. It may be advisable to assess the number of local authorities that employ an ecologist or details on planning applications as alternative indicators. Due to the increasing popularity of ‘green roofs’, another potential indicator is the number of planning applications that include living roofs.

Priorities for action: To have an up to date checklist or ‘ideal’ plan that other Unitary Development and Local Plans can be assessed that is made available to local authorities would be beneficial. It is also important to make information more accessible to the general public. It will be necessary for the Urban Workstream Group to be aware of the changes to planning policy with the adoption of Regional Spatial Strategies and Local Development Frameworks.

Potential new partners: Forming a partnership with ALGE would be beneficial to the Urban Workstream Group in relation to this indicator.

9 Conclusions

The aim of this report was to critically assess the existing methods of obtaining and collating information, improving on these where possible. Several recommendations have been made for each of the indicators, which are outlined within each chapter.

9.1 Definition of the indicators and objectives

The majority of the indicators provide a good method for assessing the biodiversity value of urban areas. Suggestions have been made to change the indicator in some cases to ensure that they are focussed towards **urban** biodiversity issues.

Defra's baseline assessment did not include an objective for 'Progress towards urban related SAP targets', we suggest this should be "To include threatened species and habitats of urban areas in the UK Biodiversity Action Plan and research their status. To halt and ultimately reverse the decline in priority urban species and habitats."

9.2 Measuring the indicators

Several suggestions have been made of ways in which the indicators are measured. These include:

- Changes to the methodology used for the assessment.
- Making full use of the data available from the current surveys.
- Ensuring that the surveys are not biased.
- Use of alternative sources of baseline data.

These issues have been dealt with in more detail within the relevant sections.

9.3 Extending the scope of the assessments

It is recommended that green space objective (T4) is extended to include the biodiversity value and condition of green spaces as well as people's access and visits to these areas. This would give a better indication of the status of urban areas for wildlife.

The wildlife gardening objective (T5) could be extended to include sales of bird food, bird boxes and peat-free compost so that the assessment does not just rely upon surveys of public attitudes. This section could also include an assessment of the numbers of key species found within urban gardens.

9.4 Priorities for action

Several ways in which the objectives of the Urban Workstream Group can be achieved are suggested within this report. Actions for the group to **improve** performance against the indicators include:

- Prioritising species or habitats that should be included on the UKBAP and carrying out research to determine their status.

- Working with English Nature to improve the condition of urban SSSIs, particularly of acid grassland, built up areas and gardens and dwarf shrub heath.
- Increasing community awareness of urban birds and their conservation by distributing leaflets and setting up a website with links to relevant organisation's websites.
- Improving the condition of green spaces for wildlife and encouraging local people to visit green spaces by working with groups such as CABI Space.
- Increasing awareness of the value of wildlife gardening and ensuring that information is readily available to communities.
- Ensure that local authorities are given information on how to include biodiversity targets within Local Plans and Unitary Development Plans.

It is important that the indicators are actively monitored in future years and that the trends observed are acted upon. If declines in the biodiversity value of urban areas are observed for any of the indicators it will be necessary to be proactive in ensuring the targets are met and the decline reversed. These indicators should be used to ensure that the following actions as outlined in 'Working with the Grain of Nature' are achieved:

- Integration of biodiversity into policies and programmes for sustainable urban communities.
- Encouragement to local authorities and developers to see the potential of biodiversity as an enhancement to developments.
- Urban parks and green spaces managed with biodiversity as a core principle.
- Further understanding of biodiversity in gardens and parks and encouragement of gardening practices in urban areas that enhance wildlife.

It may also be appropriate to widen the remit of the urban workstream to actively raise awareness amongst the general public about the status of these indicators. This would ensure that people are conscious of the issues and would encourage involvement of people living within urban areas.

9.5 Potential new partners

The following organisations have been suggested as potential partners for the Urban Workstream Group:

- Groundwork
- The Grazing Animals Project (GAP)
- British Trust for Ornithology (BTO)
- The UK Biodiversity Partnership
- CABI Space
- Green Flag Award Scheme
- The Royal Society for the Protection of Birds (RSPB)
- People's Trust for Endangered Species
- The London Wildlife Trust

- New Homes Garden Awards
- National garden stores
- Association of Local Government Ecologists (ALGE)

10 References

- CABE SPACE. 2004. *A guide to producing park and green space management plans*. London: CABE Space.
- CABE SPACE. 2004. *Green Flag Award winners 2004/2005*. London: CABE Space.
- CABE SPACE. 2004. *Green space strategies – a good practice guide*. London: CABE Space.
- CABE SPACE. 2004. *Parks need people*. London: CABE Space.
- CLEARY, R., and others. *The BTO house sparrow questionnaire*. Thetford: BTO.
- DEFRA. 2001. *Survey of the public attitudes to quality of life and to the environment*. London: Defra publications.
- DEFRA. 2002. *Working with the grain of nature*. London: Defra Publications.
- DEFRA. 2003. *Measuring progress: baseline assessment*. London: Defra Publications.
- DEFRA. 2003. *Working with the grain of nature – a biodiversity strategy for England. The England Biodiversity Group's Annual Stock Take 2002-2003*. London: Defra Publications.
- DEFRA. 2003. *Working with the grain of nature – a biodiversity strategy for England, Part Two: Indicators*. Draft Document. London: Defra Publications.
- DTLR. 2002. *green spaces, better places – summary of the final report of the Urban Green Spaces Taskforce*. London: DTLR.
- ENGLISH NATURE. 2003. *England's best wildlife and geological sites*. Peterborough: English Nature.
- ENGLISH NATURE. 2003. *Wildlife-friendly gardening: a general guide*. Peterborough: English Nature.
- GAP. 2003. *Local grazing schemes – a best practice guide* (second edition). Grazing Animals Project.
- GASTON, K.J., and others. 2004. Gardens and wildlife – the BUGS project. *British Wildlife*, 1-9.
- GOVERNMENT STATISTICAL SERVICE. 1999. *Quality of Life Counts*. London: Defra Publications.
- GOVERNMENT STATISTICAL SERVICES. 1999. *A better quality of life: a strategy for sustainable development for the UK*. London: Defra Publications.
- GROUNDWORK. 2004. *Building sustainable communities through joint environmental action*. Birmingham: Groundwork.

- JNCC. 1998. A statement on common standards for monitoring designated sites. Peterborough: JNCC.
- HANDLEY, J., and others. 2003. Accessible natural green space standards in towns and cities. *English Nature Research Reports*, No. 526.
- MACHIN, N. 2001. *Planning for the wild*. London Wildlife Trust.
- MAYOR OF LONDON. (2002. *Connecting with London's nature: The Mayor's biodiversity strategy*. Greater London Authority.
- ODPM. 2004. *Consultation on Planning Policy Statement 9: Biodiversity and Geological Conservation*.
- ODPM. 2002. *Living places – cleaner, safer, greener*. West Yorkshire: ODPM.
- ODPM. 2002. *Planning Policy Guidance 9: Nature Conservation*.
- ODPM. 2002. *Survey of English housing - provisional results: 2001-02*. West Yorkshire: ODPM.
- ODPM. 2004. *The Egan review – skills for sustainable communities*. West Yorkshire: ODPM.
- ODPM. 2004. *Planning Policy Statement 11: Regional Spatial Strategies*. London: ODPM.
- ODPM. 2004. *Planning Policy Statement 12: Local Development Frameworks*. London: ODPM.
- RAVEN, M.J., NOBLE, D.G., & BAILLIE, S.R. 2003. *The Breeding Bird Survey 2002*. Thetford: BTO.
- RAVEN, M.J., NOBLE, D.G., & BAILLIE, S.R. 2003. *The Breeding Bird Survey 2002*. Thetford: BTO.
- RSPB. 2003. *The state of the UK's birds*. Sandy: RSPB.
- SOUTHEND-ON-SEA BOROUGH COUNCIL. 1994. *Local Plan*.
- Stroud District Council. 2003. *Local plan*.
- THE WILDLIFE TRUSTS. 2004. *For peat's sake*. Nottinghamshire: The Wildlife Trusts.
- UNIVERSITY OF WEST ENGLAND BRISTOL & NEW ECONOMICS FOUNDATION. 2003. *Making indicators count*. UWE.

Websites

Agenda 21: <http://www.un.org/esa/sustdev/csd/csd.htm>

Association of Local Government Ecologists: www.alge.org.uk

Black Redstarts: www.blackredstarts.org.uk

British Trust for Ornithology: www.bto.org

BUGS Project: www.shef.ac.uk/uni/projects/bugs/

CABE Space: www.cabespace.org.uk

Convention on Biological Diversity: www.biodiv.org

Directgov: www.directgov.uk

English Nature: www.english-nature.org.uk

Grazing Animals Project (GAP): www.grazinganimalsproject.info/

Green Flag Award: www.greenflagaward.org.uk

Green Roofs: www.greenroofs.co.uk

Heritage Lottery Fund: www.hlf.org.uk

Joint Nature Conservation Committee: www.jncc.gov.uk

Living Roofs: www.livingroofs.org.uk

London Swifts: www.londons-swifts.org.uk

London Wildlife Trust: www.wildlondon.org.uk

MAGIC: www.magic.gov.uk

New Homes Garden Awards: www.newhomesgardenawards.co.uk

Office of the Deputy Prime Minister: www.odpm.gov.uk

Planning Portal: www.planningportal.gov.uk

Royal Society for the Protection of Birds: www.rspb.org.uk

Southend-on-sea Borough Council: www.southend.gov.uk

Stroud District Council: www.stroud.gov.uk

Sustainable Construction: www.ecde.co.uk/sdc

United Kingdom Biodiversity Action Plan: www.ukbap.org.uk

University of Sheffield: www.newhomesgardenawards.co.uk

Appendices

Appendix I. Urban SSSIs as defined by the revised methodology

SSSI_Name	Habitat type of SSSI units	Area of SSSI unit (sq km)	Condition	Proportion of buffer in urban area
Ashwell Springs	Rivers and streams	0.00252056	Favourable	61%
Avenue Meadow	Neutral grassland	0.00470927	Favourable	47%
Badgeworth	Standing open water and canals	0.00062713	Favourable	41%
Badgeworth	Improved grassland	0.0294162	Favourable	41%
Banstead Downs	Calcareous grassland	0.439418	Favourable	89%
Banstead Downs	Calcareous grassland	0.492963	Favourable	89%
Banstead Downs	Calcareous grassland	0.334313	Favourable	89%
Barn Elms Wetland Centre	Standing open water and canals	0.29843	Favourable	59%
Basingstoke Canal	Standing open water and canals	0.00740777	Unfavourable	41%
Basingstoke Canal	Standing open water and canals	0.0704341	Unfavourable	41%
Basingstoke Canal	Standing open water and canals	0.156454	Unfavourable	41%
Basingstoke Canal	Standing open water and canals	0.227492	Unfavourable	41%
Basingstoke Canal	Standing open water and canals	0.0213617	Unfavourable	41%
Basingstoke Canal	Standing open water and canals	0.0989875	Unfavourable	41%
Basingstoke Canal	Dwarf shrub heath	0.0611289	Unfavourable	41%
Basingstoke Canal	Standing open water and canals	0.0214428	Favourable	41%
Basingstoke Canal	Standing open water and canals	0.0442245	Unfavourable	41%
Basingstoke Canal	Standing open water and canals	0.0964081	Unfavourable	41%
Basingstoke Canal	Standing open water and canals	0.0481197	Unfavourable	41%
Basingstoke Canal	Standing open water and canals	0.10845	Favourable	41%
Basingstoke Canal	Standing open water and canals	0.0110264	Unfavourable	41%
Basingstoke Canal	Standing open water and canals	0.0385744	Unfavourable	41%
Bentley Priory	Neutral grassland	0.195364	Unfavourable	56%
Bentley Priory	Acid grassland	0.0917281	Unfavourable	56%
Bentley Priory	Standing open water and canals	0.0172289	Favourable	56%
Bentley Priory	Neutral grassland	0.0225816	Unfavourable	56%
Bentley Priory	Neutral grassland	0.0239444	Unfavourable	56%
Bentley Priory	Neutral grassland	0.0622783	Unfavourable	56%
Bentley Priory	Broadleaved, mixed and yew woodland	0.153191	Favourable	56%
Billacombe	Neutral grassland	0.019647	Favourable	41%
Bingley South Bog	Fen, marsh and swamp	0.0444515	Unfavourable	86%
Bixley Heath	Fen, marsh and swamp	0.0227173	Favourable	73%
Bixley Heath	Dwarf shrub heath	0.0280971	Favourable	73%
Blackwater Valley	Neutral grassland	0.0547169	Unfavourable	82%
Blackwater Valley	Neutral grassland	0.0625587	Favourable	82%
Blackwater Valley	Neutral grassland	0.0917181	Favourable	82%
Blackwater Valley	Neutral grassland	0.0401236	Favourable	82%
Blackwater Valley	Neutral grassland	0.058442	Favourable	82%
Blackwater Valley	Broadleaved, mixed and yew woodland	0.0316662	Unfavourable	82%
Bliss Gate Pastures	Neutral grassland	0.00783174	Unfavourable	79%
Bliss Gate Pastures	Neutral grassland	0.0122792	Favourable	79%
Blow's Down	Calcareous grassland	0.136366	Favourable	58%
Blow's Down	Calcareous grassland	0.197158	Favourable	58%
Boldon Pastures	Neutral grassland	0.0355283	Favourable	57%
Botcheston Bog	Neutral grassland	0.0284768	Favourable	45%
Bourne Valley	Dwarf shrub heath	0.0464857	Unfavourable	90%
Bourne Valley	Dwarf shrub heath	0.0423355	Favourable	90%
Bourne Valley	Dwarf shrub heath	0.0465268	Favourable	90%
Bourne Valley	Dwarf shrub heath	0.0145145	Unfavourable	90%
Bourne Valley	Dwarf shrub heath	0.0163082	Unfavourable	90%
Bourne Valley	Dwarf shrub heath	0.241364	Unfavourable	90%
Bourne Valley	Dwarf shrub heath	0.00299091	Favourable	90%
Bourne Valley	Dwarf shrub heath	0.0111704	Unfavourable	90%
Bourne Valley	Dwarf shrub heath	0.247103	Unfavourable	90%
Bourne Valley	Dwarf shrub heath	0.026904	Unfavourable	90%

SSSI_Name	Habitat type of SSSI units	Area of SSSI unit (sq km)	Condition	Proportion of buffer in urban area
Bourne Valley	Dwarf shrub heath	0.0319271	Unfavourable	90%
Brasenose Wood & Shotover Hill	Neutral grassland	0.067995	Favourable	43%
Brasenose Wood & Shotover Hill	Broadleaved, mixed and yew woodland	0.39809	Favourable	43%
Brasenose Wood & Shotover Hill	Broadleaved, mixed and yew woodland	0.493753	Favourable	43%
Brasenose Wood & Shotover Hill	Acid grassland	0.132538	Favourable	43%
Bray Meadows	Neutral grassland	0.0269323	Favourable	58%
Bray Meadows	Neutral grassland	0.0402161	Favourable	58%
Brent Reservoir	Standing open water and canals	0.365053	Favourable	84%
Brent Reservoir	Standing open water and canals	0.192188	Favourable	84%
Brent Reservoir	Standing open water and canals	0.136445	Favourable	84%
Bryanston	Built up areas and gardens	0.00283179	Favourable	48%
Bugdens Copse & Meadows	Broadleaved, mixed and yew woodland	0.0145648	Favourable	95%
Bugdens Copse & Meadows	Neutral grassland	0.00399286	Favourable	95%
Bugdens Copse & Meadows	Broadleaved, mixed and yew woodland	0.0336842	Favourable	95%
Bugdens Copse & Meadows	Neutral grassland	0.0234536	Unfavourable	95%
Bullock Wood	Broadleaved, mixed and yew woodland	0.23519	Unfavourable	46%
Canford Heath	Dwarf shrub heath	0.168884	Favourable	52%
Canford Heath	Dwarf shrub heath	1.08833	Favourable	52%
Canford Heath	Dwarf shrub heath	0.210061	Favourable	52%
Canford Heath	Dwarf shrub heath	0.878365	Favourable	52%
Canford Heath	Dwarf shrub heath	0.340552	Favourable	52%
Canford Heath	Dwarf shrub heath	0.158717	Unfavourable	52%
Canford Heath	Dwarf shrub heath	0.308124	Unfavourable	52%
Canford Heath	Built up areas and gardens	0.00353534	Unfavourable	52%
Canford Heath	Built up areas and gardens	0.0233628	Unfavourable	52%
Canford Heath	Dwarf shrub heath	0.0124003	Unfavourable	52%
Canford Heath	Dwarf shrub heath	0.32687	Unfavourable	52%
Canford Heath	Dwarf shrub heath	0.115053	Unfavourable	52%
Canford Heath	Dwarf shrub heath	0.0539032	Unfavourable	52%
Canford Heath	Dwarf shrub heath	0.00375647	Unfavourable	52%
Canford Heath	Dwarf shrub heath	0.177173	Unfavourable	52%
Canford Heath	Dwarf shrub heath	0.188271	Unfavourable	52%
Canford Heath	Dwarf shrub heath	0.0750169	Favourable	52%
Castle Eden Dene	Broadleaved, mixed and yew woodland	0.0599056	Favourable	41%
Castle Eden Dene	Neutral grassland	0.0415334	Favourable	41%
Castle Eden Dene	Broadleaved, mixed and yew woodland	0.132754	Favourable	41%
Castle Eden Dene	Broadleaved, mixed and yew woodland	0.1315	Favourable	41%
Castle Eden Dene	Broadleaved, mixed and yew woodland	0.168183	Unfavourable	41%
Castle Eden Dene	Broadleaved, mixed and yew woodland	0.171691	Favourable	41%
Castle Eden Dene	Broadleaved, mixed and yew woodland	0.0770645	Favourable	41%
Castle Eden Dene	Broadleaved, mixed and yew woodland	0.0988185	Favourable	41%
Castle Eden Dene	Broadleaved, mixed and yew woodland	0.177356	Favourable	41%
Castle Eden Dene	Broadleaved, mixed and yew woodland	0.0798323	Favourable	41%
Castle Eden Dene	Broadleaved, mixed and yew woodland	0.162394	Favourable	41%
Castle Eden Dene	Neutral grassland	0.068145	Favourable	41%
Castle Eden Dene	Broadleaved, mixed and yew woodland	0.171765	Favourable	41%
Castle Eden Dene	Neutral grassland	0.0186843	Favourable	41%
Castle Eden Dene	Broadleaved, mixed and yew woodland	0.0320487	Favourable	41%
Castle Eden Dene	Broadleaved, mixed and yew woodland	0.12797	Favourable	41%
Castle Eden Dene	Broadleaved, mixed and yew woodland	0.100367	Favourable	41%
Castle Eden Dene	Broadleaved, mixed and yew woodland	0.0700176	Favourable	41%
Chapel Hill	Neutral grassland	0.00222875	Favourable	88%
Charnock Richard Pasture	Neutral grassland	0.0118775	Unfavourable	68%
Cherry Hinton Pit	Calcareous grassland	0.0862277	Unfavourable	42%
Cherry Hinton Pit	Calcareous grassland	0.031726	Favourable	42%
Cherry Hinton Pit	Calcareous grassland	0.00981137	Unfavourable	42%
Chingford Reservoirs	Standing open water and canals	1.804	Favourable	54%
Chingford Reservoirs	Standing open water and canals	1.10846	Favourable	54%

SSSI_Name	Habitat type of SSSI units	Area of SSSI unit (sq km)	Condition	Proportion of buffer in urban area
Chingford Reservoirs	Standing open water and canals	0.955412	Favourable	54%
Church Ings	Neutral grassland	0.0706158	Favourable	43%
Coalville Meadows	Neutral grassland	0.0605007	Favourable	52%
Colony Bog & Bagshot Heath	Dwarf shrub heath	0.252342	Favourable	50%
Colony Bog & Bagshot Heath	Dwarf shrub heath	6.34614	Unfavourable	50%
Colony Bog & Bagshot Heath	Dwarf shrub heath	0.0127756	Unfavourable	50%
Colony Bog & Bagshot Heath	Dwarf shrub heath	0.0316799	Unfavourable	50%
Colony Bog & Bagshot Heath	Dwarf shrub heath	0.130922	Unfavourable	50%
Colony Bog & Bagshot Heath	Dwarf shrub heath	0.194701	Unfavourable	50%
Colony Bog & Bagshot Heath	Dwarf shrub heath	0.0334316	Unfavourable	50%
Colony Bog & Bagshot Heath	Dwarf shrub heath	0.160699	Unfavourable	50%
Colony Bog & Bagshot Heath	Dwarf shrub heath	0.619537	Favourable	50%
Colony Bog & Bagshot Heath	Neutral grassland	0.0527922	Favourable	50%
Colony Bog & Bagshot Heath	Dwarf shrub heath	0.207658	Unfavourable	50%
Colony Bog & Bagshot Heath	Neutral grassland	0.0410609	Unfavourable	50%
Colony Bog & Bagshot Heath	Dwarf shrub heath	0.0522457	Unfavourable	50%
Colony Bog & Bagshot Heath	Dwarf shrub heath	0.933375	Unfavourable	50%
Colony Bog & Bagshot Heath	Dwarf shrub heath	0.517677	Unfavourable	50%
Colony Bog & Bagshot Heath	Dwarf shrub heath	0.0288491	Unfavourable	50%
Colony Bog & Bagshot Heath	Fen, marsh and swamp	0.259453	Favourable	50%
Colony Bog & Bagshot Heath	Dwarf shrub heath	0.230197	Favourable	50%
Colony Bog & Bagshot Heath	Dwarf shrub heath	0.816523	Favourable	50%
Colony Bog & Bagshot Heath	Dwarf shrub heath	0.376212	Favourable	50%
Combe Down & Bathampton Down Mines	Inland rock	0.00012011	Unfavourable	46%
Combe Down & Bathampton Down Mines	Inland rock	0.000427252	Unfavourable	46%
Combe Down & Bathampton Down Mines	Inland rock	0.035935	Favourable	46%
Combe Down & Bathampton Down Mines	Inland rock	5.51569E-06	Favourable	46%
Combe Down & Bathampton Down Mines	Inland rock	0.00338689	Favourable	46%
Combe Down & Bathampton Down Mines	Inland rock	0.0124831	Favourable	46%
Combe Down & Bathampton Down Mines	Inland rock	0.000382971	Favourable	46%
Combe Down & Bathampton Down Mines	Inland rock	0.00743328	Favourable	46%
Combe Down & Bathampton Down Mines	Inland rock	0.000132467	Favourable	46%
Combe Down & Bathampton Down Mines	Inland rock	0.000713517	Favourable	46%
Combe Down & Bathampton Down Mines	Inland rock	0.000208363	Favourable	46%
Combe Down & Bathampton Down Mines	Inland rock	0.00138138	Favourable	46%
Cooper's Hill	Dwarf shrub heath	0.0282072	Unfavourable	49%
Cooper's Hill	Dwarf shrub heath	0.149514	Unfavourable	49%
Corfe & Barrow Hills	Dwarf shrub heath	0.0030186	Favourable	51%
Corfe & Barrow Hills	Dwarf shrub heath	0.330578	Unfavourable	51%
Corfe & Barrow Hills	Dwarf shrub heath	0.0122265	Favourable	51%
Corfe & Barrow Hills	Dwarf shrub heath	0.0858615	Favourable	51%
Corfe & Barrow Hills	Dwarf shrub heath	0.0863534	Favourable	51%
Corfe & Barrow Hills	Dwarf shrub heath	0.217215	Favourable	51%
Corfe & Barrow Hills	Dwarf shrub heath	0.0832457	Unfavourable	51%
Corfe & Barrow Hills	Dwarf shrub heath	0.0588591	Unfavourable	51%
Corfe & Barrow Hills	Dwarf shrub heath	0.011708	Favourable	51%
Corfe & Barrow Hills	Dwarf shrub heath	0.123225	Unfavourable	51%
Croft Pasture	Neutral grassland	0.043788	Unfavourable	42%
Croft Pasture	Acid grassland	0.0178848	Unfavourable	42%
Crofton Woods	Broadleaved, mixed and yew woodland	0.0198647	Favourable	82%
Crofton Woods	Broadleaved, mixed and yew woodland	0.00672318	Favourable	82%
Crofton Woods	Broadleaved, mixed and yew woodland	0.0160806	Favourable	82%
Crofton Woods	Broadleaved, mixed and yew woodland	0.221081	Favourable	82%
Crofton Woods	Broadleaved, mixed and yew woodland	0.312144	Favourable	82%
Crofton Woods	Broadleaved, mixed and yew woodland	0.0145713	Favourable	82%
Crofton Woods	Broadleaved, mixed and yew woodland	0.0179278	Favourable	82%
Crofton Woods	Broadleaved, mixed and yew woodland	0.062978	Favourable	82%
Crofton Woods	Broadleaved, mixed and yew woodland	0.124687	Favourable	82%

SSSI_Name	Habitat type of SSSI units	Area of SSSI unit (sq km)	Condition	Proportion of buffer in urban area
Croham Hurst	Broadleaved, mixed and yew woodland	0.339227	Favourable	79%
Danbury Common	Dwarf shrub heath	0.000102302	Favourable	41%
Danbury Common	Dwarf shrub heath	0.000213464	Favourable	41%
Danbury Common	Dwarf shrub heath	0.00102351	Favourable	41%
Danbury Common	Dwarf shrub heath	0.00112348	Favourable	41%
Danbury Common	Dwarf shrub heath	0.00278515	Favourable	41%
Danbury Common	Dwarf shrub heath	0.00317949	Favourable	41%
Danbury Common	Dwarf shrub heath	0.00365674	Favourable	41%
Danbury Common	Dwarf shrub heath	0.00569877	Favourable	41%
Danbury Common	Dwarf shrub heath	0.00622963	Favourable	41%
Danbury Common	Dwarf shrub heath	0.0112714	Favourable	41%
Danbury Common	Dwarf shrub heath	0.0161298	Favourable	41%
Danbury Common	Dwarf shrub heath	0.0202172	Favourable	41%
Danbury Common	Dwarf shrub heath	0.0355454	Favourable	41%
Danbury Common	Acid grassland	0.0330587	Favourable	41%
Danbury Common	Dwarf shrub heath	0.00086407	Favourable	41%
Danbury Common	Dwarf shrub heath	0.00702159	Favourable	41%
Danbury Common	Dwarf shrub heath	0.242891	Favourable	41%
Danbury Common	Dwarf shrub heath	0.198565	Favourable	41%
Danbury Common	Broadleaved, mixed and yew woodland	0.120061	Favourable	41%
Darras Hall Grassland	Neutral grassland	0.0409132	Favourable	97%
Dean Hall Coach House & Cellar	Built up areas and gardens	0.000053198	Favourable	46%
Dean Hall Coach House & Cellar	Built up areas and gardens	0.000176103	Favourable	46%
Dibbinsdale	Broadleaved, mixed and yew woodland	0.0282332	Unfavourable	47%
Dibbinsdale	Broadleaved, mixed and yew woodland	0.0390733	Unfavourable	47%
Dibbinsdale	Broadleaved, mixed and yew woodland	0.0148028	Favourable	47%
Dibbinsdale	Broadleaved, mixed and yew woodland	0.0303886	Favourable	47%
Dibbinsdale	Broadleaved, mixed and yew woodland	0.0814507	Unfavourable	47%
Dibbinsdale	Broadleaved, mixed and yew woodland	0.0252541	Unfavourable	47%
Dibbinsdale	Broadleaved, mixed and yew woodland	0.0943878	Unfavourable	47%
Dibbinsdale	Broadleaved, mixed and yew woodland	0.182833	Unfavourable	47%
Dibbinsdale	Broadleaved, mixed and yew woodland	0.0537591	Unfavourable	47%
Doxey & Tillington Marshes	Neutral grassland	0.082333	Favourable	65%
Doxey & Tillington Marshes	Fen, marsh and swamp	0.0274511	Favourable	65%
Doxey & Tillington Marshes	Neutral grassland	0.0712575	Unfavourable	65%
Doxey & Tillington Marshes	Fen, marsh and swamp	0.122819	Unfavourable	65%
Doxey & Tillington Marshes	Neutral grassland	0.0958654	Unfavourable	65%
Doxey & Tillington Marshes	Neutral grassland	0.157179	Unfavourable	65%
Doxey & Tillington Marshes	Neutral grassland	0.159712	Unfavourable	65%
Doxey & Tillington Marshes	Neutral grassland	0.323384	Unfavourable	65%
Doxey & Tillington Marshes	Fen, marsh and swamp	0.0413171	Favourable	65%
Doxey & Tillington Marshes	Fen, marsh and swamp	0.0144903	Unfavourable	65%
Doxey & Tillington Marshes	Fen, marsh and swamp	0.137155	Favourable	65%
Doxey & Tillington Marshes	Fen, marsh and swamp	0.0611514	Unfavourable	65%
East Harnham Meadows	Fen, marsh and swamp	0.00669898	Unfavourable	63%
East Harnham Meadows	Neutral grassland	0.0224298	Unfavourable	63%
East Harnham Meadows	Neutral grassland	0.0270658	Unfavourable	63%
East Harnham Meadows	Neutral grassland	0.119222	Favourable	63%
Eaton Chalk Pit	Inland rock	0.0015627	Favourable	100%
Edgbaston Pool	Broadleaved, mixed and yew woodland	0.0330829	Favourable	73%
Edgbaston Pool	Standing open water and canals	0.126154	Favourable	73%
Ellenborough Park West	Built up areas and gardens	0.0184524	Favourable	74%
Ensor's Pool	Standing open water and canals	0.0359928	Favourable	59%
Epping Forest	Acid grassland	0.111469	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.901329	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.0118685	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.0717878	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.243206	Unfavourable	58%

SSSI_Name	Habitat type of SSSI units	Area of SSSI unit (sq km)	Condition	Proportion of buffer in urban area
Epping Forest	Broadleaved, mixed and yew woodland	0.304358	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.928158	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.587403	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.550209	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.0969498	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.131883	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.853447	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.000663822	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.0015046	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.00193281	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.00266077	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.00648044	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.0136678	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.0369372	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.0823499	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.419427	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.111406	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.294973	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.237177	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.470269	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.643253	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.0297019	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.061748	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.670331	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.049028	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.36463	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.114726	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.236002	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.249456	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.95724	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.165263	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.200876	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.0161536	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.0382895	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.162373	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.459259	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.355032	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.401875	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.261607	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.79884	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.370598	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.542885	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.666285	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.785436	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.43884	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.161296	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.43758	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.347436	Favourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.727162	Unfavourable	58%
Epping Forest	Broadleaved, mixed and yew woodland	0.715998	Favourable	58%
Epsom & Ashted Commons	Broadleaved, mixed and yew woodland	0.0614814	Favourable	45%
Epsom & Ashted Commons	Broadleaved, mixed and yew woodland	0.997328	Unfavourable	45%
Epsom & Ashted Commons	Standing open water and canals	0.00570169	Unfavourable	45%
Epsom & Ashted Commons	Standing open water and canals	0.0511398	Unfavourable	45%
Epsom & Ashted Commons	Neutral grassland	0.269225	Favourable	45%
Epsom & Ashted Commons	Broadleaved, mixed and yew woodland	0.166776	Unfavourable	45%
Epsom & Ashted Commons	Broadleaved, mixed and yew woodland	0.269406	Favourable	45%
Epsom & Ashted Commons	Dwarf shrub heath	0.0015007	Favourable	45%

SSSI_Name	Habitat type of SSSI units	Area of SSSI unit (sq km)	Condition	Proportion of buffer in urban area
Epsom & Ashtead Commons	Dwarf shrub heath	0.00732002	Favourable	45%
Epsom & Ashtead Commons	Dwarf shrub heath	0.00829176	Favourable	45%
Epsom & Ashtead Commons	Dwarf shrub heath	0.11743	Favourable	45%
Epsom & Ashtead Commons	Broadleaved, mixed and yew woodland	0.625349	Favourable	45%
Epsom & Ashtead Commons	Neutral grassland	0.243409	Favourable	45%
Epsom & Ashtead Commons	Broadleaved, mixed and yew woodland	0.624178	Favourable	45%
Epsom & Ashtead Commons	Broadleaved, mixed and yew woodland	0.146333	Unfavourable	45%
Esher Commons	Broadleaved, mixed and yew woodland	0.321267	Unfavourable	46%
Esher Commons	Dwarf shrub heath	0.899297	Unfavourable	46%
Esher Commons	Standing open water and canals	0.0210788	Unfavourable	46%
Esher Commons	Broadleaved, mixed and yew woodland	0.0417451	Unfavourable	46%
Esher Commons	Broadleaved, mixed and yew woodland	0.303331	Unfavourable	46%
Esher Commons	Standing open water and canals	0.00840061	Unfavourable	46%
Esher Commons	Broadleaved, mixed and yew woodland	0.105274	Unfavourable	46%
Esher Commons	Broadleaved, mixed and yew woodland	0.307024	Unfavourable	46%
Esher Commons	Dwarf shrub heath	0.430526	Unfavourable	46%
Esher Commons	Dwarf shrub heath	0.0265862	Unfavourable	46%
Esher Commons	Dwarf shrub heath	0.0606187	Unfavourable	46%
Esher Commons	Dwarf shrub heath	0.550888	Unfavourable	46%
Esher Commons	Dwarf shrub heath	0.0292067	Unfavourable	46%
Esher Commons	Dwarf shrub heath	0.0307963	Unfavourable	46%
Esher Commons	Dwarf shrub heath	0.0430195	Unfavourable	46%
Esher Commons	Dwarf shrub heath	0.130118	Unfavourable	46%
Esher Commons	Dwarf shrub heath	0.299225	Unfavourable	46%
Farthing Downs & Happy Valley	Neutral grassland	0.0809944	Favourable	46%
Farthing Downs & Happy Valley	Broadleaved, mixed and yew woodland	0.165332	Favourable	46%
Farthing Downs & Happy Valley	Calcareous grassland	0.504834	Favourable	46%
Farthing Downs & Happy Valley	Calcareous grassland	0.0277797	Favourable	46%
Farthing Downs & Happy Valley	Calcareous grassland	0.287972	Favourable	46%
Farthing Downs & Happy Valley	Neutral grassland	0.133958	Unfavourable	46%
Fens Pools	Standing open water and canals	0.0416205	Favourable	86%
Fens Pools	Standing open water and canals	0.11358	Favourable	86%
Fens Pools	Standing open water and canals	0.00395458	Favourable	86%
Fens Pools	Standing open water and canals	0.026001	Favourable	86%
Fens Pools	Standing open water and canals	0.00296274	Favourable	86%
Fens Pools	Standing open water and canals	0.0185962	Favourable	86%
Fens Pools	Standing open water and canals	0.00175537	Favourable	86%
Fens Pools	Standing open water and canals	0.023423	Favourable	86%
Fens Pools	Standing open water and canals	0.00744596	Favourable	86%
Fens Pools	Standing open water and canals	0.00552909	Favourable	86%
Fens Pools	Standing open water and canals	0.139303	Favourable	86%
Ferndown Common	Dwarf shrub heath	0.113431	Favourable	51%
Ferndown Common	Dwarf shrub heath	0.0684552	Favourable	51%
Ferndown Common	Dwarf shrub heath	0.31964	Favourable	51%
Ferndown Common	Dwarf shrub heath	0.142235	Favourable	51%
Fleet Pond	Standing open water and canals	0.453892	Unfavourable	62%
Fleet Pond	Dwarf shrub heath	0.027731	Favourable	62%
Fleet Pond	Dwarf shrub heath	0.00173555	Unfavourable	62%
Flood Brook Clough	Broadleaved, mixed and yew woodland	0.0510696	Unfavourable	77%
Ford Green Reedbed	Fen, marsh and swamp	0.0558009	Unfavourable	78%
Freshwater Marshes	Fen, marsh and swamp	0.0533307	Favourable	60%
Freshwater Marshes	Fen, marsh and swamp	0.0162028	Unfavourable	60%
Freshwater Marshes	Fen, marsh and swamp	0.0145113	Unfavourable	60%
Freshwater Marshes	Built up areas and gardens	0.00272714	Unfavourable	60%
Freshwater Marshes	Fen, marsh and swamp	0.0458959	Favourable	60%
Freshwater Marshes	Fen, marsh and swamp	0.0572136	Unfavourable	60%
Freshwater Marshes	Fen, marsh and swamp	0.0425439	Favourable	60%
Friezeland Grassland	Acid grassland	0.0367811	Favourable	41%

SSSI_Name	Habitat type of SSSI units	Area of SSSI unit (sq km)	Condition	Proportion of buffer in urban area
Fulford Ings	Fen, marsh and swamp	0.00381972	Unfavourable	45%
Fulford Ings	Fen, marsh and swamp	0.0210466	Unfavourable	45%
Fulford Ings	Neutral grassland	0.00275568	Favourable	45%
Fulford Ings	Neutral grassland	0.0567245	Favourable	45%
Fulford Ings	Fen, marsh and swamp	0.00503304	Unfavourable	45%
Fulford Ings	Fen, marsh and swamp	0.0412322	Unfavourable	45%
Fulwell & Carley Hill Quarries	Calcareous grassland	0.00449144	Favourable	59%
Fulwell & Carley Hill Quarries	Calcareous grassland	0.0576547	Favourable	59%
Gomm Valley	Calcareous grassland	0.0435456	Favourable	42%
Grays Chalk Pit	Broadleaved, mixed and yew woodland	0.0233265	Favourable	74%
Grays Chalk Pit	Broadleaved, mixed and yew woodland	0.1494	Unfavourable	74%
Great Blencow Meadows & Fen	Neutral grassland	0.0795678	Favourable	40%
Great Wood & Dodd's Grove	Broadleaved, mixed and yew woodland	0.329921	Favourable	50%
Great Wood & Dodd's Grove	Broadleaved, mixed and yew woodland	0.0412004	Favourable	50%
Gromford Meadow	Neutral grassland	0.0169621	Favourable	52%
Ham Common	Dwarf shrub heath	0.206207	Unfavourable	61%
Ham Common	Dwarf shrub heath	0.0139152	Unfavourable	61%
Ham Common	Dwarf shrub heath	0.00875087	Unfavourable	61%
Ham Common	Dwarf shrub heath	0.0246647	Favourable	61%
Ham Common	Dwarf shrub heath	0.00789775	Unfavourable	61%
Ham Common	Dwarf shrub heath	0.0678316	Favourable	61%
Hampstead Heath Woods	Broadleaved, mixed and yew woodland	0.0370245	Favourable	44%
Hampstead Heath Woods	Broadleaved, mixed and yew woodland	0.109096	Favourable	44%
Hampstead Heath Woods	Fen, marsh and swamp	0.0155948	Favourable	44%
Hangman's Wood & Dene Holes	Broadleaved, mixed and yew woodland	0.0519277	Favourable	87%
Harton Down Hill	Calcareous grassland	0.0102951	Favourable	72%
Herald Way Marsh	Bogs	0.109328	Favourable	40%
Hesledon Moor West	Standing open water and canals	0.00443769	Favourable	43%
Hesledon Moor West	Broadleaved, mixed and yew woodland	0.0163568	Favourable	43%
Hesledon Moor West	Dwarf shrub heath	0.0561804	Favourable	43%
Heswall Dales	Dwarf shrub heath	0.296469	Unfavourable	83%
Hetton Bogs	Fen, marsh and swamp	0.0827042	Favourable	60%
Houghton Regis Marl Lakes	Calcareous grassland	0.155482	Favourable	47%
Houghton Regis Marl Lakes	Standing open water and canals	0.00299499	Favourable	47%
Houghton Regis Marl Lakes	Standing open water and canals	0.0134028	Favourable	47%
Houghton Regis Marl Lakes	Standing open water and canals	0.0385312	Favourable	47%
Howe Park Wood	Broadleaved, mixed and yew woodland	0.241904	Favourable	54%
Hucclecote Meadows	Neutral grassland	0.0167894	Unfavourable	49%
Hucclecote Meadows	Neutral grassland	0.0162904	Unfavourable	49%
Hucclecote Meadows	Neutral grassland	0.0240459	Unfavourable	49%
Huddersfield Narrow Canal	Standing open water and canals	0.0654254	Favourable	70%
Huddersfield Narrow Canal	Standing open water and canals	0.054913	Favourable	70%
Iffley Meadows	Neutral grassland	0.00192086	Unfavourable	51%
Iffley Meadows	Neutral grassland	0.0215744	Unfavourable	51%
Iffley Meadows	Neutral grassland	0.0629722	Favourable	51%
Iffley Meadows	Neutral grassland	0.14346	Favourable	51%
Iffley Meadows	Neutral grassland	0.131479	Favourable	51%
Inkpen Crocus Fields	Neutral grassland	0.0310696	Favourable	42%
Ipsley Alders Marsh	Fen, marsh and swamp	0.151118	Favourable	80%
Jenny Dam	Standing open water and canals	0.00817021	Favourable	44%
Jockey Fields	Neutral grassland	0.0464161	Favourable	45%
Jockey Fields	Neutral grassland	0.00294362	Favourable	45%
Jockey Fields	Neutral grassland	0.129848	Favourable	45%
Keston & Hayes Commons	Dwarf shrub heath	0.18219	Favourable	41%
Keston & Hayes Commons	Fen, marsh and swamp	0.00176402	Favourable	41%
Keston & Hayes Commons	Neutral grassland	0.0568751	Favourable	41%
Keston & Hayes Commons	Dwarf shrub heath	0.0247514	Favourable	41%
Kirk Deighton	Improved grassland	0.0408685	Favourable	41%

SSSI_Name	Habitat type of SSSI units	Area of SSSI unit (sq km)	Condition	Proportion of buffer in urban area
Lake Allotments	Built up areas and gardens	0.00256456	Favourable	58%
Lardon Chase	Calcareous grassland	0.147064	Favourable	45%
Leeds-Liverpool Canal	Standing open water and canals	0.0728057	Favourable	48%
Leeds-Liverpool Canal	Standing open water and canals	0.0533646	Favourable	48%
Leeds-Liverpool Canal	Standing open water and canals	0.0400345	Favourable	48%
Lindow Common	Dwarf shrub heath	0.176766	Favourable	67%
Lingwood Meadows, Earl Stonham	Neutral grassland	0.0270287	Favourable	40%
Linton Common	Calcareous grassland	0.0094291	Unfavourable	45%
London Road Industrial Estate, Brandon	Built up areas and gardens	0.00129059	Favourable	75%
Lordswell Field, Eriswell	Acid grassland	0.032812	Favourable	77%
Lorton	Broadleaved, mixed and yew woodland	0.00942281	Favourable	52%
Lorton	Broadleaved, mixed and yew woodland	0.0608463	Favourable	52%
Lorton	Neutral grassland	0.143054	Favourable	52%
Lower Test Valley	Fen, marsh and swamp	0.271329	Favourable	42%
Lower Test Valley	Fen, marsh and swamp	0.0504766	Favourable	42%
Lower Test Valley	Fen, marsh and swamp	0.0730733	Favourable	42%
Lower Test Valley	Littoral sediment	0.377668	Favourable	42%
Lower Test Valley	Littoral sediment	0.0776189	Favourable	42%
Lower Test Valley	Neutral grassland	0.17051	Favourable	42%
Lower Test Valley	Littoral sediment	0.0722361	Favourable	42%
Lower Test Valley	Neutral grassland	0.324564	Favourable	42%
Lower Test Valley	Neutral grassland	0.00386997	Favourable	42%
Luscombe Valley	Dwarf shrub heath	0.0119489	Favourable	74%
Luscombe Valley	Dwarf shrub heath	0.0473805	Favourable	74%
Luscombe Valley	Dwarf shrub heath	0.258991	Favourable	74%
Luscombe Valley	Dwarf shrub heath	0.261321	Favourable	74%
Lye Valley	Fen, marsh and swamp	0.00537486	Unfavourable	71%
Lye Valley	Fen, marsh and swamp	0.0180367	Favourable	71%
Lymington River Reed Beds	Neutral grassland	0.0589097	Favourable	45%
Lymington River Reed Beds	Fen, marsh and swamp	0.0872502	Unfavourable	45%
Lymington River Reed Beds	Fen, marsh and swamp	0.123137	Unfavourable	45%
Lymington River Reed Beds	Fen, marsh and swamp	0.0301275	Favourable	45%
Lymington River Reed Beds	Fen, marsh and swamp	0.0307543	Favourable	45%
Lymington River Reed Beds	Fen, marsh and swamp	0.0430963	Favourable	45%
Lymington River Reed Beds	Fen, marsh and swamp	0.0442088	Favourable	45%
Lyppard Grange Ponds	Broadleaved, mixed and yew woodland	0.0100271	Favourable	84%
Lyppard Grange Ponds	Standing open water and canals	0.000291614	Favourable	84%
Lyppard Grange Ponds	Standing open water and canals	0.000577107	Favourable	84%
Maulden Church Meadow	Neutral grassland	0.0419001	Favourable	43%
Mill Meadows, Billericay	Neutral grassland	0.0676181	Unfavourable	61%
Millwater	Fen, marsh and swamp	0.0103046	Favourable	49%
Millwater	Acid grassland	0.00471779	Favourable	49%
Minchinhampton Common	Calcareous grassland	0.00843344	Unfavourable	56%
Minchinhampton Common	Calcareous grassland	0.0137634	Unfavourable	56%
Minchinhampton Common	Calcareous grassland	0.0225643	Unfavourable	56%
Minchinhampton Common	Calcareous grassland	0.0283085	Unfavourable	56%
Minchinhampton Common	Calcareous grassland	0.00773006	Favourable	56%
Minchinhampton Common	Calcareous grassland	0.0102436	Favourable	56%
Minchinhampton Common	Calcareous grassland	0.0180134	Favourable	56%
Minchinhampton Common	Calcareous grassland	0.0208514	Favourable	56%
Minchinhampton Common	Calcareous grassland	0.0570157	Favourable	56%
Minchinhampton Common	Calcareous grassland	0.108747	Favourable	56%
Minchinhampton Common	Calcareous grassland	0.102032	Favourable	56%
Minchinhampton Common	Calcareous grassland	0.286301	Favourable	56%
Minchinhampton Common	Calcareous grassland	0.310504	Favourable	56%
Minchinhampton Common	Calcareous grassland	0.0553996	Unfavourable	56%
Minchinhampton Common	Calcareous grassland	0.0982933	Unfavourable	56%
Minchinhampton Common	Calcareous grassland	0.186479	Unfavourable	56%

SSSI_Name	Habitat type of SSSI units	Area of SSSI unit (sq km)	Condition	Proportion of buffer in urban area
Minchinhampton Common	Calcareous grassland	0.522466	Unfavourable	56%
Minchinhampton Common	Calcareous grassland	0.0177049	Unfavourable	56%
Minchinhampton Common	Calcareous grassland	0.038958	Unfavourable	56%
Minchinhampton Common	Calcareous grassland	0.00555855	Favourable	56%
Minchinhampton Common	Calcareous grassland	0.0204694	Favourable	56%
Minsterley Meadows	Neutral grassland	0.0545407	Favourable	47%
Moorgreen Meadows	Acid grassland	0.0945136	Unfavourable	52%
Moorgreen Meadows	Broadleaved, mixed and yew woodland	0.0393712	Favourable	52%
Moorgreen Meadows	Acid grassland	0.00932126	Unfavourable	52%
Morcombelake	Neutral grassland	0.0251854	Favourable	40%
Morcombelake	Dwarf shrub heath	0.117658	Favourable	40%
Morcombelake	Neutral grassland	0.0293497	Unfavourable	40%
Morcombelake	Neutral grassland	0.0572651	Favourable	40%
Mutlow's Orchard	Neutral grassland	0.00909039	Favourable	48%
Muxton Marsh	Neutral grassland	0.0679984	Unfavourable	54%
New Hartley Ponds	Standing open water and canals	0.0152013	Unfavourable	44%
New Marston Meadows	Neutral grassland	0.217201	Favourable	49%
New Marston Meadows	Neutral grassland	0.0461177	Favourable	49%
New Marston Meadows	Neutral grassland	0.183674	Favourable	49%
Newport Canal	Standing open water and canals	0.0223749	Unfavourable	51%
Newport Canal	Standing open water and canals	0.0330877	Unfavourable	51%
Nob End	Calcareous grassland	0.0928041	Unfavourable	61%
Norsey Wood	Broadleaved, mixed and yew woodland	0.656188	Favourable	67%
Oakland Pasture	Neutral grassland	0.0104766	Unfavourable	61%
Old Bow & Old Ham Mines	Inland rock	0.398145	Favourable	51%
Old Bow & Old Ham Mines	Broadleaved, mixed and yew woodland	0.0150587	Favourable	51%
Old Bow & Old Ham Mines	Broadleaved, mixed and yew woodland	0.000190398	Favourable	51%
Old Bow & Old Ham Mines	Broadleaved, mixed and yew woodland	0.000982879	Favourable	51%
Old River Bed, Shrewsbury	Fen, marsh and swamp	0.0127204	Favourable	63%
Old River Bed, Shrewsbury	Fen, marsh and swamp	0.139048	Favourable	63%
Orwell Clunch Pit	Calcareous grassland	0.0186282	Favourable	44%
Oxleas Woodlands	Broadleaved, mixed and yew woodland	0.201339	Favourable	66%
Oxleas Woodlands	Broadleaved, mixed and yew woodland	0.404808	Favourable	66%
Oxleas Woodlands	Broadleaved, mixed and yew woodland	0.123362	Favourable	66%
Pamber Forest & Silchester Common	Neutral grassland	0.00789576	Unfavourable	47%
Pamber Forest & Silchester Common	Dwarf shrub heath	0.191204	Unfavourable	47%
Pamber Forest & Silchester Common	Broadleaved, mixed and yew woodland	1.88186	Favourable	47%
Pamber Forest & Silchester Common	Dwarf shrub heath	0.568792	Favourable	47%
Pamber Forest & Silchester Common	Broadleaved, mixed and yew woodland	0.0167189	Unfavourable	47%
Pamber Forest & Silchester Common	Neutral grassland	0.000318068	Unfavourable	47%
Pamber Forest & Silchester Common	Neutral grassland	0.00331704	Unfavourable	47%
Pamber Forest & Silchester Common	Broadleaved, mixed and yew woodland	0.0695667	Favourable	47%
Pamber Forest & Silchester Common	Neutral grassland	0.0149317	Favourable	47%
Pamber Forest & Silchester Common	Broadleaved, mixed and yew woodland	0.133271	Unfavourable	47%
Pamber Forest & Silchester Common	Neutral grassland	0.0116552	Favourable	47%
Pamber Forest & Silchester Common	Dwarf shrub heath	0.00526675	Unfavourable	47%
Pamber Forest & Silchester Common	Dwarf shrub heath	0.059993	Unfavourable	47%
Pamber Forest & Silchester Common	Broadleaved, mixed and yew woodland	0.00179616	Unfavourable	47%
Pamber Forest & Silchester Common	Dwarf shrub heath	0.067568	Unfavourable	47%
Pamber Forest & Silchester Common	Broadleaved, mixed and yew woodland	0.0100774	Favourable	47%
Pamber Forest & Silchester Common	Neutral grassland	0.0036282	Unfavourable	47%
Pamber Forest & Silchester Common	Bracken	0.000534977	Unfavourable	47%
Pamber Forest & Silchester Common	Bracken	0.00160376	Unfavourable	47%
Pamber Forest & Silchester Common	Bracken	0.0026202	Unfavourable	47%
Pamber Forest & Silchester Common	Neutral grassland	0.0167877	Unfavourable	47%
Pamber Forest & Silchester Common	Acid grassland	0.0433742	Favourable	47%
Pamber Forest & Silchester Common	Broadleaved, mixed and yew woodland	0.126747	Unfavourable	47%
Pamber Forest & Silchester Common	Neutral grassland	0.0549651	Unfavourable	47%

SSSI_Name	Habitat type of SSSI units	Area of SSSI unit (sq km)	Condition	Proportion of buffer in urban area
Pamber Forest & Silchester Common	Neutral grassland	0.0306437	Favourable	47%
Pamber Forest & Silchester Common	Neutral grassland	0.0651197	Unfavourable	47%
Pamber Forest & Silchester Common	Neutral grassland	0.00251942	Favourable	47%
Pamber Forest & Silchester Common	Neutral grassland	0.0244049	Favourable	47%
Parley Common	Dwarf shrub heath	0.0486667	Unfavourable	41%
Parley Common	Dwarf shrub heath	0.12125	Unfavourable	41%
Parley Common	Broadleaved, mixed and yew woodland	0.0133492	Unfavourable	41%
Parley Common	Dwarf shrub heath	0.00590637	Unfavourable	41%
Parley Common	Dwarf shrub heath	0.0153739	Unfavourable	41%
Parley Common	Dwarf shrub heath	0.0945299	Unfavourable	41%
Parley Common	Broadleaved, mixed and yew woodland	0.00851113	Unfavourable	41%
Parley Common	Dwarf shrub heath	0.0080746	Favourable	41%
Parley Common	Broadleaved, mixed and yew woodland	0.023319	Unfavourable	41%
Parley Common	Built up areas and gardens	0.00691216	Unfavourable	41%
Parley Common	Broadleaved, mixed and yew woodland	0.0485009	Favourable	41%
Parley Common	Dwarf shrub heath	0.0227008	Unfavourable	41%
Parley Common	Dwarf shrub heath	0.03083	Favourable	41%
Parley Common	Broadleaved, mixed and yew woodland	0.0117262	Favourable	41%
Parley Common	Dwarf shrub heath	0.170681	Unfavourable	41%
Parley Common	Dwarf shrub heath	0.0468945	Unfavourable	41%
Parley Common	Dwarf shrub heath	0.025319	Unfavourable	41%
Parley Common	Dwarf shrub heath	0.0982346	Unfavourable	41%
Parley Common	Dwarf shrub heath	0.0553899	Unfavourable	41%
Parley Common	Dwarf shrub heath	0.254899	Unfavourable	41%
Parley Common	Dwarf shrub heath	0.2013	Unfavourable	41%
Parley Common	Dwarf shrub heath	0.291499	Unfavourable	41%
Parley Common	Broadleaved, mixed and yew woodland	0.00620107	Unfavourable	41%
Parley Common	Dwarf shrub heath	0.0292485	Unfavourable	41%
Plymbridge Lane & Estover Road	Boundary and linear features	0.000299078	Favourable	56%
Plymbridge Lane & Estover Road	Boundary and linear features	0.00296605	Favourable	56%
Poole Bay Cliffs	Neutral grassland	0.0128514	Unfavourable	56%
Poole Bay Cliffs	Neutral grassland	0.0171555	Favourable	56%
Poole Bay Cliffs	Neutral grassland	0.0094341	Unfavourable	56%
Poole Bay Cliffs	Neutral grassland	0.00524632	Favourable	56%
Poole Bay Cliffs	Neutral grassland	0.0387119	Favourable	56%
Poole Bay Cliffs	Neutral grassland	0.00740797	Favourable	56%
Poole Bay Cliffs	Neutral grassland	0.000815374	Favourable	56%
Poole Bay Cliffs	Neutral grassland	0.00218883	Favourable	56%
Poole Bay Cliffs	Neutral grassland	0.0155132	Unfavourable	56%
Poole Bay Cliffs	Neutral grassland	0.00500698	Favourable	56%
Poole Bay Cliffs	Neutral grassland	0.00769115	Favourable	56%
Poole Bay Cliffs	Neutral grassland	0.00110198	Favourable	56%
Poole's Cavern & Grin Low Wood	Calcareous grassland	0.415351	Favourable	59%
Poolhay Meadows	Neutral grassland	0.0285999	Favourable	51%
Portholme	Neutral grassland	0.0321767	Unfavourable	49%
Portholme	Neutral grassland	0.0960226	Unfavourable	49%
Portholme	Neutral grassland	0.928925	Unfavourable	49%
Porton Meadows	Fen, marsh and swamp	0.00551825	Unfavourable	49%
Porton Meadows	Neutral grassland	0.0538855	Favourable	49%
Porton Meadows	Neutral grassland	0.00328876	Favourable	49%
Porton Meadows	Neutral grassland	0.0132153	Favourable	49%
Porton Meadows	Broadleaved, mixed and yew woodland	0.00581086	Favourable	49%
Porton Meadows	Broadleaved, mixed and yew woodland	0.00233574	Unfavourable	49%
Porton Meadows	Broadleaved, mixed and yew woodland	0.00899595	Unfavourable	49%
Porton Meadows	Neutral grassland	0.0332602	Favourable	49%
Porton Meadows	Neutral grassland	0.0135264	Unfavourable	49%
Porton Meadows	Broadleaved, mixed and yew woodland	0.0024858	Unfavourable	49%
Porton Meadows	Neutral grassland	0.00452655	Favourable	49%

SSSI_Name	Habitat type of SSSI units	Area of SSSI unit (sq km)	Condition	Proportion of buffer in urban area
Porton Meadows	Neutral grassland	0.0261235	Favourable	49%
Portsdown	Calcareous grassland	0.0635357	Favourable	49%
Portsdown	Calcareous grassland	0.20198	Favourable	49%
Portsdown	Calcareous grassland	0.0196341	Unfavourable	49%
Portsdown	Calcareous grassland	0.196769	Favourable	49%
Portsdown	Calcareous grassland	0.179823	Favourable	49%
Portsdown	Calcareous grassland	0.0118112	Not assessed	49%
Portsdown	Calcareous grassland	0.0179213	Not assessed	49%
Potter & Scarning Fens	Fen, marsh and swamp	0.0257707	Unfavourable	60%
Potter & Scarning Fens	Fen, marsh and swamp	0.0354144	Favourable	60%
Purewell Meadows	Neutral grassland	0.0186439	Unfavourable	71%
Purewell Meadows	Neutral grassland	0.00828799	Favourable	71%
Purewell Meadows	Neutral grassland	0.00543146	Unfavourable	71%
Purewell Meadows	Neutral grassland	0.0778558	Unfavourable	71%
Purewell Meadows	Neutral grassland	0.0185435	Unfavourable	71%
Puxton Marshes	Fen, marsh and swamp	0.0526929	Unfavourable	61%
Puxton Marshes	Fen, marsh and swamp	0.0766276	Favourable	61%
Radipole Lake	Fen, marsh and swamp	0.112007	Unfavourable	66%
Radipole Lake	Fen, marsh and swamp	0.030848	Unfavourable	66%
Radipole Lake	Fen, marsh and swamp	0.260979	Favourable	66%
Radipole Lake	Fen, marsh and swamp	0.507169	Favourable	66%
Radipole Lake	Fen, marsh and swamp	0.0485053	Favourable	66%
Rake Hanger	Broadleaved, mixed and yew woodland	0.0595149	Unfavourable	43%
Rake Hanger	Broadleaved, mixed and yew woodland	0.222271	Unfavourable	43%
Rew Down	Calcareous grassland	0.0591799	Unfavourable	53%
Rew Down	Calcareous grassland	0.0572041	Favourable	53%
Rew Down	Calcareous grassland	0.0729582	Favourable	53%
Rew Down	Calcareous grassland	0.0472296	Favourable	53%
Richmond Park	Acid grassland	1.94861	Unfavourable	70%
Richmond Park	Acid grassland	0.572713	Favourable	70%
Richmond Park	Acid grassland	1.53184	Favourable	70%
Richmond Park	Broadleaved, mixed and yew woodland	0.225203	Favourable	70%
Richmond Park	Standing open water and canals	0.00419216	Unfavourable	70%
Richmond Park	Broadleaved, mixed and yew woodland	0.0582341	Favourable	70%
Richmond Park	Broadleaved, mixed and yew woodland	0.0303146	Favourable	70%
Richmond Park	Acid grassland	2.0512	Unfavourable	70%
Richmond Park	Broadleaved, mixed and yew woodland	0.0786466	Favourable	70%
Richmond Park	Standing open water and canals	0.103523	Favourable	70%
Richmond Park	Acid grassland	1.1467	Unfavourable	70%
Richmond Park	Broadleaved, mixed and yew woodland	0.0465623	Favourable	70%
Richmond Park	Broadleaved, mixed and yew woodland	0.187614	Favourable	70%
Richmond Park	Broadleaved, mixed and yew woodland	0.293364	Favourable	70%
Richmond Park	Broadleaved, mixed and yew woodland	0.187478	Favourable	70%
Riddlesdown	Calcareous grassland	0.0205385	Favourable	64%
Riddlesdown	Calcareous grassland	0.1288	Favourable	64%
Riddlesdown	Broadleaved, mixed and yew woodland	0.0116414	Favourable	64%
Riddlesdown	Broadleaved, mixed and yew woodland	0.0485501	Favourable	64%
Riddlesdown	Broadleaved, mixed and yew woodland	0.136866	Favourable	64%
Risley Moss	Bogs	0.508043	Favourable	41%
Risley Moss	Broadleaved, mixed and yew woodland	0.229896	Unfavourable	41%
Risley Moss	Broadleaved, mixed and yew woodland	0.100108	Unfavourable	41%
Rodborough Common	Calcareous grassland	0.020758	Unfavourable	60%
Rodborough Common	Calcareous grassland	0.0220678	Unfavourable	60%
Rodborough Common	Calcareous grassland	0.0538795	Unfavourable	60%
Rodborough Common	Calcareous grassland	0.620432	Unfavourable	60%
Rodborough Common	Calcareous grassland	0.00413199	Unfavourable	60%
Rodborough Common	Calcareous grassland	0.00651876	Unfavourable	60%
Rodborough Common	Calcareous grassland	0.009477	Unfavourable	60%

SSSI_Name	Habitat type of SSSI units	Area of SSSI unit (sq km)	Condition	Proportion of buffer in urban area
Rodborough Common	Calcareous grassland	0.00959864	Unfavourable	60%
Rodborough Common	Calcareous grassland	0.057634	Unfavourable	60%
Rodborough Common	Calcareous grassland	0.173463	Unfavourable	60%
Rodborough Common	Calcareous grassland	0.0422186	Favourable	60%
Rodborough Common	Calcareous grassland	0.0725656	Favourable	60%
Rodborough Common	Earth heritage	0.0025844	Unfavourable	60%
Roding Valley Meadows	Neutral grassland	0.0453488	Unfavourable	43%
Roding Valley Meadows	Neutral grassland	0.0570786	Unfavourable	43%
Roding Valley Meadows	Neutral grassland	0.0315566	Favourable	43%
Roding Valley Meadows	Neutral grassland	0.059445	Favourable	43%
Ron Ward's Meadow with Tadley Pastures	Neutral grassland	0.0953058	Favourable	43%
Ron Ward's Meadow with Tadley Pastures	Neutral grassland	0.0198549	Unfavourable	43%
Rough Hill & Wirehill Woods	Broadleaved, mixed and yew woodland	0.174402	Favourable	41%
Rough Hill & Wirehill Woods	Broadleaved, mixed and yew woodland	0.0949622	Favourable	41%
Rough Hill & Wirehill Woods	Broadleaved, mixed and yew woodland	0.0431829	Favourable	41%
Rough Hill & Wirehill Woods	Broadleaved, mixed and yew woodland	0.207732	Favourable	41%
Roughdown Common	Calcareous grassland	0.0371041	Favourable	71%
Ruxley Gravel Pits	Standing open water and canals	0.187296	Unfavourable	56%
Sandhurst to Owlsmoor Bogs & Heaths	Dwarf shrub heath	0.341524	Favourable	64%
Sandhurst to Owlsmoor Bogs & Heaths	Dwarf shrub heath	0.234353	Favourable	64%
Sandhurst to Owlsmoor Bogs & Heaths	Dwarf shrub heath	0.282201	Favourable	64%
Sawston Hall Meadows	Neutral grassland	0.0733047	Unfavourable	48%
Sevenoaks Gravel Pits	Inland rock	0.737013	Favourable	65%
Sheringham & Beeston Regis Commons	Fen, marsh and swamp	0.200226	Favourable	75%
Sheringham & Beeston Regis Commons	Fen, marsh and swamp	0.0491662	Favourable	75%
Sherrardspark Wood	Broadleaved, mixed and yew woodland	0.162837	Unfavourable	58%
Sherrardspark Wood	Broadleaved, mixed and yew woodland	0.39235	Favourable	58%
Sherrardspark Wood	Broadleaved, mixed and yew woodland	0.188835	Favourable	58%
Shibdon Pond	Standing open water and canals	0.120655	Favourable	61%
Showground Meadow, Callow Hill	Neutral grassland	0.00826246	Favourable	53%
Slop Bog & Uddens Heath	Dwarf shrub heath	0.00687463	Unfavourable	48%
Slop Bog & Uddens Heath	Dwarf shrub heath	0.0075388	Unfavourable	48%
Slop Bog & Uddens Heath	Dwarf shrub heath	0.00307546	Unfavourable	48%
Slop Bog & Uddens Heath	Dwarf shrub heath	0.00856937	Unfavourable	48%
Slop Bog & Uddens Heath	Built up areas and gardens	0.00584926	Unfavourable	48%
Slop Bog & Uddens Heath	Built up areas and gardens	0.021979	Unfavourable	48%
Slop Bog & Uddens Heath	Built up areas and gardens	0.0227306	Unfavourable	48%
Slop Bog & Uddens Heath	Dwarf shrub heath	0.0105593	Unfavourable	48%
Slop Bog & Uddens Heath	Dwarf shrub heath	0.0157772	Unfavourable	48%
Slop Bog & Uddens Heath	Dwarf shrub heath	0.0105526	Unfavourable	48%
Slop Bog & Uddens Heath	Dwarf shrub heath	0.0319049	Unfavourable	48%
Slop Bog & Uddens Heath	Dwarf shrub heath	0.219572	Unfavourable	48%
Slop Bog & Uddens Heath	Dwarf shrub heath	0.0741635	Unfavourable	48%
South Hylton Pasture	Neutral grassland	0.0290193	Favourable	99%
Southampton Common	Broadleaved, mixed and yew woodland	0.882979	Favourable	96%
Southampton Common	Standing open water and canals	0.000183386	Favourable	96%
Southampton Common	Standing open water and canals	0.000441557	Favourable	96%
Southampton Common	Standing open water and canals	0.00126813	Favourable	96%
Southampton Common	Standing open water and canals	0.00489709	Favourable	96%
Southampton Common	Standing open water and canals	0.0129896	Favourable	96%
St Lawrence Bank	Neutral grassland	0.00144945	Favourable	59%
St Neots Common	Broadleaved, mixed and yew woodland	0.0571085	Favourable	49%
St Neots Common	Neutral grassland	0.123007	Unfavourable	49%
St Neots Common	Neutral grassland	0.153405	Unfavourable	49%
Staines Moor	Neutral grassland	0.956168	Favourable	47%
Staines Moor	Standing open water and canals	1.95968	Favourable	47%
Staines Moor	Neutral grassland	0.141026	Favourable	47%
Staines Moor	Standing open water and canals	0.0247429	Unfavourable	47%

SSSI_Name	Habitat type of SSSI units	Area of SSSI unit (sq km)	Condition	Proportion of buffer in urban area
Staines Moor	Neutral grassland	0.0366061	Favourable	47%
Staines Moor	Neutral grassland	0.0584724	Favourable	47%
Staines Moor	Neutral grassland	0.0873908	Favourable	47%
Staines Moor	Neutral grassland	0.0842616	Unfavourable	47%
Staines Moor	Standing open water and canals	0.00843391	Unfavourable	47%
Staines Moor	Standing open water and canals	1.75142	Favourable	47%
Stanley Bank Meadow	Neutral grassland	0.144968	Unfavourable	66%
Stockbridge Fen	Fen, marsh and swamp	0.0596764	Favourable	50%
Stones Road Pond	Standing open water and canals	0.00472996	Favourable	100%
Stowe Pool and Walk Mill Clay Pit	Standing open water and canals	0.0315668	Unfavourable	69%
Stowe Pool and Walk Mill Clay Pit	Standing open water and canals	0.0596509	Unfavourable	69%
Stowell Meadow	Bogs	0.0290998	Favourable	50%
Stubbers Green Bog	Fen, marsh and swamp	0.0278001	Unfavourable	57%
Sullington Warren	Dwarf shrub heath	0.247128	Favourable	60%
Surfleet Lows	Neutral grassland	0.0343768	Favourable	42%
Sutton Park	Dwarf shrub heath	2.17843	Favourable	94%
Sutton Park	Standing open water and canals	0.00840146	Unfavourable	94%
Sutton Park	Standing open water and canals	0.0517326	Unfavourable	94%
Sutton Park	Dwarf shrub heath	1.94206	Favourable	94%
Sutton Park	Standing open water and canals	0.0411183	Unfavourable	94%
Sutton Park	Broadleaved, mixed and yew woodland	0.219741	Favourable	94%
Sutton Park	Standing open water and canals	0.11372	Unfavourable	94%
Sutton Park	Broadleaved, mixed and yew woodland	0.692999	Favourable	94%
Sutton Park	Broadleaved, mixed and yew woodland	0.0745751	Favourable	94%
Sutton Park	Broadleaved, mixed and yew woodland	0.143884	Favourable	94%
Sutton Park	Dwarf shrub heath	0.919012	Favourable	94%
Sutton Park	Broadleaved, mixed and yew woodland	0.0300786	Favourable	94%
Sutton Park	Broadleaved, mixed and yew woodland	0.0705801	Favourable	94%
Sutton Park	Broadleaved, mixed and yew woodland	0.612023	Favourable	94%
Sutton Park	Broadleaved, mixed and yew woodland	0.480903	Favourable	94%
Sutton Park	Dwarf shrub heath	0.863387	Favourable	94%
Sutton Park	Broadleaved, mixed and yew woodland	0.238102	Favourable	94%
Sutton Park	Standing open water and canals	0.0258031	Unfavourable	94%
Sutton Park	Standing open water and canals	0.067269	Unfavourable	94%
Swan Pool & The Swag	Fen, marsh and swamp	0.018982	Unfavourable	53%
Swan Pool & The Swag	Fen, marsh and swamp	0.0414855	Favourable	53%
Swanholme Lakes	Standing open water and canals	0.0755221	Unfavourable	75%
Swanholme Lakes	Standing open water and canals	0.00381848	Unfavourable	75%
Swanholme Lakes	Standing open water and canals	0.030242	Unfavourable	75%
Swanholme Lakes	Standing open water and canals	0.303215	Unfavourable	75%
Swanholme Lakes	Dwarf shrub heath	0.002665	Favourable	75%
Swanholme Lakes	Dwarf shrub heath	0.00857063	Favourable	75%
Swanholme Lakes	Dwarf shrub heath	0.0982222	Favourable	75%
Swanpool	Standing open water and canals	0.0904937	Favourable	55%
Sweetbriar Road Meadows, Norwich	Neutral grassland	0.0974025	Unfavourable	49%
Sylvia's Meadow	Neutral grassland	0.0459275	Favourable	64%
Tankerton Slopes	Neutral grassland	0.023028	Favourable	56%
The Carrs	Calcareous grassland	0.0195529	Favourable	41%
The Carrs	Fen, marsh and swamp	0.116741	Favourable	41%
The Glen Chalk Caves, Bury St Edmunds	Inland rock	0.0162432	Favourable	66%
The Moors, Bishop's Waltham	Broadleaved, mixed and yew woodland	0.0191453	Favourable	42%
The Moors, Bishop's Waltham	Built up areas and gardens	0.00408487	Unfavourable	42%
The Moors, Bishop's Waltham	Broadleaved, mixed and yew woodland	0.145801	Favourable	42%
The Moors, Bishop's Waltham	Neutral grassland	0.0176251	Unfavourable	42%
The Moors, Bishop's Waltham	Fen, marsh and swamp	0.0932414	Unfavourable	42%
The Wild Grounds	Broadleaved, mixed and yew woodland	0.281587	Favourable	46%
Thriplow Meadows	Neutral grassland	0.0345615	Unfavourable	49%
Thundersley Great Common	Dwarf shrub heath	0.0510826	Unfavourable	85%

SSSI_Name	Habitat type of SSSI units	Area of SSSI unit (sq km)	Condition	Proportion of buffer in urban area
Thundersley Great Common	Dwarf shrub heath	0.0394584	Unfavourable	85%
Tidcombe Lane Fen	Fen, marsh and swamp	0.0189061	Favourable	51%
Tidcombe Lane Fen	Fen, marsh and swamp	0.0128124	Favourable	51%
Tidcombe Lane Fen	Fen, marsh and swamp	0.0379681	Favourable	51%
Tilehill Wood	Broadleaved, mixed and yew woodland	0.296685	Favourable	75%
Toddbrook Reservoir	Standing open water and canals	0.194205	Favourable	41%
Townclose Hills	Neutral grassland	0.00200703	Favourable	46%
Townclose Hills	Neutral grassland	0.00022906	Favourable	46%
Townclose Hills	Neutral grassland	0.0766842	Favourable	46%
Townclose Hills	Broadleaved, mixed and yew woodland	0.0033868	Unfavourable	46%
Townclose Hills	Broadleaved, mixed and yew woodland	0.0392969	Unfavourable	46%
Townclose Hills	Neutral grassland	0.00382326	Favourable	46%
Townsend	Calcareous grassland	0.124387	Favourable	57%
Townsend	Inland rock	8.79537E-05	Favourable	57%
Townsend	Inland rock	0.000149732	Favourable	57%
Townsend	Inland rock	0.000251	Favourable	57%
Townsend	Inland rock	0.000321183	Favourable	57%
Townsend	Calcareous grassland	0.0109033	Favourable	57%
Tudor Farm Bank	Calcareous grassland	0.0367063	Favourable	57%
Tunstall Hills & Ryhope Cutting	Calcareous grassland	0.00308515	Favourable	60%
Tunstall Hills & Ryhope Cutting	Calcareous grassland	0.0183333	Favourable	60%
Tunstall Hills & Ryhope Cutting	Calcareous grassland	0.0331504	Favourable	60%
Tunstall Hills & Ryhope Cutting	Calcareous grassland	0.101602	Favourable	60%
Turbary & Kinson Commons	Dwarf shrub heath	0.026314	Unfavourable	97%
Turbary & Kinson Commons	Dwarf shrub heath	0.164068	Favourable	97%
Turbary & Kinson Commons	Dwarf shrub heath	0.0642224	Favourable	97%
Turbary & Kinson Commons	Dwarf shrub heath	0.106929	Favourable	97%
Upton Heath	Standing open water and canals	0.00174896	Favourable	55%
Upton Heath	Fen, marsh and swamp	0.00522527	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.0234904	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.0223106	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.00760683	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.0261182	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.0481193	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.0102174	Unfavourable	55%
Upton Heath	Fen, marsh and swamp	0.0208802	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.0187092	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.0715484	Favourable	55%
Upton Heath	Dwarf shrub heath	0.0513096	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.00474091	Favourable	55%
Upton Heath	Dwarf shrub heath	0.13228	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.0408981	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.38034	Favourable	55%
Upton Heath	Dwarf shrub heath	0.0350965	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.566147	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.00531652	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.0268448	Favourable	55%
Upton Heath	Dwarf shrub heath	0.0678183	Favourable	55%
Upton Heath	Dwarf shrub heath	0.01499	Favourable	55%
Upton Heath	Dwarf shrub heath	0.0152878	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.246744	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.0589633	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.0468968	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.0517057	Unfavourable	55%
Upton Heath	Dwarf shrub heath	0.18757	Unfavourable	55%
Verwood Heaths	Dwarf shrub heath	0.0423234	Favourable	48%
Verwood Heaths	Dwarf shrub heath	0.0190792	Unfavourable	48%
Verwood Heaths	Dwarf shrub heath	0.106918	Unfavourable	48%

SSSI_Name	Habitat type of SSSI units	Area of SSSI unit (sq km)	Condition	Proportion of buffer in urban area
Verwood Heaths	Dwarf shrub heath	0.00467066	Unfavourable	48%
Verwood Heaths	Dwarf shrub heath	0.0119209	Unfavourable	48%
Verwood Heaths	Dwarf shrub heath	0.0119335	Unfavourable	48%
Verwood Heaths	Dwarf shrub heath	0.0366571	Unfavourable	48%
Verwood Heaths	Dwarf shrub heath	0.0444183	Unfavourable	48%
Waltham Chase Meadows	Neutral grassland	0.0635872	Favourable	61%
Walthamstow Marshes	Fen, marsh and swamp	0.0118702	Favourable	92%
Walthamstow Marshes	Rivers and streams	0.00699482	Favourable	92%
Walthamstow Marshes	Neutral grassland	0.0899731	Favourable	92%
Walthamstow Marshes	Fen, marsh and swamp	0.0977521	Favourable	92%
Walthamstow Marshes	Standing open water and canals	0.0343804	Favourable	92%
Walthamstow Marshes	Standing open water and canals	0.105889	Favourable	92%
Walthamstow Marshes	Broadleaved, mixed and yew woodland	0.0283697	Favourable	92%
Walthamstow Reservoirs	Standing open water and canals	0.193678	Favourable	98%
Walthamstow Reservoirs	Standing open water and canals	0.266434	Favourable	98%
Walthamstow Reservoirs	Standing open water and canals	0.127753	Favourable	98%
Walthamstow Reservoirs	Standing open water and canals	0.21357	Favourable	98%
Walthamstow Reservoirs	Standing open water and canals	0.200099	Favourable	98%
Walthamstow Reservoirs	Standing open water and canals	0.0578404	Favourable	98%
Walthamstow Reservoirs	Standing open water and canals	0.415564	Favourable	98%
Walthamstow Reservoirs	Standing open water and canals	0.0972819	Favourable	98%
Walthamstow Reservoirs	Standing open water and canals	0.0749983	Favourable	98%
Walthamstow Reservoirs	Standing open water and canals	0.147906	Favourable	98%
Wansford Pasture	Calcareous grassland	0.0311201	Unfavourable	48%
Wareham Meadows	Fen, marsh and swamp	0.0160981	Favourable	41%
Wareham Meadows	Fen, marsh and swamp	0.156124	Favourable	41%
Wareham Meadows	Neutral grassland	0.00743695	Unfavourable	41%
Wareham Meadows	Rivers and streams	0.103436	Favourable	41%
Wareham Meadows	Neutral grassland	0.30245	Unfavourable	41%
Wareham Meadows	Neutral grassland	0.288017	Favourable	41%
Wareham Meadows	Dwarf shrub heath	0.066757	Unfavourable	41%
Wareham Meadows	Rivers and streams	0.0244096	Favourable	41%
Wareham Meadows	Fen, marsh and swamp	0.00786877	Favourable	41%
Wareham Meadows	Neutral grassland	0.0202636	Unfavourable	41%
Wareham Meadows	Neutral grassland	0.010204	Unfavourable	41%
Wareham Meadows	Neutral grassland	0.128793	Unfavourable	41%
Wareham Meadows	Neutral grassland	0.280085	Favourable	41%
Wareham Meadows	Neutral grassland	0.06159	Unfavourable	41%
Wareham Meadows	Fen, marsh and swamp	0.0153862	Favourable	41%
Wareham Meadows	Neutral grassland	0.129421	Unfavourable	41%
Wareham Meadows	Neutral grassland	0.00695522	Favourable	41%
Wareham Meadows	Neutral grassland	0.272081	Unfavourable	41%
Wareham Meadows	Neutral grassland	0.0329571	Favourable	41%
Wareham Meadows	Neutral grassland	0.0622019	Unfavourable	41%
Wareham Meadows	Fen, marsh and swamp	0.0133154	Unfavourable	41%
Wareham Meadows	Neutral grassland	0.0203263	Unfavourable	41%
Wareham Meadows	Fen, marsh and swamp	0.0219581	Favourable	41%
Wareham Meadows	Fen, marsh and swamp	0.0607506	Unfavourable	41%
Warnborough Green	Neutral grassland	0.0177609	Favourable	41%
Warnborough Green	Neutral grassland	0.0258297	Favourable	41%
Wart Barrow	Calcareous grassland	0.0354812	Unfavourable	64%
Wart Barrow	Calcareous grassland	0.0633398	Unfavourable	64%
Wart Barrow	Calcareous grassland	0.0099094	Unfavourable	64%
Wart Barrow	Calcareous grassland	0.150615	Unfavourable	64%
Wellington College Bog	Dwarf shrub heath	0.0623559	Favourable	42%
West's Meadow, Aldermaston	Neutral grassland	0.011906	Favourable	41%
Wilden Marsh & Meadows	Fen, marsh and swamp	0.0629792	Unfavourable	48%
Wilden Marsh & Meadows	Neutral grassland	0.0395766	Unfavourable	48%

SSSI_Name	Habitat type of SSSI units	Area of SSSI unit (sq km)	Condition	Proportion of buffer in urban area
Wilden Marsh & Meadows	Neutral grassland	0.0233084	Unfavourable	48%
Wilden Marsh & Meadows	Broadleaved, mixed and yew woodland	0.0742434	Unfavourable	48%
Wilden Marsh & Meadows	Neutral grassland	0.0258593	Unfavourable	48%
Wilden Marsh & Meadows	Broadleaved, mixed and yew woodland	0.053046	Favourable	48%
Wilden Marsh & Meadows	Fen, marsh and swamp	0.126011	Favourable	48%
Wilford Claypits	Fen, marsh and swamp	0.000762529	Favourable	92%
Wilford Claypits	Neutral grassland	0.00678034	Favourable	92%
Wilford Claypits	Calcareous grassland	0.0141801	Favourable	92%
Wimbleton Common	Dwarf shrub heath	0.176173	Unfavourable	76%
Wimbleton Common	Dwarf shrub heath	0.0488389	Unfavourable	76%
Wimbleton Common	Broadleaved, mixed and yew woodland	0.95395	Favourable	76%
Wimbleton Common	Broadleaved, mixed and yew woodland	0.440725	Favourable	76%
Wimbleton Common	Standing open water and canals	0.00759678	Unfavourable	76%
Wimbleton Common	Standing open water and canals	0.00768753	Unfavourable	76%
Wimbleton Common	Standing open water and canals	0.0106831	Unfavourable	76%
Wimbleton Common	Standing open water and canals	0.012865	Unfavourable	76%
Wimbleton Common	Acid grassland	1.27472	Unfavourable	76%
Wimbleton Common	Dwarf shrub heath	0.580587	Unfavourable	76%
Wraysbury No. 1 Gravel Pit	Standing open water and canals	0.577238	Favourable	43%
Wykery Copse	Broadleaved, mixed and yew woodland	0.0319541	Favourable	52%

Appendix II. SSSI units summary table showing habitat type and condition

Habitat type	Number of SSSI units			Condition by SSSI units	
	Favourable condition	Unfavourable condition	Total	Favourable	Unfavourable
Acid grassland	8	9	17	47%	53%
Bogs	3	0	3	100%	0%
Boundary and linear features	2	0	2	100%	0%
Broadleaved, mixed and yew woodland	131	62	193	68%	32%
Built up areas and gardens	6	8	14	43%	57%
Calcareous grassland	49	31	80	60%	38%
Dwarf shrub heath	82	115	197	42%	58%
Fen, marsh and swamp	45	29	74	61%	39%
Improved grassland	2	0	2	100%	0%
Inland rock	18	2	20	90%	10%
Neutral grassland	102	69	171	60%	40%
Rivers and streams	4	0	4	100%	0%
Standing open water and canals	62	39	101	61%	39%
Total	514	364	878	59%	41%

SSSI area summary table showing habitat type and condition

Habitat type	Area (sq km)			Condition by area	
	Favourable condition	Unfavourable condition	Total	Favourable	Unfavourable
Acid grassland	2.39	6.75	9.13	26%	74%
Bogs	0.65	0.00	0.65	100%	0%
Boundary and linear features	0.00	0.00	0.00	100%	0%
Broadleaved, mixed and yew woodland	28.54	12.34	40.88	70%	30%
Built up areas and gardens	0.03	0.09	0.12	22%	78%
Calcareous grassland	5.74	2.54	8.30	69%	31%
Dwarf shrub heath	16.85	19.58	36.43	46%	54%
Fen, marsh and swamp	3.52	1.21	4.73	74%	26%
Improved grassland	0.07	0.00	0.07	100%	0%
Inland rock	1.22	0.00	1.22	100%	0%
Neutral grassland	6.62	5.07	11.69	57%	43%
Rivers and streams	0.14	0.00	0.14	100%	0%
Standing open water and canals	12.67	2.51	15.17	83%	17%
Total	78.43	50.08	128.54	61%	39%

Appendix III. Local authorities classified as ‘urban’ and ‘suburban’

Urban Local Authorities

Chesterfield Borough Council
Derby City Council
Erewash Borough Council
Leicester City Council
Oadby and Wigston Borough Council
Lincoln City Council
Corby Borough Council
Ashfield District Council
Broxtowe Borough Council
Gedling Borough Council
Mansfield District Council
Nottingham City Council
Bedford Borough Council
Luton Borough Council
Cambridge City Council
Peterborough City Council
Basildon District Council
Brentwood Borough Council
Castle Point Borough Council
Chelmsford Borough Council
Harlow District Council
Southend-On-Sea Borough Council
Thurrock Council
Broxbourne Borough Council
Hertsmere Borough Council
St Albans District Council
Stevenage Borough Council
Three Rivers District Council
Watford Borough Council
Norwich City Council
Ipswich Borough Council
Greater London Authority
Barking and Dagenham London Borough Council
Barnet London Borough Council
Bexley London Borough Council
Brent London Borough Council
Bromley London Borough Council
Camden London Borough Council
Corporation of London
Croydon London Borough Council
Ealing London Borough Council
Enfield London Borough Council
Greenwich London Borough Council
Hackney London Borough Council
Hammersmith and Fulham London Borough Council
Haringey London Borough Council
Harrow London Borough Council
Havering London Borough Council
Hillingdon London Borough Council

Hounslow London Borough Council
Islington London Borough Council
Kensington and Chelsea Royal Borough Council
Royal Borough Council of Kingston Upon Thames
Lambeth London Borough Council
Lewisham London Borough Council
Merton London Borough Council
Newham London Borough Council
Redbridge London Borough Council
Richmond upon Thames London Borough Council
Southwark London Borough Council
Sutton London Borough Council
Tower Hamlets London Borough Council
Waltham Forest London Borough Council
Wandsworth London Borough Council
Westminster City Council
Chester-le Street District Council
Darlington Borough Council
Durham City Council
Durham County Council
Hartepool Borough Council
Sedgefield Borough Council
Stockton on Tees Borough Council
Blyth Valley Borough Council
Wansbeck District Council
Gateshead Metropolitan Borough Council
Newcastle upon Tyne City Council
North Tyneside Metropolitan Borough Council
South Tyneside Metropolitan Borough Council
Sunderland City Council
Middlesborough Borough Council
Chester City Council
Ellesmere Port and Neston Borough Council
Halton Borough Council
Warrington Borough Council
Carlisle City Council
Bolton Metropolitan Borough Council
Bury Metropolitan Borough Council
Manchester City Council
Oldham Metropolitan Borough Council
Rochdale Metropolitan Borough Council
Salford City Council
Stockport Metropolitan Borough Council
Tameside Metropolitan Borough Council
Trafford Metropolitan Borough Council
Wigan Metropolitan Borough Council
Blackburn and Darwen Borough Council
Blackpool Borough Council
Burnley Borough Council
Chorley Borough Council
Hyndburn Borough Council

Lancaster City Council
Preston City Council
South Ribble Borough Council
Knowlsey Metropolitan Borough Council
Liverpool City Council
St Helens Metropolitan Borough Council
Wirral Metropolitan Borough Council
Bracknell Forest Borough Council
Reading Borough Council
Slough Borough Council
Eastbourne Borough Council
Hastings Borough Council
Eastleigh Borough Council
Fareham Borough Council
Gosport Borough Council
Havant Borough Council
Portsmouth City Council
Rushmoor Borough Council
Southampton City Council
Winchester City Council
Canterbury City Council
Dartford Borough Council
Thanet District Council
Oxford City Council
Elmbridge Borough Council
Epsom and Ewell Borough Council
Guildford Borough Council
Runnymede Borough Council
Spelthorne Borough Council
Woking Borough Council
Crawley Borough Council
Worthing Borough Council
Bristol City Council
Exeter City Council
Plymouth City Council
Bournemouth Borough Council
Borough of Poole
Weymouth and Portland Borough Council
Cheltenham Borough Council
Gloucester City Council

Bath and North East Somerset Council
Cannock Chase District Council
Lichfield City Council
Stoke-On-Trent City Council
Tamworth Borough Council
Nuneaton and Bedworth Borough Council
Birmingham City Council
Coventry City Council
Dudley Metropolitan Borough Council
Sandwell Metropolitan Borough Council
Solihull Metropolitan Borough Council
Walsall Metropolitan Borough Council
Wolverhampton City Council
Bromsgrove District Council
Redditch Borough Council
Worcester City Council
Wyre Forest District Council
Kingston Upon Hull City Council
York City Council
Barnsley Metropolitan Borough Council
Doncaster Metropolitan Borough Council
Sheffield City Council
Bradford Metropolitan Borough Council
Leeds City Council
Wakefield Metropolitan District Council

Suburban Local Authorities

Blaby District Council
Boston Borough Council
Kettering Borough Council
Wellingborough Borough Council
Sedgefield Borough Council
Milton Keynes Borough Council
South Buckinghamshire District Council
Surrey Heath Borough Council
Adur District Council
Torbay Borough Council
Christchurch Borough Council
Kirklees Metropolitan Borough Council



English Nature is the Government agency that champions the conservation of wildlife and geology throughout England.

This is one of a range of publications published by:
External Relations Team
English Nature
Northminster House
Peterborough PE1 1UA

www.english-nature.org.uk

© English Nature 2002/3

Cover printed on Character Express, post consumer waste paper, ECF.

ISSN 0967-876X

Cover designed and printed by Status Design & Advertising, 2M, 2M.

You may reproduce as many copies of this report as you like, provided such copies stipulate that copyright remains with English Nature, Northminster House, Peterborough PE1 1UA

If this report contains any Ordnance Survey material, then you are responsible for ensuring you have a license from Ordnance Survey to cover such reproduction.

Front cover photographs:

Top left: Radio tracking a hare on Pawlett Hams, Somerset.

Paul Glendell/English Nature 23,020

Middle left: Identifying moths caught in a moth trap at Ham Wall NNR, Somerset.

Paul Glendell/English Nature 24,888

Bottom left: Using a home-made moth trap.

Peter Wakely/English Nature 17,396

Main: Co₂ experiment at Roudsea Wood and Mosses NNR, Lancashire.

Peter Wakely/English Nature 21,792



Awarded for excellence