‘Work for Wildlife’

The London Borough of Southwark: Biodiversity Action Plan

April 2006-2010

Environment & Leisure
Parks & Sports
186 Walworth Road

Contents

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Foreword

Foreword by Lead Member for Environment. Lisa Rajan

In the countryside, many people expect to see a rich diversity of plant and animal species. The same is not always true of inner city boroughs like Southwark. There is, however, a vast array of flora and fauna within our urban environment, and this needs to be celebrated and protected. The wildlife in our gardens, parks and other green spaces is as much a feature of city living as the nature found in fields and hedgerows is for rural communities.

Southwark has a wealth of green and open areas, including docks, canals, meadows, parks and woodlands that are home to many wild animals and provide shelter, food and places to breed for wildlife as diverse as foxes, bats and butterflies. As well as providing ecologically balanced habitats for these creatures, these places are also a popular escape from the noise and bustle of modern city living for many of us.

Southwark has a long history of innovative ecological projects which have provided the borough with a lasting legacy of quality green space. These include Russia Dock Woodland, The Centre for Wildlife Gardening, Sydenham Hill Wood, Stave Hill Ecological Park and Kirkwood Nature Garden.

The Council, as a major landowner in Southwark, has a responsibility to protect our borough's natural heritage for future generations. Fulfilling this responsibility for our environment and the multitude of species it sustains is only possible when we understand the complex web of interactions between the species at play. This Biodiversity Action Plan aims to provide a comprehensive overview of the biodiversity in Southwark and a clear direction in ensuring it is conserved, managed and enhanced. By giving due prominence to this important part of our environment in Southwark, we aim to safeguard the ecological future of the wildlife of our borough. Producing a plan for biodiversity in Southwark is an important milestone highlighting our commitment to the responsible management of Southwark's many natural resources. We look forward to working with our partners to implement this plan.

Executive Summary

The Southwark Biodiversity Action Plan - *Work for Wildlife* - outlines how Southwark Council will work with its partners to conserve, enhance and promote biodiversity in the London Borough of Southwark for the benefit of residents, visitors and future generations. *Work for Wildlife* is designed to be a valuable toolkit that provides a unified strategic framework for managing the Borough's natural resources.

Work for Wildlife explains why Southwark needs a Biodiversity Action Plan; what difference the Plan will make and how it will be delivered. It also lists some of the key actions and initiatives that will be undertaken during the life of the Plan (2006-2010).

The starting point for Southwark's Biodiversity Action Plan – *Working for Wildlife* – was the 1992 'Earth Summit' in Rio de Janeiro, where the UK signed up to the environmental action plan known as 'Local Agenda 21'. The UK Government subsequently produced the UK Biodiversity Action Plan and recommended that every local area should develop its own plan.

Since 1999, the statutory duty to protect biodiversity in London has rested with the Greater London Authority (GLA). Subsequently, all 33 London Boroughs have produced or are producing Local Biodiversity Action Plans.

A decade after the 1992 'Earth Summit', the World's leaders met again in Johannesburg and agreed to achieve 'a significant reduction of the current rate of biodiversity loss at global, regional and national levels' by 2010. Within this context, *Work for Wildlife* will help the UK to deliver on that commitment at a local level.

Southwark's Biodiversity Action Plan is also informed by the Wildlife and Countryside Act 1981, which forms the backbone of nature conservation legislation. In addition, the Countryside Rights of Way Act 2000, the Local Government Act 2000 and the upcoming Natural Environment and Rural Communities (NERC) Bill also shape the Borough's work in this area.

The global context of the environmental agenda means that Southwark's Biodiversity Action Plan – *Work for Wildlife* – will make a positive impact that reaches beyond borough boundaries. However, the primary focus of *Work for Wildlife* is to conserve, enhance and protect biodiversity within Southwark.

Work for Wildlife is a borough-wide plan, and as such includes all parks, public spaces, housing land, school grounds and sports fields. It also includes the Thames in Southwark, ponds and lakes, the built environment, highways and rail-sides.

Every resident is affected by loss of biological diversity at some level. Therefore, it follows that all residents stand to benefit from the implementation of this Action Plan which aims to meet the following objectives:

- Conserving and enhancing existing natural habitats within Southwark
- Conserving and enhancing existing species within Southwark
- Increasing grassland, wetland and woodland habitat resources in Southwark
- Tackling ecological threats
- Increasing public awareness of ecology
- Engaging communities in *Work for Wildlife*
- Engaging children and young people in *Work for Wildlife*
- Engaging key stakeholders in *Work for Wildlife*
- Developing an ecological monitoring strategy
- Establishing habitat and species working groups
- Promoting national and regional priority habitats and species relevant to Southwark

In line with the theme of Southwark 2016, *Work for Wildlife* will also bring additional benefits to both residents and the environment by:

- Improving the management of natural assets
- Promoting community cohesion
- Improving health
- Providing education opportunities
- Greening the physical environment
- Making the Council a 'greener' organisation

Work for Wildlife has been developed through the Southwark Biodiversity Partnership. The Partnership meets quarterly and sets out the strategic aims of The Plan. It also selects the habitats and species included in the Biodiversity Action Plan now and in the future.

The delivery of Southwark's Biodiversity Action Plan is as multi-tiered mechanism that will involve the strategic deployment of Working Groups, Actions Plans and partnership initiatives.

Work for Wildlife will depend on the development of a series of Working Groups for specific species and habitats. These Working Groups will be responsible for delivering three Habitat Action Plans (Parks and Open Spaces, Woodland, Private Gardens) and three Species Action Plans (Bats, Stag Beetles, Corky-Fruited Water Dropwort). Further Working Groups and Action Plans focusing on additional habitats and species will be introduced in 2007 and 2008.

Work for Wildlife also identifies a range of Generic Actions for conserving, enhancing and promoting biodiversity in Southwark. These are overarching biodiversity actions that will be delivered by all parties in the Southwark Biodiversity Partnership including the Working Groups for habitats and species.

The Generic Actions focus on the following key priorities of the Council:

- Health
- Education
- Community Safety
- Making the Borough Cleaner and Greener
- Local Economy

Work for Wildlife places a new focus on biodiversity that will promote a greater emphasis on ecological issues in Council policy and strategy. It also encourages a co-operative approach to protecting the Borough's resources through the Southwark Biodiversity Partnership and existing local initiatives.

As the world's biodiversity is either lost or conserved locally, it is clear that local actions can have a significant global impact. All residents are affected by the loss of the world's biological diversity and so stand to benefit from the many actions to conserve, enhance and promote biodiversity that have been set out in *Work for Wildlife.*

SECTION ONE: GLOBAL PROBLEMS: LOCAL SOLUTIONS

WHY DOES SOUTHWARK NEED A BIODIVERSITY ACTION PLAN?

1. About this document

The Southwark Biodiversity Action Plan - *Work for Wildlife* - outlines how Southwark Council will work with its partners to conserve, enhance and promote biodiversity in the London Borough of Southwark. *Work for Wildlife* is designed to be a valuable toolkit that provides a unified strategic framework for managing the Borough's natural resources.

For ease of reading, this document is divided into four sections:

- SECTION ONE: GLOBAL PROBLEMS: LOCAL SOLUTIONS
- SECTION TWO: IMPROVING SOUTHWARK'S ENVIRONMENT
- SECTION THREE: WORKING FOR WILDLIFE IN SOUTHWARK
- SECTION FOUR: BIODIVERSITY IN ACTION

SECTION ONE: GLOBAL PROBLEMS: LOCAL SOLUTIONS explains why Southwark needs a Biodiversity Action Plan. It also provides an introductory overview for this document and outlines the international, national and regional context of the Plan.

SECTION TWO: IMPROVING SOUTHWARK'S ENVIRONMENT explains what difference Southwark's Biodiversity Action Plan – *Work for Wildlife* – will make to the Borough and what it will set out to achieve.

SECTION THREE: WORKING FOR WILDLIFE IN SOUTHWARK describes the key steps that will be taken to ensure that Southwark's Biodiversity Action Plan – *Work for Wildlife* – is delivered successfully.

SECTION FOUR: BIODIVERSITY IN ACTION provides a detailed list of actions that will be carried out to deliver Southwark's Biodiversity Action Plan, *Work for Wildlife*.

In addition to these four sections, a series of appendices providing further background information on the following areas are attached to this document:

- Appendix 1: Southwark Biodiversity Partnership Terms of Reference
- Appendix 2: Factors affecting habitats and species
- Appendix 3: Habitats, LNRs and Sites of Importance for Nature Conservation in Southwark
- Appendix 4: Ecological Issues
- Appendix 5: London Bat Audit

1.1 Introduction

For a densely-populated Inner London borough, Southwark's natural environment is surprisingly diverse. From the banks of the Thames in the north of the borough to the ancient woodland of Sydenham Hill in the south, the Borough offers a wide choice of habitats for a variety of plant and animal species.

On a local level, this biological diversity can enhance the life quality of anyone who lives in, works in or visits the Borough. On a global scale, biodiversity underpins human well-being

through the provision of vital services such as food, clothing, medicines, fresh water and clean air.

As the world's biodiversity is either lost or conserved locally, it is clear that local actions can have a significant global impact. All residents are affected by the loss of the world's biological diversity and so stand to benefit from any steps taken locally to tackle the issue.

Southwark's Biodiversity Action Plan – *Work for Wildlife* – outlines how Southwark Council will work together with its partners to conserve, enhance and promote the Borough's wildlife for the benefit of residents, visitors and future generations.

Work for Wildlife will be an essential tool for individuals and organisations that may lack direct wildlife knowledge but want easily-accessible guidance on actions to protect the Borough's natural resources. It will also provide officers, members, residents and other key stakeholders with information and guidance on managing biodiversity in Southwark.

1.2 What is biodiversity?

Biodiversity is the variety of all living things on Earth, from micro-organisms to mammals. It includes all fungi, plants, animals, the genetic information they contain, the ecosystems they form and the habitats in which they live.

In Southwark we refer to biodiversity as 'wildlife': this includes mammals, plants, lichens and fungi. The places where wildlife lives, such as woods, rivers, lakes, parks and buildings, are what we refer to as 'habitats'. The quantity of biodiversity is referred to as 'Biomass'.

Biodiversity is all around us and provides the Earth with its life-support systems, from its forests and flowers to its coral reefs and waterways. Human action is placing an increasing strain on these support systems to the point where the ability of the Planet's ecosystems to sustain future generations can no longer be taken for granted.

Work for Wildlife outlines how Southwark Council can work with its partners to tackle biodiversity loss both locally and globally. It ranges in scope from promoting local habitats for Stag Beetles to reducing the Borough's usage of global resources such as peat and hardwood.

1.3 The Background to Biodiversity Action Plans

The starting point for Southwark's Biodiversity Action Plan – *Work for Wildlife* – was the 1992 'Earth Summit' in Rio de Janeiro, where the UK signed up to the environmental action plan known as 'Local Agenda 21' (LA21).

In 1994, the UK Government produced the UK Biodiversity Action Plan and recommended that every local area should develop its own Biodiversity Action Plan by involving local people and organisations in a Biodiversity Partnership.

At a regional level, the London Biodiversity Partnership (LBP) was formed in 1996 and continues to work for wildlife in the Capital. More recently, the London Parks and Green Spaces Forum (LPGSF) was formed in 2001 to progress the agenda for London's parks, of which biodiversity is a key theme.

Since 1999, the statutory duty to protect biodiversity in London has rested with the Greater London Authority (GLA). Subsequently, all 33 London Boroughs have produced or are producing Local Biodiversity Action Plans.

As a major landowner, Southwark Council has a significant responsibility for protecting and managing biodiversity in the Borough. The Council already has a number of key strategies and initiatives in place to improve the environment and promote Local Agenda 21.

Work for Wildlife takes this work forward by providing a unified strategic framework for Southwark Council to work together with its partners to conserve, enhance and promote biodiversity in the Borough.

1.4 The Legal and Political Context

A decade after the 1992 'Earth Summit', the World's leaders met again in Johannesburg and agreed to achieve 'a significant reduction of the current rate of biodiversity loss at global, regional and national levels' by 2010. Within this context, *Work for Wildlife* will help the UK to deliver on that commitment at a local level.

Southwark's Biodiversity Action Plan is also informed by the Wildlife and Countryside Act 1981, which forms the backbone of nature conservation legislation. In addition, the Countryside Rights of Way Act, 2000, the Local Government Act, 2000 and the upcoming Natural Environment and Rural Communities (NERC) Bill also shape the Borough's work in this area.

1.5 Biodiversity in Southwark

The global context of the environmental agenda means that Southwark's Biodiversity Action Plan – *Work for Wildlife* – will make a positive impact that reaches beyond borough boundaries. However, the primary focus of *Work for Wildlife* is to conserve, enhance and protect biodiversity within the Borough of Southwark for the benefit of residents, visitors and future generations.

Southwark's residents are fortunate to live in such a green and habitat-rich borough offering everything from woodland and river banks to formal parks and informal private gardens. There are close to 100 parks and open spaces in the Borough and over 40 sites that are in private ownership or are not managed directly by the Parks and Sports Department. These include golf courses, school grounds, churchyards, railway sidings and vacant brownfield sites.

Some of these locations are listed amongst the 70 Sites of Importance for Nature Conservation (SINC) that has been identified across the Borough. Southwark also has four Local Nature Reserves (LNR), protected areas of land which are set aside for ecology and provide visitors with an opportunity to connect with nature. (A full list of the Borough's LNRs and SINCs can be found in Appendix 3 of this document).

Together, these sites provide a complex matrix of diverse habitats that play home to many different species of flora and fauna, some of which are regionally or nationally scarce. Rare plants such as cuckooflower and corky-fruited water dropwort can be found on council estate lawns in the south of the Borough, while the rare red-eyed damselfly can be found flitting amongst the reeds and lilies at Lavender Pond.

All manner of creatures also make their home in Southwark, from the Speckled Wood and Holly Blue butterflies of Peckham Rye to the bats of Sydenham Hill railway tunnel. The Borough also hosts a wide variety of birds including the wildfowl at Burgess Park; the kingfishers at Russia Dock; the woodpeckers on Old Kent Road and the tawny owls and sparrow hawks in Nunhead Cemetery.

All of these habitats and species make a contribution to the quality of life experienced by people living in Southwark. *Work for Wildlife* will ensure that future generations can continue to enjoy the benefits of the Borough's biodiversity.

Southwark has four Local Nature Reserves, which are protected areas of land set aside for ecology while providing visitors with an opportunity to connect with nature in a city environment.

1.7 Ecological Threats

The Borough's biodiversity is under threat from many sources including habitat loss, invasive species, pesticides and dogs. Southwark's Biodiversity Action Plan – *Work for Wildlife* – is designed to help redress these threats and provide strategies to conserve, enhance and promote wildlife in the Borough.

Habitat loss is a major concern in the Borough, with the constant demand for new homes and other buildings resulting in sites being lost to development. In addition, local wildlife is still under threat from pesticides, despite the production of a Pesticide Reduction Strategy in 1996.

Existing habitats are also under threat from invasive species, ranging from weeds such as the Japanese knotweed to seemingly harmless creatures like terrapins and ruddy ducks. Furthermore, dogs continue to cause environmental problems by creating waste, damaging trees and disturbing wildlife.

All of these issues are addressed in more detail in Appendix 4 of this document.

1.8 Benefits of the Biodiversity Action Plan

The Southwark Biodiversity Action Plan - *Work for Wildlife* – is designed to protect biodiversity in the Borough for the benefit of residents, visitors and future generations.

Work for Wildlife is a borough-wide plan, and as such includes all parks, public spaces, housing land, school grounds and sports fields. It also includes the Thames in Southwark, ponds and lakes, the built environment, highways and rail-sides.

These habitats, and the wildlife found within them, will be the main beneficiaries of the Plan. *Work for Wildlife* will also help enhance the quality of life experienced in the Borough by conserving, enhancing and promoting biodiversity in Southwark.

Every resident is affected by loss of biological diversity at some level. Therefore, it follows that all residents stand to benefit from the implementation of this Action Plan. In line with the theme of Southwark 2016, *Work for Wildlife* will also bring additional benefits to both residents and the environment by:

- Improving management of natural assets
- Promoting community cohesion
- Improving health
- Providing education opportunities
- Greening the physical environment
- Making the Council a 'greener' organisation

Work for Wildlife will be delivered over a four year period (2006-2010) and make a significant local contribution to meeting the UK's commitment to help deliver 'a significant reduction of the current rate of biodiversity loss at global, regional and national levels' by 2010.

1.9 Onward

Section Two of this document, 'Improving Southwark's Environment', explains in more detail what will be achieved by the implementation of Southwark's Biodiversity Action Plan.

SECTION TWO: IMPROVING SOUTHWARK'S ENVIRONMENT

WHAT WILL SOUTHWARK'S BIODIVERSITY ACTION PLAN ACHIEVE?

2. About this section

This section explains what difference Southwark's Biodiversity Action Plan – *Work for Wildlife* – will make to the Borough and what it will set out to achieve.

2.1 Aims and Objectives

The aim of *Work for Wildlife* is to provide a unified strategic framework for Southwark Council to work with its partners to conserve, enhance and promote biodiversity in the London Borough of Southwark for the benefit of residents, visitors and future generations. In the process, it will achieve the following objectives:

- Conserving and enhancing existing natural habitats within Southwark
- Conserving and enhancing existing species within Southwark
- Increasing grassland, wetland and woodland habitat resources in Southwark
- Tackling ecological threats
- Increasing public awareness of ecology
- Engaging communities in *Work for Wildlife*
- Engaging children and young people in *Work for Wildlife*
- Engaging key stakeholders in *Work for Wildlife*
- Developing an ecological monitoring strategy
- Establishing habitat and species working groups
- Promoting national and regional priority habitats and species relevant to Southwark

The remainder of this section gives a general overview of how each of the above objectives will be met. For a comprehensive list of actions that will be delivered through *Work for Wildlife*, see Section 4 of this report: 'Biodiversity in Action'.

2.2 Conserving and Enhancing Existing Habitats

Work for Wildlife will enable Southwark Council to take a fresh approach to conserving and enhancing the Borough's natural habitats. By placing a new focus on biodiversity, the Plan will promote a greater emphasis on ecological issues in Council policy and strategy.

Conservation designations for wildlife areas will be reviewed, byelaws will be enforced more rigorously, and parks and open spaces will be managed in line with 'Ecological Best Practice'. In addition, special attention will be paid to improving the Borough's many Sites of Importance for Nature Conservation.

Work for Wildlife also seeks to identify new and existing sources of community funding for biodiversity and promotes a greater role for local people in conserving and enhancing Southwark's natural habitats.

2.3 Conserving and Enhancing Existing Species

Work for Wildlife promotes the development of a 'Species Working Group' and 'Species Action Plans' to help conserve and enhance species in Southwark that are of national and regional importance. Both the work carried out to protect these species, and the work to

conserve and enhance Southwark's natural habitats, will also benefit other plant and animal species in the Borough.

Specific action plans have been developed to protect bats, Stag Beetles and the Corky-Fruited Water Dropwort. Additional action plans for House Sparrows, Song Thrushes and Great Crested Newts will be introduced in 2007 and 2008.

Work for Wildlife aims to conserve and enhance designated species through a range of strategic activities that include raising public awareness through events and information campaigns; working with key partners and stakeholders; developing a bat tunnel in Sydenham Hill Wood; introducing Stag Beetle breeding buckets in parks, housing sites and schools, and trans-locating rare flowers to new locations.

2.4 Increasing Grassland, Wetland and Woodland Habitats

Work for Wildlife aims to increase grassland, wetland and woodland habitat resources in Southwark through a range of initiatives that include creating 2,500m^2 of summer meadows across the Borough's four major parks; developing two new scrubland areas every year; designating two new Local Nature Reserves by 2010; restoring or creating four ponds by 2010; providing residents with native trees for planting in the Centre for Wildlife Gardening, and implementing woodland management plans across Southwark.

2.5 Tackling Ecological Threats

Work for Wildlife seeks to tackle some of the key ecological threats to biodiversity in the Borough, such as habitat loss, invasive species, pesticides and dogs.

Some of the actions that will be taken to tackle this issue include: creating new habitats; ensuring biodiversity is incorporated into all new developments; rewriting and adopting the Council's Pesticide Reduction Strategy, and promoting responsible dog ownership.

2.6 Raising Public Awareness

Work for Wildlife promotes a range of activities designed to increase public awareness of ecological issues. Building a broader understanding of the Borough's biodiversity will place the Council in a stronger position to conserve, promote and enhance Southwark's natural resources.

Key actions to raise public awareness will include: providing more information on wildlife through marketing campaigns; improving signage and interpretation materials at key sites; hosting public events promoting environmental issues; providing information on recycling and composting, organic produce and eco-friendly gardening.

2.7 Engaging Communities

Work for Wildlife will encourage local communities to become actively involved in conserving, enhancing and promoting biodiversity in Southwark. This will be achieved by creating a Southwark Conservation Volunteer Group, hosting woodland work days that develop community involvement in woodland management, and encouraging voluntary ecological monitoring through nature walks and events.

Other initiatives will include: developing events and information campaigns to promote wildlife gardening, beetle-friendly gardening and organic produce growing; assisting community groups to manage nature areas in partnership with other stakeholders, and introducing an annual programme of events to promote biodiversity.

2.8 Engaging Young People

Work for Wildlife will develop the involvement of children and young people in protecting the Borough's natural resources through a range of educational events and activities. These will

include: promoting the inclusion of biodiversity issues into the Early Years, Primary and Secondary schools' curricula; promoting walks to school through parks and green areas; advising schools on managing and understanding nature gardens, and creating a 'Young Ecologists Group' in partnership with the Young Friends of Parks programme.

2.9 Engaging Key Stakeholders

Work for Wildlife will be delivered in partnership with a broad range of partners including local residents, council departments, voluntary and community groups, national and regional bodies, and private sector organisations.

Southwark Council will work to engage these stakeholders in the conversation, enhancement and promotion of the Borough's wildlife through a range of activities that will include: attending quarterly meetings of the Southwark Biodiversity Partnership; establishing working groups to deliver habitat and species action plans, and developing workshops and briefing materials to provide ecological guidance to developers and planners.

2.10 Developing an Ecological Monitoring Strategy

In order to develop a deeper understanding of biodiversity in Southwark, *Work for Wildlife* proposes the development of an ecological survey and monitoring strategy for Southwark. This initiative will work in partnership with the GLA, LBP and feed into the National, Biodiversity Action Reporting System (BARS). This will be supported by the creation of a Borough-wide voluntary ecological monitoring group linked to the habitat and species working groups.

2.11 Establishing Working Groups

To help deliver the objectives of *Work for Wildlife*, working groups for habitat and species will be established in the Borough. These will be linked to the Southwark Biodiversity Partnership, whose members will assist the working groups where appropriate.

2.12 Promoting National and Regional Priorities

Although *Work for Wildlife* is a local action plan, it is also designed to promote national and regional initiatives which are relevant to Southwark. These will include: national and regional objectives on habitat creation; regional and national strategies for woodland; national and regional wildlife garden campaigns, and London-wide actions on priority species in woodland and wildlife habitats.

2.13 Onward

Section Three of this document, 'Working for Wildlife in Southwark' explains in more detail how the Borough's Biodiversity Action Plan will be delivered.

SECTION THREE: WORKING FOR WILDLIFE IN SOUTHWARK

HOW WILL SOUTHWARK'S BIODIVERSITY ACTION PLAN BE DELIVERED?

3. About this section

Southwark's Biodiversity Action Plan - *Work for Wildlife* – aims to help Southwark Council work with its partners to conserve, enhance and promote biodiversity in the London Borough of Southwark. This section describes the key steps that will be taken to ensure that *Work for Wildlife* is delivered successfully.

3.1 Developing the Biodiversity Action Plan

Work for Wildlife has been developed through the Southwark Biodiversity Partnership. The Partnership meets quarterly and sets out the strategic aims of The Plan. It also selects the habitats and species included in the Biodiversity Action Plan now and in the future.

Key Partners in the Southwark Biodiversity Partnership include Trust for Urban Ecology, London Wildlife Trust, Groundwork Southwark, Dulwich Estate, Bankside Open Spaces Trust, Centre for Wildlife Gardening, Southwark Environment Forum and Southwark Council Departments (Planning Policy, Environment & Leisure, Education, Highways, Housing, Regeneration).

Work for Wildlife has also been developed in close consultation with the London Biodiversity Partnership (LBP). Furthermore, it has been shared with community groups and the public through talks and events, such as the Bankside Open Spaces Trust (BOST) AGM, friends of parks group meetings and the Nunhead Open Day.

3.2 Delivering the Biodiversity Action Plan

The delivery of Southwark's Biodiversity Action Plan is as multi-tiered mechanism. Making *Work for Wildlife* in Southwark a success will involve the strategic deployment of:

- Working groups
- Action plans
- Partnership initiatives
- Effective evaluation

3.3 Working Groups

Developing effective Working Groups for species and habitats is key to the success of *Work for Wildlife*. These groups will take responsibility for delivering some of the actions within this plan. They will divided into sub-groups designed to focus on individual habitats and species and will incorporate:

- Experts in Biodiversity
- Stakeholders
- Community groups
- Individuals
- Corporate bodies
- Council departments

3.4 Action Plans

Work for Wildlife will be delivered through a series of action plans focusing on three key areas as follows:

- Generic Action Plans
- Habitat Action Plans
- Species Action Plans

3.5 Generic Action Plans

Work for Wildlife identifies a range of Generic Actions for conserving, enhancing and promoting biodiversity in Southwark. These are overarching biodiversity actions that will be delivered by all parties in the Southwark Biodiversity Partnership including the Working Groups for habitats and species.

The Generic Actions focus on the following key priorities of the Council:

- Health
- Education
- Community Safety
- Making the Borough Cleaner and Greener
- Local Economy

3.6 Habitat Action Plans

The Habitat Action Plans outlined in *Work for Wildlife* set out the framework for managing biodiversity in Southwark. Conserving, enhancing and promoting the Borough's natural resources is fundamental because these habitats provide homes, food and refuge for Southwark's wildlife.

The Habitat Action Plans are designed to address a broad range of factors such as climate change, management style, visitor numbers and public perception (which are addressed in more detail in Appendix 2. Each of these Action Plans will identify flagship species that help provide an indication of the ecological of individual habitats and the wider environment.

At present there are three Habitat Action Plans covering parks and open spaces, woodland and private gardens. It is anticipated that additional Habitat Action Plans for Waterways; the built environment; churchyards; crematoriums and cemeteries and railway linesides, will be introduced in 2007 and 2008.

3.7 Parks and Open Spaces Habitat Action Plan

There are 138 parks and open spaces listed in Southwark's park register, 53 of which are designation as SINC sites. The Parks and Open Spaces Habitat Action Plan identifies a range of actions that will help conserve, enhance and promote wildlife in these areas.

3.8 Woodland Habitat Action Plan

Around 4% of land in Southwark is covered in woodland, around twice the average for an inner London borough. The Woodland Habitat Action Plan outlines actions that will improve the management of areas dominated by trees or shrubs including hedgerows and railway linesides.

3.9 The Private Gardens Action Plan

Private gardens represent 25% of land use in Southwark. After parks and open spaces, this habitat provides the greatest opportunity for local residents to connect with nature. The way private gardens are managed can dramatically influence the Borough's wildlife. The Private Gardens Action Plan proposes a range of actions to conserve, enhance and promote biodiversity on private land.

3.10 Species Action Plans

Work for Wildlife includes a range of Species Action Plans that identify species of local, national and regional importance. These plans outline specific actions that will help protect the targeted species but also benefit other flora and fauna because of the interrelationships involved.

The Species Action Plans are designed to address a broad range of factors such as climate change, land management, human impact and public awareness (which are addressed in more detail in Appendix 2).
At present there are three Species Action Plans for Southwark targeting bats, stag beetles and corky-fruited water dropwort.

It is anticipated that additional Species Action Plans for the house sparrow; the song thrush and dragonflies and damselflies, will be introduced in 2007 and 2008.

3.11 Bats

Bats are a nationally important species whose numbers are on the decline. Southwark's action plan for bats is designed to protect the four or five species of bat found in Southwark through a series of initiatives. These include working in partnership with the National Bat Survey, raising public awareness and promoting habitats that encourage bats to roost.

3.12 Stag beetles

Southwark is a stronghold for the stag beetle, which is Britain's largest terrestrial beetle. Southwark's action plan for stag beetles is designed to protect and promote the species through a series of initiatives. These include: promoting beetle friendly gardening; creating loggeries in parks and open spaces and establishing beetle breeding buckets in woodlands, parks, housing sites and school nature gardens.

3.13 Corky-fruited water dropwort

The vascular plant, corky-fruited water dropwort is rare in London that has been selected to protect the diverse gene pool of Southwark's flora. Actions to conserve this plant, that will also benefit plants such as the cuckooflower and hairy wood rush, include: delaying lawn mowing at the existing site to allow the plant to flower and seed, developing a program to promote the plant and translocating the plant to new sites.

3.14 Partnership Initiatives

Work for Wildlife takes a multi-agency approach to conserving, enhancing and promoting Southwark's natural resources. By placing a new focus on biodiversity, the Plan will promote a greater emphasis on ecological issues in Council policy and strategy. Existing strategies, such as the Southwark Plan, will also play an integral role in delivering the aims of the Borough's Biodiversity Action Plan.

In addition to the actions outlined in this document, the Southwark Biodiversity Partnership will also work with existing local initiatives such as:

- Eco Schools Award
- CRISP
- Community Payback
- Walk Southwark
- Learning through Landscapes
- Wildwatch
- Go green for business
- Young friends of parks

3.15 Effective Evaluation

Work for Wildlife is designed to grow and evolve throughout the four years covered by the Plan (2006-2010). To help this process, the Plan will be road tested through external consultation with relevant bodies including community groups, local infrastructure organisations and Council departments.

3.16 Onward

Section Four of this document, 'Biodiversity in Action' provides a detailed list of actions that will be carried out to deliver Southwark's Biodiversity Action Plan.

SECTION FOUR: BIODIVERSITY IN ACTION

WHAT ACTIONS WILL THE SOUTHWARK'S BIODIVERSITY ACTION PLAN DELIVER?

4. About this section

This section provides a comprehensive overview of the key actions that will be carried out to deliver *Work for Wildlife.* These actions are outlined in a series of individual action plans under the following headings:

- Generic Action Plan
- Habitat Action Plan: Parks and Open Spaces
- Habitat Action Plan: Woodland
- Habitat Action Plan: Private Gardens
- Species Action Plan: Bats
- Species Action Plans: Stag Beetle
- Species Action Plans: Corky-Fruited Water Dropwort

4.1 Generic Action Plan

Objective 1: Improve the health of the borough through biodiversity actions. 2006-2010.

Action	Lead	Partners	Links to local initiatives
Promote walking in Southwark though nature walks, events and voluntary ecological monitoring. Hold 4 events a year.	Ecology Officer	LWT, BTO, TRUE, GWS.	Walk Southwark, Healthy Walks. Street Scene. Junior Street leaders, Green Chain.
Undertake feasibility study for 'Green Gym' by 2006. Provide a link to GP referrals.	Community Outreach Officer	BTCV, Southwark PCT.	
Create a Southwark Conservation Volunteer Group.	Ecology Officer	Parks & Sports.	
Promote organic produce growing in Southwark. Link to nature in parks and green spaces.	Ecology Officer	CWG, Allotment Societies, BOST, WGF, GWS.	Hart Garden. Diversity Garden BOST.
Promote green spaces as free areas for stress relief. Actions include producing leaflets.	Ecology Officer	Parks & Sports. GWS.	
Develop young person's involvement in biodiversity and open spaces, including through the creation of a 'Young Ecologists' programme.	Ecology Officer	YFPC, Community Outreach Team, GWS.	Young Friends of Parks, Junior Street Leaders.
Promote walk to schools through parks and green areas.	Ecology Officer	TFL.	Walk on Wednesdays.
Ensure design for biodiversity is incorporated into all new developments.	Ecology Officer	Parks & Sports, PDT, GWS, LBS Planning.	Cleaner Greener Safer.
Develop ecological management for all sports grounds and facilities.	Ecology Officer	Sports, Dulwich Estate.	

Objective 2: To raise the standards in our schools and increase education and awareness of biodiversity for all in the borough. 2006-2010.

Action	Lead	Partners	Links to local initiatives
Create a borough-wide voluntary ecological monitoring group. Link to Hap and SAP working groups.	Ecology Officer	BTO, Friends groups.	Wildwatch
Develop an ecological survey and monitoring strategy for the borough.	Ecology Officer	BTO, GLA, LWT. PTES, GWS, TRUE.	Wildwatch.
Produce interpretation material for the borough through the Parks and Public Places	Ecology Officer	Community Outreach Team, GWS.	Green Chain.

Action	Lead	Partners	Links to local initiatives
Strategy. Link to parks marketing campaign. Produce a biodiversity leaflet for Southwark.	Officer	Team, GWS.	
Promote inclusion of biodiversity issues into the Early Years, Primary and Secondary schools curriculum.	Ecology Officer	LBS Education	Eco Schools Award
Advise schools on managing and understanding nature gardens. Visit 4 schools a year.	Ecology Officer	LBS Education, YFPC, GWS, CWG.	Eco Schools Award
Develop an annual programme of events to promote biodiversity. Hold 4 events a year.	Ecology Officer	Community Outreach Team, SBP.	
Produce web pages for biodiversity on the Southwark Council Web Site. Provide Links to Wild Web GLA site.	Ecology Officer	GLA	Wild Web.
Promote the Wildlife & Countryside Act 1981 through practice, action and information.	Ecology Officer	LWT, GLA, TRUE, EN, EA, PDT, GWS.	
Provide ecological guidance to developers and planners, through the distribution of information on new legislation and national and regional guidance.	Ecology Officer	LBS Planning, EN, GLA, PDT.	Street Design Guide.
Hold biodiversity workshops for planning officers.	Ecology Officer	LBS Planning	
Develop Links to national environmental events at the borough level. Hold 1 event based on national event guidelines each year.	Ecology Officer	Community Outreach Team.	
Develop a biodiversity 'Who's Who' in the borough. Produce publicly accessible database.	Ecology Officer	SBP.	
Create a Young Ecologists Group. Link to Young Friends of Parks groups	Ecology Officer	YFPC.	Young Friends of Parks

Objective 3: To make the borough safer for all sections of the community through biodiversity actions. 2006-2010.

Action	Lead	Partners	Links to local initiatives
Promote responsible dog ownership. Link to parks dog shows and major parks events.	Ecology Officer	Dog Warden, Wardens.	'Flag the Poo'.
Ensure regular clean up of SINC sites to address neglect issues.	Ecology Officer	SBP.	Cleaner Greener Safer.
Ensure Byelaws (currently under review) are displayed and enforced in wildlife sites.	Ecology Officer	Wardens, Police.	

Action	Lead	Partners	Links to local initiatives
Review the use of lighting in parks & open spaces and particularly SINC sites.	Ecology Officer	LBS Planning, PDT.	Street Design Guide.
Rewrite the Council's 'Pesticide Reduction Strategy'. Launch as borough wide strategy by Autumn 2007.	Ecology Officer	LBS Housing. LBS Highways.	

Objective 4: Create a high quality sustainable environment through biodiversity actions. 2006-2010.

Action	Lead	Partners	Links to local initiatives
Promote "Ecological Best Practice" in horticulture and conservation management for contractors and public space managers.	Ecology Officer	SBP, Quadron.	Ecological contractors training
Promote ecological benefits of recycling and composting of waste materials in Southwark.	Ecology Officer	CRISP, CWG, GWS.	Home composting initiative.
Promote environmentally sympathetic management of open spaces, Deliver enhanced green corridors, Buffer Zones, living or 'green' roofs and walls.	Ecology Officer	GLA, Quadron, WGF, LBP. SBP.	Street Leader & Junior street leaders.
Promote peat use reduction in parks and open spaces management.	Ecology Officer	Quadron. GWS, CWG, WGF.	Sustainable Procurement
Create habitats for wildlife in parks and urban green spaces. Link to national and regional objectives on habitat creation.	Ecology Officer	SBP, WGF, Quadron, GLA,	
Promote sourcing of local materials for hard and soft landscaping projects. Link to the Council's Procurement Strategy.	Sustainable Procurement Officer.	Ecology Officer, Sustainable Procurement Officer, PDT, BOST.	Street Design Guide.
Ensure ecological enhancement is included in regeneration projects wherever possible.	Ecology Officer	LBS Planning, PDT, GWS.	Street Design Guide.
Ensure EIA is undertaken for large events and sports events/activities where potential impact upon natural environment.	Ecology Officer	Events Team, GWS, BOST.	
Promote and implement ecological assessment and mitigation for all parks, EDT, Regeneration and Cleaner Greener	Ecology Officer	PDT, SBP.	

Action	Lead	Partners	Links to local initiatives
projects in Southwark.			
Provide guidance and advice on ecology for the revision and production of Council policies and strategies.	Ecology Officer	LWT, GLA, LBP.	
Address areas of natural deficiency by creating habitats for wildlife in parks and open spaces. Link to national objectives on wildlife creation.	Ecology Officer	GLA. Parks & Sports, LBS Housing, SBP.	
Deliver an annual programme of ecological training for parks contractors. Hold 1 training sessions in each major park area per year.	Ecology Officer	TRUE, Quadron	
Prepare biodiversity briefing pack for builders and developers by 2008.	Ecology Officer	LBS planning.	
Review planning applications and identify opportunities for ecological enhancement.	Ecology Officer	LBS Planning	
Produce management plans for all SINC sites in borough.	Ecology Officer	LWT	

Objective 5: To ensure that everyone has an equal opportunity to share prosperity within the borough and to improve the quality of life for those most disadvantaged through biodiversity actions. 2006-2010.

Action	Lead	Partners	Links to local initiatives
Identify existing programmes and sources of community funding for biodiversity. Identify other sources of funding	Ecology Officer	SBP. Community Outreach Team.	Cleaner Greener Safer
Identify opportunities to increase conservation volunteering for hard to reach groups.	Ecology Officer	SBP, Community Outreach Team.	Community Payback, Youth reparation scheme.
Appraise Biodiversity Action Plan costs and implications for Education, Health, Planning, Housing and Highways Departments.	Ecology Officer	SBP.	

Actions in **Bold** may present resource implications to be achieved.

4.2 Habitat Action Plan: Parks and Open Spaces

The Habitat Action Plan for parks and open spaces includes:

- Amenity grassland
- Sports fields
- Open spaces on housing land
- Hospitals
- Schools
- Squares
- Nature gardens
- Pocket parks

The plan does not include:

- Ancient woodland
- Allotments
- Cemeteries
- Private gardens

4.2.1 Current Status

Parks and open spaces are managed primarily for amenity use; historically many were created as ornamental gardens offering public recreation. Housing land offers formally managed green spaces without encouraging amenity use. Small squares and pocket parks range in quality, style and habitat diversity in Southwark, and sports fields have been managed primarily for sports use.

Historically management for the majority of these areas has been intensive, which has reinforced a perception that traditional parks management is for tidiness and formality with everything in its place. Indeed some parks appear manicured in their character. One result of this is that the presence of natural habitats, such as scrubland, is seen as symptomatic of neglect and presents a belief that these areas are a haven for antisocial behaviour. In contrast, public interest in nature has developed with an expectation that the parks and open spaces provide more diversity and support a larger range of species.

Many of Southwark's local Societies, Tenant Associations and the parks 'Friends of' groups have expectations that the Council should manage parks and open spaces more sympathetically for nature today.

Parks officers have developed unique relationships with the voluntary sector to conserve and manage these sites, including Bankside Open Spaces Trust (BOST), the Trust for Urban Ecology (TRUE), the London Wildlife Trust (LWT), the Centre for Wildlife Gardening (CWG) and the parks Friends groups.

Parks and open spaces account for about 12% of Southwark's overall land use. Thirty two of the SINC sites in the borough are parks and open spaces, with varying levels of importance: some are borough grade 1 and grade II, whilst the rest are listed as 'of Local Importance'.

4.2.2 Current Statutes

The council parks Byelaws (currently under review) address inappropriate activities in parks. The Wildlife & Countryside Act 1981 affords protection for flora and fauna.

4.2.3 Flagship Species

These plants and animals are characteristic or of specific importance to parks and open spaces in Southwark.

Oxeye daisy	*Leucanthemum vulgare*	White & yellow large flowered daisy, attractive to wildlife.
Buttercups	*Ranunculus* spp	Indicator of less intensively managed lawns.
Rosebay willowherb	*Chamaenerion angustifolium*	Once common in London; now a London priority species. Rare in Southwark.
Song thrush	*Turdus philomenos*	National BAP species in decline. Found in Southwark's southern parks.
Greater spotted woodpecker	*Dendrocopos major*	Requires dead wood for habitat. Indicator of healthy environment.
Holly blue butterfly	*Celastrina argiolus*	Culturally valued, requires ivy, holly and bramble.
Meadow brown butterfly	*Maniola jurtina*	Characteristic of long grassland. Requires long grass for over wintering.
Six spot burnet	*Zygaena filipendula*	Indicative of good grassland habitat. Colourful day flying moth.
Stag beetle	*Lucanus cervus*	Requires dead tree stumps for long larval stage. UK's largest beetle.
Bats Species		Require unlit park areas, open water and mature trees and ivy for roosting.

4.2.4 The Action Plan

Objective 1. To protect biodiversity in Southwark's parks and open paces. 2006-2010.

Action	Responsibility	
	Lead	Other Partners
Review conservation designations for parks wildlife areas.	Ecology Officer	Friends groups, TRUE, BOST, GWS.
Identify and designate suitable sites as LNR's. Designate 2 Suitable sites by 2010.	Ecology Officer	Friends groups, LWT, EN, TRUE.
Encourage community involvement in wildlife areas through interpretation and conservation projects. Undertake 2 project per year.	Ecology Officer	Community Outreach Team, SBP.

Objective 2. To enhance habitats in parks and open spaces. 2006-2010

Action	Responsibility	
	lead	Other partners.
Identify and develop areas for meadow creation in parks and open spaces. Contribute to regional objectives for meadow creation.	Ecology Officer	GLA, SBP.
Create 2.500 m2 of summer meadows across the four major parks at a cost of £25.000.	Ecology Officer	Friends Groups. Park managers.
Assist community groups to manage nature areas in partnership with other stakeholders. Hold 2 friends of parks guidance sessions per year.	Ecology Officer	VCS, GWS, LWT, CWG, BOST.
Retain dead wood and leaf litter where applicable in parks.	Ecology Officer	Parks & sports, Tree Dpt.
Target London priority species in wildlife habitat management actions. Link to SAPs.	Ecology Officer	GLA. SBP.
Identify and develop areas suitable for natural succession of scrubland or for native scrub planting in parks and open spaces. Establish 2 new areas each year.	Ecology Officer	SBP.
Identify opportunities for enhancing biodiversity in parks water bodies. Restore or create 4 ponds by 2010.	Ecology Officer	Waterways Officer, SBP, GLA.

Objective 3. Promote biodiversity in parks and open spaces. 2006-2010.

Action	Responsibility	
	Lead	Other Partners
Introduce interpretation signs for wildlife and ecology areas as part of parks signage strategy.	Ecology Officer	SBP.
Develop a program of educational and interpretation events for schools, partners and the public. Hold 3 event per year.	Ecology Officer	SBP, WGF.
Promote links of Parks and Open Spaces HAP to Species Action Plans.	Ecology Officer	SBP, CWG.

Actions in **Bold** may present resource implications to be achieved.

4.3 Habitat Action Plan: Woodland

The Habitat Action Plan for Woodland covers:

- Ancient woodland
- Secondary Woodland
- Pocket woodland
- Scrubland with trees
- Hedgerows

This Action Plan covers plant communities dominated by trees and/or shrubs: it includes woodland regardless of origin or species but excludes street trees; it also includes hedgerows and railway linesides.

4.3.1 Current Status

Woodland is a rare habitat in Inner London. Southwark has 4 % of its land mass covered by woodland; this compares favourably with London overall where woodland accounts for only 2% of land cover.

There are only two unequivocal ancient broadleaf woodlands in Southwark: Dulwich Wood and Hitherwood (an outcrop of the former). Parts of Sydenham Hill Wood, Dulwich Upper Wood and tiny tracts of One Tree Hill are also regarded as ancient woodland.

Sydenham Hill Wood, Nunhead Cemetery and Dulwich Upper Wood are designated as Local Nature Reserves in Southwark. Nunhead Cemetery is the largest secondary wood near to the centre of London. Russia Dock Woodland is an important ecological site built on brownfield land; this woodland incorporates several ponds, which is a rare mixture of habitats for Southwark.

There is no lower limit put on how small a wood can be in inner London boroughs; just a few trees may be considered a wood. The Forestry Authority set a lower limit for grants applications at 0.25 ha.

Veteran trees within parks are of major ecological importance, providing a largely untouched habitat many feet above the ground. These require special protection to ensure their continued contribution to biodiversity.

Woodland provides benefits for Southwark residents by offering a varied component to the landscape and as a place for recreation, often as a retreat from city life. Their contribution to wildlife is considerable with nationally rare species residing within them.

Indirect benefits of woodland include fixing carbon dioxide and their ability to clean the air, an important factor in an urban environment.

4.3.2 Legal Status

Ancient woodlands have good protection in Southwark with Sydenham hill & Dulwich wood, One tree hill, Dulwich Upper Wood and Hitherwood designated as Metropolitan Open Land. Sydenham Hill Wood is also a LNR. Nunhead Cemetery is protected in the same way but also as a burial ground. Other secondary woodland is less protected; for example the pockets of woodland that have established on vacant land are not covered under MOL protection.

TPOs provide protection for individual trees. This is important as veteran trees are a rich ecological resource requiring protection.

4.3.3 Policy

Southwark has a Tree Strategy (Draft) that seeks to manage existing and future tree stock and ensure sustainable management while implementing national, London-wide and borough legislation and policy frameworks regarding trees.

There are a number of policy initiatives for planting new woodland and managing existing woodland. Ones with the most relevance to Southwark are:

- Forestry Practice Guidelines for the management of lowland mixed broadleaved woodland, published in the mid 1990's.
- The Tree and Woodland Framework for London in 2005. Its main focus is to improve management, and to protect, improve access and raise awareness of London's trees and woodland.
- The London Woodland Advisory Group acts as a working group for the London Parks and Green Spaces Forum. This provided advice on implementing national woodland policy.
- The London Biodiversity Partnership has produced a Woodland Habitat Action Plan that aims to protect, enhance and promote woodland in London.

4.3.4 Management

Southwark contains ancient, secondary and scrub woodland habitats. Even though ancient woodland covers a small area (20 ha), it is the most important habitat because of its ecological diversity and because it has been in existence for over 400 years. The continuity of the habitat enables the development of characteristic flora and fauna, many of which are not able to survive in any other environment; this means that the habitat is impossible to replace once lost.

The management of Southwark's ancient woodland is devolved to LWT in the case of Sydenham Hill Wood and TRUE for Dulwich Upper Wood. Hitherwood and Dulwich Wood are owned and managed by Dulwich Estates.

Nunhead Cemetery, Russia Dock Woodland and One Tree Hill are managed directly by the Southwark Parks department. The small areas of woodland within major parks such as

Peckham Rye and those in tier two and tier three parks have been omitted from the Integrated Parks Grounds Maintenance Contract and are managed on an ad hoc basis. It is less clear as to the level of management afforded to the pockets of secondary woodland that fall outside the parks sites. Southwark owns many of these brownfield sites; currently they fall under either the Housing, Highways, Education or Environment and Leisure remits.

4.3.5 Flagship Species

These species are characteristic or especially significant to Southwark's woodland

Bats Species		Important indicator of a healthy environment. Many roost in trees.
Oak Species	*Quercus*	All oaks support a large range of species, important for diversity.
Purple hairstreak butterfly	*Quercusia quercus*	Rare butterfly seen around canopy of oaks trees.
Speckled wood butterfly	*Pararge aegeria*	Butterfly seen in woodland glades and woodland edge.
Greater spotted woodpecker	*Dendrocopos major*	Attractive bird often heard 'drumming' for insects.
Stag beetle	*Lucanus cervus*	Requires dead tree stumps for long larval stage. UK's largest beetle.
Sparrowhawk	*Accipiter nisus*	Predator, nests in woodlands.

4.3.6 The Action Plan

Objective 1: Protect woodland habitat and species in Southwark. 2006-2010.

Action	Responsibility	
	Lead	Other Partners
Undertake a baseline survey of secondary woodland and scrub pockets in Southwark. Produce database of woodland by 2008. Protect secondary woodland and scrub identified in survey.	Ecology Officer	GLA, Forestry Commission, LWT, TRUE.
Designate One Tree Hill as a LNR by 2007.	Ecology Officer	FROTH, LWT, EN.
Integrate Woodland HAP actions with the Tree Strategy by 2007.	Ecology Officer	Tree Dpt, TRUE, LWT.
Retain deadwood where feasible in parks and open spaces, utilising various methods for reuse.	Ecology Officer	Parks & Sports, Tree Dpt, SBP, PTES.
Develop buffer zones between public woodland and private landowners where appropriate.	Ecology Officer	SBP, Dulwich Estate.

Action	Responsibility	
	Lead	Other Partners
Link Southwark actions to regional and national strategies for woodland. Focus Southwark actions on London woodland priority species.	Ecology Officer	Forestry Commission. GLA.

Objective 2: Enhance woodland habitats. 2006-2010.

Action	Responsibility	
	Lead	Other Partners
Identify appropriate management for woodlands, including natural regeneration. Produce management plans for council owned woodlands. Implement woodland management plans.	Ecology Officer	Forestry Commission, EN, LWT, TRUE. Park Managers.
Develop community involvement in woodland management. Undertake 2 Council woodland workdays per year.	Ecology Officer	Community Outreach Team, LWT, TRUE. GWS.
Create habitats for key woodland species (bats, stag beetle, speckled wood butterfly).	Ecology Officer	SBP, YFPC.

Objective 3: Promote woodlands and woodland species in Southwark. 2006-2010.

Action	Responsibility	
	Lead	Other Partners
Introduce interpretation signs for woodlands as part of the Council's signage strategy.	Ecology Officer	Parks Managers. LWT. TRUE, GWS.
Develop a program of woodland education and interpretation events for schools and public. Hold 3 events per year.	Ecology Officer	SBP, YFPC, Forestry Commission, EN.
Promote stag beetle, bats and priority species in woodland management.	Ecology Officer	LBP. Forestry Commission, EN, TRUE, LWT, PTES.

Actions in **Bold** may present resource implications to be achieved.

4.4 Habitat Action Plan: Private Gardens

Private gardens are defined as 'private open space surrounding residential dwellings where the householders have sole responsibility for management'. Allotments and community gardens are also included in this description.

4.4.1 Current Status

Gardening is the most widely practiced hobby in the UK. Outside nature reserves, parks, woods and other open spaces, gardens offer the best opportunities to connect with nature and also a refuge for wildlife in London. Therefore how they are managed can dramatically influence the biodiversity present.

Gardens are important for education. Research by Learning Through Landscapes suggests that gardens contribute to increased academic achievement, improved behaviour and better social interaction.

About 25% of the land use in Southwark is as private gardens. The majority of the gardens are in the south of the borough with large housing estates covering the north. With land in short supply the northerly gardens tend to be small in size.

Southwark has the Centre For Wildlife Gardening based in Peckham. This important project is part funded by the Council and offers educational and community opportunities to promote wildlife in gardens and parks.

4.4.2 Legal Status

Private gardens are rarely protected on the grounds of biodiversity or as sites of importance for nature conservation. Planning policy in Southwark contains a policy to consider biodiversity in all planning applications. Gardens in Conservation Areas are better protected, and land owned by the Dulwich Estates protects gardens as part of the lease agreement. The Wildlife and Countryside Act 1981 protects various species, notably, birds, bats, slowworms, great crested newts, common lizards and grass snakes. Tree Preservation Orders protect important trees in gardens.

4.4.3 Promoting, surveying and targeting the habitat

There is no shortage of organisations promoting wildlife gardening: LWT, Royal Horticultural Society (RHS), British Trust for Ornithology (BTO), Royal Society for the Protection of Birds (RSPB) and Gardening Which all produce guidance and tips on wildlife gardening and monitoring species present.

Surveying gardens has been undertaken on a national scale by organisations such as BTO, Butterfly Conservation and the Mammal Society. Locally the LWT ‘Wildlife in Gardens’ survey resulted in over 4000 responses.

The Centre for Wildlife Gardening in Southwark delivers an annual program of events each year, including a free native tree promotion.

4.4.4 Flagship Species

These animals are characteristic or of specific importance to private gardens in Southwark.

Common frog	*Rana temporaria*	Popular species in London, eats slugs. Requires ponds to reproduce.
Dragonflies	*Odonata*	Large colourful flying insects that require fish free ponds with marginal planting.
Wren	*Troglodytes troglodytes*	Found in shrubs hides from view but is detected by its explosive trilling song.
Blackbird	*Turdus merula*	Has a fine singing voice, often heard scratching about under shrubs

		scratching about under shrubs.
Ladybird	*Coccinellids*	Colourful and loved by children. A great natural insecticide eating aphids.
Bumblebee	*Bombus* spp	Present in most gardens. Visible when visiting nectar rich garden flowers.
Holly blue butterfly	*Celastrina argiolus*	Notable for having two generations with different caterpillar food plants, the berries of holly and the flower buds of ivy.
Grasshoppers		Important long grass species.
House sparrow	*Passer domesticus*	Once common in London, nests in holes in buildings. Has declined in recent years.

4.4.5 The Action Plan

Objective 1: To encourage protection of wildlife habitats in Southwark's private gardens. 2006-2010.

Action	Responsibility	
	Lead	Other Partners
Produce a guidance sheet for conservation of garden wildlife threatened by developments. Link to campaign to retain front gardens.	Ecology Officer	CWG, RHS, EN, LBP.
Encourage organic gardening across the borough. Distribute leaflets to gardeners.	Ecology Officer	CWG, EN, RHS.
Inform gardeners of the Wildlife & Countryside Act 1981.	Ecology Officer	CWG, EN.
Develop links to national and regional wildlife garden campaigns.	Ecology Officer	RHS, EN, LBP, CWG.

Objective 2: To encourage enhancement of gardens for wildlife. 2006-2010.

Action	Responsibility	
	Lead	Other Partners
Provide native trees for Southwark's residents through CWG on yearly basis.	Ecology Officer	CWG.
Provide advice on enhancement of gardens for wildlife.	Ecology Officer	CWG, RHS, LBS Southwark.
Promote ponds in gardens.	Ecology Officer	CWG, En, RHS.

Action	Responsibility	
	Lead	Other Partners
Work with garden centres to encourage environmentally friendly gardening.	Ecology Officer	RHS, CWG. EN, LBP.
Promote recycling, especially composting.	Ecology Officer	CRISP. CWG, RHS, EN.
Promote alternative wildlife habitats, hanging baskets and window boxes for those without gardens.	Ecology Officer	CWG,

Objective 3: To promote benefits of wildlife gardening and promote sustainable gardening. 2006-2010.

Action	Responsibility	
	Lead	Other Partners
Promote benefits of wildlife gardening at events, friends group meetings, etc.	Ecology Officer	CWG, RHS, EN, LBP.
Promote sustainable garden development and design.	Ecology Officer	CWG, LBP, RHS, EN.
Develop program of events to promote wildlife gardening. Hold 3 events per year.	Ecology Officer	CWG, GWS, RHS, LBP.
Undertake Southwark post card garden wildlife survey. Produce report by 2008.	Ecology Officer	CWG.
Survey allotment holders on wildlife gardening. Produce report by 2007.	Ecology Officer	CWG.

Actions in **Bold** may present resource implications to be achieved.

4.5 Species Action Plan: Bats

All of London's bat species are dealt with collectively in this plan for the following reasons:

- Those currently concerned with the conservation of bats deal with all species.
- All bat species and their roosts are equally protected by law.
- The conservation issues for all bat species are believed to be generally similar, so measures proposed here will be of benefit to a number of species.

4.5.1 Current Status

The bat species recorded in Southwark are:

- Two species of pipistrelle, P*ipistrellus pipistrellus and Pipistrellus pygmaeus*,

- Noctule, *Nyctalus noctuli,*
- Daubenton's bat, *Myotis daubentoni,*
- Brown long eared bat *Plecotus auritus*
- (and possibly) Natterer's bat *Myotis natterii*.

Bats are the only mammals to have developed powered flight. They are highly adapted nocturnal mammals, often thought of as flying mice. They are more closely linked to humans than to rodents, and form a special group of their own: *Chioptera* meaning 'hand-wing' in Greek. They are nocturnal so are mostly seen at dusk and dawn.

The British bats are voracious insectivores eating a wide variety and number of insects each night. A single pipistrelle can eat as many as 3000 midges in a night.

The decline of bat populations in London is closely linked to the loss of natural roost sites in trees and woodlands, but many bats have also adapted to living in buildings. London residents have been surprised to find bats sharing their homes for short periods in the summer, when female bats need somewhere warm to raise their young. The increase of bats populations today is dependant on the goodwill towards bats in homes.

Bats are excellent indicators of a healthy environment; their complex ecological requirements leave them highly sensitive to environmental changes, therefore their decline should be of major concern to us all.

Because of their nature and mobility, bats are very difficult to survey. Evidence suggests a 70% decline in pipistrelle species in London Between 1978 and 1993[1]. Harris *et. al*. 1995. The London Bat Audit (compiled 1980's), is included in Appendix 5.

Bats have been recoded across the borough. They are known to visit the Thames, Burgess Park Lake, Peckham Rye Park, Russia Dock Woodland, Canada Water and the Surrey Docks complex, Dulwich Park, Sydenham Hill Wood, One Tree Hill, Nunhead Cemetery, Belair Park, Southwark Park and Sunray Gardens. A survey of the borough would produce more accurate densities and dispersal of bats in Southwark. Detecting roosts is difficult because of the protection of roost by law. Generally, ivy covered large trees provide good roosting opportunities for bats.

A recent survey of the disused Sydenham Hill railway tunnel recorded the brown long eared bat. An evening bat walk in September 2005 recorded Common Pipistrelle and Daubenton's Bat in Belair Park.

4.5.2 Legal Status

All species of bat are protected in the UK on Schedule 5 of the Wildlife and Countryside Act, 1981. (as amended by the Countryside Rights of Way Act, 2000) and on Schedule 2 of the Conservation (Natural Habitats &c.) Regulations, 1994. The latter implements European legislation protecting bats. Bats are also protected from cruel ill treatment by the Wild Mammals (Protection) Act, 1996.

The UK is a signatory to the Agreement on the Conservation of Bats in Europe, which came into force in 1994. This is part of the Bonn Convention on the Conservation of Migratory Species of Wild Animals, 1979. While this is not strictly a legal agreement, as a signatory the UK is obliged to abide by such agreements.

4.5.3 Awareness Raising

Several organisations including the Bat Conservation Trust, LWT, London Bat Group (LBG), TRUE, and London Local Authorities promote bats and their place in London life. This is delivered through guidance leaflets, guided walks, illustrated talks, training and other articles.

4.5.4 Bat Wardens

The LBG co-ordinates a network of licensed bat-wardens, working in liaison with English Nature to safeguard bat roosts, particularly in houses. They also participate in surveys including the Bat Conservation Trust's National Bat Monitoring Programme.

4.5.5 The Action Plan

Objective 1: To raise awareness of bats, their ecology, conservation and legal protection in Southwark. 2006-2010.

Action	Responsibility	
	Lead	Other Partners
Develop program walks and talks on bats and their habitats in Southwark. Hold 2 events per year.	Ecology Officer	Community Outreach Team, LBG.
Distribute information on bats and their roosts regarding their legally protected status to relevant bodies.	Ecology Officer	LBG. SBP.
Ensure bat surveys are undertaken by developers and planners.	Ecology Officer	LBS Planning,
Provide advice on bats and their habitat to public, developers and contractors.	Ecology Officer	LBG, LWT. TRUE.

Objective 2: To monitor populations of bats in Southwark. 2006-2010.

Action	Responsibility	
	Lead	Other Partners
Undertake audit of bats in Southwark. Identify three locations to survey across borough.	Ecology Officer	LBG.
In partnership contribute to National Bat Survey.	Ecology Officer	LBG, EN, Southwark Biodiversity Partnership.

Objective 3: To conserve bats and their habitats in Southwark. 2006-2010.

Action	Responsibility	
	Lead	Other Partners
Promote retention of mature trees, standing dead wood and ivy-covered trees across the borough. Promote link to the Southwark Tree Strategy.	Ecology Officer	Park Managers, LWT, Tree Dpt. LBS Housing, LBS Highways, TFL, SBP.
Encourage composting in Southwark.	Ecology Officer	CRISP, CWG.

Action	Responsibility	
	Lead	Other Partners
Undertake bat tunnel Hibernation project in Sydenham Hill Wood by 2008.	Ecology Officer	LB Lewisham, LWT.
Develop Dulwich Common as key bats habitat zone.	Ecology Officer	Dulwich Estate, LWT.
Introduce 10 new bat boxes each year in parks and open spaces.	Ecology Officer	FROTH, LBG, SBP.

Actions in **Bold** may present resource implications to be achieved

4.6 Species Action Plans: Stag beetle

The Species Action Plans for the stag beetle is outlined below.

4.6.1 Current Status

The stag beetle (*Lucanus cervus)* is Britain's largest terrestrial (ground living) beetle. Its large antler shaped mandibles, which are used for fighting other males, easily identifies the male. The female has smaller mandibles. They can reach 8 cm in length and have shiny chestnut-violet wing cases.

The stag beetle requires dead wood to complete its life cycle. The eggs are laid underground in the soil next to logs or dead trees and the larva will spend between five and seven years in the wood. They contribute to recycling of dead wood that in turn enriches the soil. Timber is also utilised, notably sunken fence posts.

The adults emerge from mid may until late July and can be seen flying on summer evenings an hour or two before dusk. The adults feed on fruit and the sap of trees and though short lived (they often die after mating) some may over-winter in sites such as compost heaps.

The stag beetle is recorded across the Borough of Southwark, with the largest concentrations occurring in the south around Dulwich, Honour Oak and Sydenham Hill. London has a nationally significant population of stag beetle. A 1998 survey of London recorded over 3,000 about 30% of the national population; South London in particular is a stronghold for the beetle.

Loggeries have been built in Sydenham Hill Wood and breeding buckets have been introduced in One Tree Hill. The friends of parks groups often lobby for the retention of dead wood for their contribution to biodiversity.

4.6.2 Legal Status

The stag beetle is listed on Schedule 5 of the Wildlife and Countryside Act, 1981. This prohibits trade, which is a major threat to this species in Europe; it is also listed on Appendix III of the Bern Convention on the conservation of European Wildlife and Natural Habitats, 1979 and Appendix II of the Habitats Directive. The latter requires the UK to designate Special Areas of Conservation (SAC) specifically to protect the stag beetle. Southwark is listed a key borough for this species in the London Stag Beetle Species Action Plan. Loggeries have been constructed in Sydenham Hill Wood to provide the habitat required.

4.6.3 The Action Plan

Objective 1: To conserve and increase the populations of stag beetle in Southwark. 2006-2010.

Action	Responsibility	
	Lead	Other Partners
Create loggeries in parks and open spaces wildlife areas. Create 4 loggeries across borough by 2008. Support TRUE Stag Beetle Centre Project.	Ecology Officer	TRUE. PTES, LWT, YFPC.
Retain dead wood including standing dead wood where applicable.	Ecology Officer	Tree Dpt, SBP.
Contribute to regional survey of stag beetle breeding sites.	Ecology Officer	LWT, PTES, YFPC, CWG.
Review stump grinding and tree chipping activities in Southwark as identified in Southwark Tree Strategy.	Ecology Officer	Tree Dpt. LBS Housing.

Objective 2: To enhance the habitat for stag beetles in Southwark. 2006-2010.

Action	Responsibility	
	Lead	Other Partners
Establish stag beetle breeding buckets in woodlands, parks, housing sites and school nature gardens. Establish 8 buckets in Southwark each year.	Ecology Officer	PTES, YFPC, Friends groups, WGF, SBP.
Retain dead wood and leaf litter where applicable, in borough nature areas, parks and public open spaces.	Ecology Officer	Parks & Sports, SBP.
Reduce stump grinding where applicable.	Ecology Officer	LBS Housing.
Recycle wood chippings from street tree work to stag beetle centres in borough.	Ecology Officer	Tree Dpt, LBS Housing, LBS Highways, TRUE.

Objective 3: To raise awareness of stag beetles in Southwark. 2006-2010.

Action	Responsibility	
	Lead	Other Partners
Distribute advice on stag beetles to Park Managers, arboriculturist's and developers.	Ecology Officer	PTES, LWT, TRUE.
Promote beetle friendly gardening. Produce leaflet for gardeners. Link to	Ecology Officer	CWG, RHS, PTES, TRUE.

Action	Responsibility	
	Lead	Other Partners
LWT stag beetle campaign.		
Co-ordinate borough actions to London Stag Beetle Working Group.	Ecology Officer	LBP, SBP.
Develop program of stag beetle projects across borough. Hold 3 events per year.	Ecology Officer	SBP, YFPC, Community Outreach Team.
Monitor populations of stag beetle in Southwark. Produce report by 2008.	Ecology Officer	PTES, LWT. TRUE.

Actions in **Bold** may present resourcing implications to be achieved

4.7 Species Action Plans: Corky-fruited water dropwort

The Species Action Plan for the Corky-Fruited Water Dropwort is outlined below:

4.7.1 Current Status

Corky-fruited water dropwort is a vascular plant rare to London and is recorded at only six London locations, one of them being at the lawns in Countisbury House in Sydenham Hill. It is indicative of traditional meadows and pastures and prefers damp conditions. The plant is a member of the carrot family and is poisonous. The plant closely resembles parsnip and the root is tasteless.

The lawns of Countisbury House in Sydenham Hill are the only known location of this plant in Southwark.
The plant is rare but not listed as UK scarce; it is however listed as a species of conservation concern for Greater London.

Countisbury House lawns are listed as borough importance grade II in the last London Ecology Unit audit of Southwark. The lawns are also designated as Metropolitan Open Land (MOL).

The mowing regime of Countisbury House lawns have been changed so that the dropwort can flower and seed each year. This now means that the lawns are not mown until late summer. Another rare plant, Cuckooflower, is found here so this change will benefit this plant as well.

4.7.2 Legal Status

Corky-fruited water dropwort is given the same protection under the Wildlife and Countryside Act, 1981 as all British wild flowers.

4.7.3 The Action Plan

Objective 1: To conserve the corky-fruited water dropwort. 2006-2010.

Action	Responsibility	
	Lead	Other Partners
Ensure lawns of Countisbury House are not mown until September to	Ecology Officer	LBS Housing. LWT.

Action	Responsibility	
	Lead	Other Partners
allow the plant to flower and seed. Ensure all cuttings are removed from site.		
Collect seeds of plant for propagation in other suitable locations. Identify suitable locations for translocation.	Ecology Officer	CWG, LWT, TRUE.
Translocate the plant to two new areas in Southwark by 2008.	Ecology Officer	CWG, LWT. TRUE.

Objective 2: To enhance the existing habitat and introduce the plant to new sites where applicable. 2006-2010.

Action	Responsibility	
	Lead	Other Partners
Draw up management plan for lawns.	Ecology Officer	LWT.
Identify and manage any problem weeds on lawns.	Ecology Officer	LWT.

Objective 3: To promote and raise awareness of corky fruited water dropwort. 2006-2010.

Action	Responsibility	
	Lead	Other Partners
Develop program of promotion for this plant. Hold one event per year.	Ecology Officer	SBP
Set up a Working Group for the Corky Fruited Water Dropwort SAP.	Ecology Officer	SBP.

Actions in **Bold** may present resource implications to be achieved

Links, Abbreviations/Acronyms and References.

Web Links.

Southwark Council

www.southwark.gov.uk

UK BAP

www.ukbap.org.uk

London Biodiversity Partnership

www.lbp.org.uk

London Wildlife Trust

www.wildlondon.org.uk

Trust for Urban Ecology

www.urbanecology.org.uk

People's Trust for Endangered Species

www.ptes.org

London Bat group

www.londonbats.org.uk

The Bat Conservation Trust

www.bats.org.uk

Forestry Commission

www.forestry.gov.uk

Frog life

www.froglife.org

Bug life

www.buglife.org.uk

References:

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6. Outdoor Education – the OFSTED view. 2004.
7. Working with the Grain of Nature, Chapter 12 Education & Public Understanding. 2002.
8. Increasing the Momentum; vision statement for biodiversity in Local Government. ALGE. 2004
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10. Natural Partners, England Biodiversity Group. 2003
11. Biodiversity Action Plans, London Wildlife Trust. 1998.
12. Design for Biodiversity, London Development Agency. 2005.
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Abbreviations/acronyms.

BAP	Biodiversity Action Plan
BOST	Bankside Open Spaces Trust
BTCV	British Trust for Conservation Volunteers
BTO	British Trust for Ornithology
CABE	Commission for Architecture and the Built Environment
CRISP	Community Recycling in Southwark Project
CWG	Centre for Wildlife Gardening
DCMS	Department of Culture, Media and Sport
DETR	Department of the Environment, Transport and Regions
EA	Environment Agency
EDT	Environmental Development Team (Environment & Leisure)
EIA	Environmental Impact Assessment
EN	English Nature (now Natural England)
FROTH	Friends of One Tree Hill
GLA	Greater London Authority
GWS	Groundwork Southwark
HAP	Habitat Action Plan
HLF	Heritage Lottery Fund
ICC	Integrated Cleaning Contract
IPGMC	Integrated Parks Grounds Maintenance Contract
LBG	London Bat Group

LBP	London Biodiversity Partnership
LNHS	London Natural History Society
LNR	Local Nature Reserve
LWT	London Wildlife Trust
MOL	Metropolitan Open Land
NHS	National Health Service
ODPM	Office of the Deputy Prime Minister (now Department for Communities and Local Government, DCLG)
PCT	Southwark Primary Health Care Trust
PDT	Project Development Team (Environment & Leisure)
PTES	Peoples Trust for Endangered Species
RHS	Royal Horticulture Society
RSPB	Royal Society for the Protection of Birds
SA	Species Action Plan
SBP	Southwark Biodiversity Partnership
SDT	Service Development Team (Parks)
SINC	Site of Importance for Nature Conservation
TFL	Transport for London
TPO	Tree Protection Order
TRUE	Trust for Urban Ecology
UDP	Unitary Development Plan
VCS	Volunteers Centre Southwark
WGF	Walworth Garden Farm
YFPC	Young Friends of Parks Co-ordinator

Appendices

Appendix 1: Southwark Biodiversity Partnership Terms of Reference.

Mission Statement.

The Partnership's function is to produce a Local Biodiversity Action Plan for the London Borough of Southwark.

The Partnership will work together to produce Generic Action, Habitat Action and Species Action Plans for Southwark.

Problem Statement.

The issue to be addressed by this partnership is the production of a Local Biodiversity Action Plan. The plan is a key objective of the council and links with Regional and National Biodiversity objectives. This will determine management of biodiversity in the Borough of Southwark and include conservation, enhancement and promotion of biodiversity. There are a number of internal and external influences impacting on this partnership.

The corporate aims of the council need to be met when producing the Local Biodiversity Action Plan. These are making the borough greener, raising education standards, improving health and reducing poverty.

The Regional and National aims and legislation will impact on this Partnership and Plans.

Biodiversity can cover a matrix of disciplines and topics. It can be argued that biodiversity has relevance in education, health, economic well-being, community involvement and sustainability. The focus of this partnership will be influenced by this issue.

These objectives and the physical management of biodiversity need to be united. Having no designated budget, a demanding time scale and a historically vacant ecology officer post challenges this.

There are many different Council departments and external bodies that need to work together to realise the objective. The project's aim is to have the generic actions and the first round of Habitat and Species action plans published and on the web site by the end of October 2005.

Boundaries.

The boundaries that apply to this partnership are:

Time: Stage 1 produced by end of February 2006
Press: all press releases/comments must be passed by the council's communications officer before submission.

Scope: the plan will cover Actions for Biodiversity across the Borough of Southwark but will be an evolving document so not all habitats and species of nature importance will be covered in the first round of action plans.

Issues.

There are specific issues that need to be addressed, these are:

Addressing the management of habitats and species important to Southwark.

Producing a generic action plan, which will cover a broad range of issues.

Consultations: full consultation of internal and external bodies will be undertaken; once done there will be no time to consider further approaches.

Transparency: this partnership will have to be able to withstand public scrutiny.

Reporting: progress updates needs to be done by each member to keep to the time frame and objectives.

Outcomes.

The desired output of this partnership will be a Local Biodiversity Action Plan. This will consist of Generic actions, Habitat actions and Species actions.

Consultation will be undertaken with internal and external bodies.

Publication: the LBAP will be published both in hard copy and on the Southwark Council web site. Promotion of all members involved will result from this plan.

Launch: there will be a launch of the plan in Spring 2006.

Partnership members.

In no particular order

TRUE, LWT, Groundwork Southwark, Dulwich Estate, BOST, Centre for Wildlife Gardening and Southwark Council Departments (Planning Policy, Environment & Leisure, Education, Highways, Housing, Regeneration), and Southwark Environment Forum.

Appendix 2: Factors affecting habitats and species.

There are many factors which impact on the success or demise of natural habitats and the flora and fauna dependant on them. The factors mentioned here can be applied to specific habitats or species but are also relevant to a wide range of habitats and species and the other HAPs and SAPs in the Southwark Biodiversity Action Plan.

Factors affecting habitats

Skills

There is a need for training in ecologically sensitive management to counteract the impact of traditional maintenance regimes. Sympathetic management and increased knowledge of the flora and fauna is necessary to ensure that the right management practises are employed as standard. Paramount to this is contract staff training. People lacking even elementary horticultural skills and little understanding of nature conservation often carry out the majority of practical work. High staff turnover and use of agency staff can exacerbate the problem.

Wildlife areas often rely on unskilled volunteers to carry out tasks. Friends of groups and other community volunteers can contribute to the management and monitoring of conservation habitats with the right training.

Public perception of natural habitats.

The character of natural landscapes conflicts with historic park landscapes prevalent today. The high level of maintenance reduces habitats for wildlife, for example removing all the leaf litter affects invertebrate populations, which is linked to the reduction of bird populations.

Long grass is great for ecology but is also linked to neglect and is prone to accumulate litter. Shrubberies and woodlands may be associated in the public eye with feelings of insecurity, especially for women.

A partnership of formal and informal landscapes can exist together with natural areas existing away from the most important formal features. Even within formal areas, planting can provide good habitats for birds.

Peat use

The council, under new guidelines, purchases all bedding plants grown in peat-free compost. It should be noted that the quality of bedding plants is reduced as a result of this. The use of native and non native wild flowers planted in drifts may be the way to reduce the reliance on winter and summer bedding while still providing colour in the parks. This would also benefit invertebrates thus increasing the biodiversity of our parks. Peat use also applies to private gardens but this is an individual choice. By promoting organic and peat free gardening with the Centre for Wildlife Gardening, Southwark will highlight this issue.

Water body eutrophication

Ponds, lakes and streams are popular foci for wildlife. However, there are high levels of nutrients in many of our water features. High waterfowl numbers, bottom feeding fish and the public input of foodstuffs, exacerbates the problem. The fact that they are closed systems with hard landscaped margins often means that it is difficult to maintain an ecological balance ;this can lead to summer algal blooms and ultimately fish deaths. The water bodies within parks are included in the IPGMC (?????) and delivers daily

Visitor numbers

The value of woods, parks and open spaces as an amenity resource helps protect them but also degrades the delicate ecology. There are several impacts including erosion and compaction of the soil, the creation of desire lines, picking or trampling of wild flowers, and disturbance to nesting birds from dogs and people. Measures to contain damage has been used in some parks and woodlands; this can restrict access while still allowing the public to enjoy these spaces.

Inappropriate management.

Historical management of woodlands ensured their survival as it was linked to local industry. Coppicing and pollarding were traditional methods of retaining trees while ensuring a renewable timber resource. In modern times this management is rarely undertaken, which has resulted in the loss of traditional management and flora and fauna associated with it. Woodlands have been neglected and the character has been overrun by a few dominant species. Small-scale coppicing regimes could be introduced to encourage regeneration of open woodland parcels thus discouraging disturbance by the establishment of dense new growth.

Neglected parks and woodlands have resulted in their diminished community value. This has led to vandalism such as arson, dumping and graffiti in these sites; dog mess and litter have exasperated the problem. The problem of vandalism is not only restricted to neglected woodland.

Pests/disease.

Dutch Elm disease is the most notable recent impact on woodlands, and has caused structural and species change in our woodlands. There are other fungal diseases affecting alder trees and now oaks and willows. The Asian Longhorn Beetle and Grey Squirrels have damaged woodlands and, in the case of the latter, birds eggs. Crows in large numbers have also preyed on fledgling birds in wooded areas in parks such as Peckham Rye. Although these pests and diseases may harm forestry interests, much of this damage is natural and in not necessarily harmful to biodiversity.

Climate change

The effects of climate change pose long-term problems for British ecosystems. These effects may include reduced rainfall, increased storm events, vulnerability to new or increased prevalence of pests and diseases and reduced viability of some species.

Management style

Trends in management style have a profound effect on wildlife associated with gardens. Intensively managed gardens with lawns and hard surfacing support far fewer species than gardens with a range of habitats such as ponds, climbers, dead wood and shrubberies.

Planting

The choice of plant can dramatically influence a garden's wildlife value. Ivy, for example, provides roosting opportunities for birds and seeds and nectar as well. Some hybrid and cultivated plants offer little or no wildlife interest at all.

Lighting

The increase in security lighting affects nocturnal wildlife in gardens. Bats, night flying birds and other nocturnal mammals and insects may be affected. There is some research on light pollution and introduction of environmental areas, which seek to reduce light pollution, is practised in some areas.

Development

Garden habitat is defined as 'previously developed land', which make it a prime target for new development. Development or extensions encroach on to gardens reducing the size. There has been a trend to pave front gardens for off road parking, which has resulted in a loss of habitats.

Scale

The size of a garden and the extent to which it is connected with adjacent open land will greatly affect the range of wildlife using it; however even small gardens are potentially valuable for wildlife. Window boxes and hanging baskets may contribute even in a small way to species diversity.

Factor affecting Species

Loss of bat maternity roost sites in buildings or trees

Destruction and disturbance of habitat impact on diversity and density. This has occurred through lack of awareness and understanding of bats needs and the legislation protecting them.

Loss of feeding habitats.

Changes in land use can result in the loss of insect rich feeding habitats such as wetlands, woodlands and grassland. The loss of ponds and the presence of dense weed cover on water bodies is a contributory factor. Some bats require open water at least 3 metres wide to drink and feed. Private gardens have an important role to play because compost heaps can help redress this balance. Compost heaps provide many insects for bats to feed on.

Disturbance to bat commuting routes

Commuting routes for bats between the roosts and feeding sites can be broken by loss of habitat such as green corridors and by introduction of new features such as artificial lighting. Ensuring all new lighting in parks and around water bodies is **down** lighting can reduce this controversial issue.

Reduction of dead wood

Dead wood has traditionally been removed as part of the past intensive management of woodland, parks and open spaces. This practice still occurs today to achieve a tidy look. The need to retain dead wood is now better understood by parks managers and changes in woodland and park management has resulted in the retention of dead wood. Standing dead wood is retained in parks safety permitting.

Stump Grinding

Stump grinding is a major factor in the loss of stag beetle habitat. Projects in Peckham Rye Park by the Heritage Lottery Fund have advocated this practice when removing old trees. Stump grinding has also occurred in the housing estates around Sydenham Hill Wood. This practice is unnecessary in areas bordering woodland or parks.

Loss of habitat to urban development

Habitat loss occurred during the inter war years with the suburban expansion of London. The introduction of Green Belt curtailed this to some extent. Many open spaces have been developed, especially woodland, with the increased demand for housing. Development will continue to result in the loss of stag beetle habitat where breeding sites remain unrecorded.

The Heritage Lottery Fund restoration projects in Southwark's major parks has resulted in the removal of many trees, both alive and dead. This has impacted on the species in the short term.

The paving of front gardens is also a contributing factor.

Direct human impact

Adult stag beetles are attracted to warm surfaces such as tarmac or pavements. This makes them vulnerable to trampling or crushing by feet or traffic. They may also be mistaken as pests by gardeners and they are attractive to collectors.

Predation

Predators such as cats, foxes, crows, kestrels and others may have an adverse impact on stag beetles at the most vulnerable stages in their life cycle, when adults are seeking to mate and lay eggs. It has been suggested that the rise in magpie and carrion crow populations over the last decade may have a significant impact on the species.

Habitat Loss

The species decline in London mirrors the decline in damp meadows and pastures habitats over the last 50 years.

Land management

Mowing regimes on Southwark's housing land affect the plants growing there. Identifying and managing rare native plants while meeting the needs of the stakeholders requires co-operation between departments.

Appendix 3: Habitats, LNRs and Sites of Importance for Nature Conservation in Southwark and regional targets for habitats.

Table 1: List of Habitats in Southwark

Habitat	Approximate % of Southwark land Area
Woodland	4
Suburban back gardens	25
The Thames	4
Lakes ponds and Docks	1
Veteran trees	+
Naturally vegetated vacant land	1
Small communal open spaces	3
Railside vegetation	1
Large open spaces	8
Built development	20
Long grassland	1
Roads & car parking	20

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Table 1 has the habitats placed in approximate order of their recommended priority in terms of their importance to Southwark and Regional biodiversity and peoples enjoyment of it.

Analysing Table 1, there are 138 parks and open spaces covering 393 hectares, including play areas, playing fields, churchyards, cemeteries, woodland, riverside sites and dockland facilities including a 200-berth Marina.

There are 21 Parks within the borough that are judged to have ecological importance by the London Ecology Unit, ecological audit, 1995. This excludes 42 parks in the borough, these by their nature must provide some ecological importance and provide habitats of value.

LNR designation

The National Parks and Access to the Countryside Act 1949 gives local authorities the power to acquire, declare and manage Local Nature Reserves (LNRs). These are defined in Section 15 as land managed for the purpose of preserving flora, fauna or geological of physiographical features of special interest in the area, or to provide conditions for the study of flora and fauna and geological of physiographical features of special interest. Both of these criteria apply to the LNR's in Southwark.

Sites of Importance for Nature Conservation in Southwark.

The criteria used to grade sites, ranked sites in terms of their intrinsic value to wildlife and the ability of people to access green landscape.

Sites of Metropolitan Importance for Nature Conservation are those that contain the best examples of London's Habitats and contain rare species or are of particular significance within large areas of heavily built up London.

Table 2: Metropolitan Sites of Importance for Nature Conservation.

Site Name	Size ha	Key Habitat/species	Objectives
River Thames.	100.	Intertidal Mud, Waterfowl, Waders.	Increase niche habitats along banks.
Nunhead Cemetery, (LNR).	21.	Secondary Woodland, Grassland, Tawny Owl, Greater spotted woodpecker	Manage as woodland. Tackle invasive species.
Dulwich & Sydenham Hill Woods.(Sydenham Hill Wood is LNR).	28.	Ancient Woodland/Ponds, Oak trees, Hairy wood-rush, Bats	Enhance biodiversity. Create buffer zones on borders. Manage tunnel for Bats.
Forest Hill to New Cross Gate railway cutting.	0.1 In Southwark.	Woodland, Acid & Neutral grassland, Reed bed, Scrub	Encourage management for biodiversity.

Table 3: Borough Grade 1 Sites of Importance for Nature Conservation.

Site Name	Size ha	Key Habitats/ Species	Objectives
Lavender Pond Nature Park (LNR).	0.7	Standing water, Reedbeds, Carr, wet meadow, Reed bunting & Reed warbler, Red eyed damselfly	Manage for wildlife. Promote te LNR.
One Tree Hill.	6.8	Secondary woodland, Acid Grassland, Heath Grass, Compact Rush.	Declare LNR. Develop management with LWT.
Russia Dock Woodland & Stave Hill Ecological Park.	14	Woodland, Grassland, Wetland and scrub, Great crested Newt, Kingfisher.	Declare Stave Hill as LNR. Improve and restore ponds in RDW
Dulwich & Sydenham Hill Golf Course.	32	Woodland, Pond, Oak pollards, Acid grassland.	Improve biodiversity
Dulwich Upper Wood (LNR).	2.1	Ancient woodland & secondary woodland, Wood anemone, Ramsons, Fungi.	Develop visitor centre.
Camberwell Old Cemetery.	11.6	Grassland, Mature trees, Scrub, Black poplar.	Improve meadow, protect scrub and Black poplar.
Peckham Rye Park and Common.	45	Standing & running water, Woodland, Parkland, Musk stork's-bill, Watercress, Water figwort.	Improve woodland and meadow management Create new wildlife garden.
Dulwich Park.	28.8	Lake, parkland, Waterfowl, Bats	Manage boundaries for biodiversity

Site Name	Size ha	Key Habitats/ Species	Objectives
		Bats.	biodiversity.
Canada and Surrey Waters.	7.2	Standing water, Marginal, vegetation, Lesser reedmace, Damselflies.	Improve water quality through natural flora.
London Wildlife Garden Centre.	0.3	Ponds, wildflower plots, meadow, Common Frog, Smooth newt.	Promote community cohesion.

Table 4: Borough Grade II Sites of Importance for Nature Conservation.

Site Name	Size ha	Key Habitat/species	Objectives
Grove Park Cuttings and Peckham Rye to North Dulwich Railsides.	12	Secondary woodland, Roughland, Hawthorn, Ivy, Bramble.	Encourage management for biodiversity.
Sunray Gardens.	1.6	Pond, Parkland, Reedbed, Yellow iris, Coarse fish.	Restore reedbed. Improve water quality.
Camberwell New Cemetery, Honour Oak Crematorium and adjacent area.	19	Secondary woodland, Hedges, Mature trees, Common Lizard.	Manage boundaries for wildlife.
Countisbury House Lawns.	0.1	Grassland, Corky fruited water dropwort.	Protect and propagate rare flora.
Burgess Park.	47	Lake, grassland, young woodland, Bats, Waterfowl.	Review all wildlife areas.
Belair Park.	10.7	Lake, wet woodland, Mature trees, Gipsywort, Lesser pond sedge, Waterfowl.	Naturalise banks. Manage wildlife area, develop new nature site for education.
Sydenham Hill and West Dulwich Railsides.	10	Secondary woodland, roughland, Oak trees, Ash trees.	Encourage management for biodiversity.
Hitherwood.	0.4	Ancient woodland, Oak trees, Holly, Bluebell.	Encourage management for biodiversity.
James Allen's School Botany Garden.	0.7	Secondary woodland, Oak, Grater spotted woodpecker.	Implement educational monitoring program.
Aquarius Golf Course.	2.4	Neutral grassland, Grey sedge.	Encourage management for biodiversity.
Dulwich Mill Pond	0.9	Standing water, Yellow iris.	Improve water quality.
Walworth Garden Farm.	0.3	Pond, Horticultural beds	Encourage community cohesion.

Site Name	Size ha	Key Habitat/species	Objectives
Surrey Docks Farm.	0.8	Pond, hedge, Paddocks	Encourage community cohesion.
Gipsy Hill Railway Cutting.	1.3	Woodland, Oak trees	Encourage management for biodiversity.
Greenland Dock & St George's Wharf.	12	Standing water, Waterfowl	Improve water quality.
Lettsom Gardens.	0.5	Secondary woodland, Grassland, Mulberry, Wild angelica	Encourage management for biodiversity.
Dawson's Hill.	2.4	Neutral Grassland, Lords-and –Ladies, Hedgehog, Bats	Develop wildlife habitats with Friends group.
Brenchley Gardens.	2.9	Woodland, Grassland, Great horsetail, pollarded Ash, Cowslip	Maintain wildlife corridor.
South Bermondsey Railway Embankments.	2.6	Woodland, Grassland, Scrub, Bermuda-grass.	Encourage management for biodiversity.
Southwark Park.	25	Lake, Wildflower meadow, Parkland, Spotted flycatchers, Waterfowl, Bats.	Develop wildlife garden for education. Create meadows.
Nunhead Railway Embankments.	4.7	Woodland, Grassland, Sycamore, Ash, Wild cherry.	Encourage management for biodiversity.

Table 5: Local Sites of Importance for Nature Conservation.

Site Name	Size ha	Key Habitat/species	Objectives
Leathermarket Gardens.	1.2	Parkland, Garden birds	Encourage management for biodiversity.
Dickens Square Park.	1.4	Woodland, Parkland, Roughland, Jay, Green woodpecker, Black cap warbler.	Manage for Biodiversity.
Benhill Road Nature Garden.	0.1	Roughland.	Review site
Lucas Gardens.	1.7	Parkland, Mature trees.	Create wildlife areas
Plough Lane Pond	0.005	Pond, hedge, Smooth newt, Common frog.	Improve water quality.
Victory Park & Elba Place Nature Garden	0.4	Grassland, Parkland, Garden birds	Develop wildlife site.

Site Name	Size ha	Key Habitat/species	Objectives
Place Nature Garden.		birds.	
Goldsmith Road Nature Garden.	0.2	Grassland, Scrub, Garden birds.	Encourage community cohesion, and education.
Surrey Square.	1.3	Parkland.	Create wildlife areas.
Geraldine Mary Harmsworth Park.	5.7	Parkland, Hairy buttercup, White mulberry.	Encourage management for biodiversity.
Bird in Bush Park.	0.6	Parkland, Wildlife area, Garden birds.	Create wildlife areas.
Consort Park.	0.4	Neutral grassland.	Create wildlife areas
Northfield House Wildlife Garden.	0.2	Neutral grassland.	Encourage community cohesion.
St Mary's Garden Rotherhithe.	0.4	Parkland, Nectar plants	Encourage management for biodiversity.
St Mary Magdalene Churchyard.	0.7	Parkland, hedge, Blackthorn, Green woodpecker.	Replace shrubs along boundary.
Bellenden Tree Nursery.	0.3	Tree Nursery, pond.	Encourage community cohesion.
Dog Kennel Hill.	0.9	Woodland, Parkland.	Improve diversity of site
Nairne Grove Nature Garden.	0.2	Grassland, pond, scrub, Common frog.	Encourage community cohesion.
Aspinden Road Nature Garden.	0.1	Woodland, pond, Common frog	Develop community volunteers.
Galleywall Road Nature Garden.	0.1	Grassland, woodland, pond, Oak, Flag iris.	Encourage community cohesion.
McDermott Road Nature Garden.	0.1	Nature garden, Garden birds.	Encourage community cohesion.
Varcoe Road Nature Garden.	0.2	Roughland, woodland.	Encourage management for biodiversity.
Surrey Gardens.	1.7	Parkland.	Encourage management for biodiversity.
Tabard Gardens.	1.0	Scrubland, Chalk meadow.	Encourage management for biodiversity.
Herne Hill Stadium Meadow.	2	Damp neutral grassland, Woodland.	Encourage management for biodiversity.
Snowfields Primary School Nature	0.1.	Grassland.	Encourage management for biodiversity.

Site Name	Size ha	Key Habitat/species	Objectives
Garden.			biodiversity.

Strategic targets for priority habitats in London

Introduction

This report is describes the London Biodiversity Partnership's recommended targets for priority habitats, and the broad areas where it is appropriate that these habitats are preserved or increased in London.

The Planning Policy Statement on Biodiversity and Geological Conservation (PPS9) issued in August 2005 introduced new national policies to be taken into account by the Mayor of London in the London Plan, and by London Boroughs in the preparation of local development documents. Sections 2 and 3 of the Policy Statement deal with the London Plan and sections 4 and 5 with local development documents:

- Section 2 requires the Mayor to liaise closely with the London Biodiversity Partnership, Natural England and the Environment Agency to identify the current regional and sub-regional distribution of priority habitats and species, internationally and nationally designated areas, and broad areas for habitat restoration and re-creation.
- Section 3 requires the London Plan to do five things for biodiversity, four of which are already in the London Plan[1]. The fifth item is to "include targets for the restoration and re-creation of priority habitats and the recovery of priority species populations, linked to national goals".
- Section 4 requires local London Boroughs to ensure that policies in local development documents reflect, among other things, regional priorities and objectives.
- Section 5(ii) requires London Boroughs to identify any areas or sites for the restoration or creation of new priority habitats which contribute to regional targets, and support this restoration or creation through appropriate policies.

This document is the London Biodiversity Partnership's adopted targets as required by section 3(iv), and broad areas for habitat restoration and re-creation required by section 2. Specific targets for species[2] and a translation of the targets down to borough level are left till later.

[1] Incorporate biodiversity objectives; address regional, sub-regional and cross-boundary issues in relation to habitats and species through criteria based policies; include policies to conserve and enhance biodiversity at the regional and sub-regional levels; and identify suitable indicators for monitoring biodiversity.

[2] The London Plan policy for biodiversity provides an adequate policy and the Best Practice Guide lists the species, but there are not yet any explicit targets adopted for these.

Summary statement
Broad areas are identified where habitat restoration and re-creation would be appropriate for each of the London priority habitats. Targets for 2015 are identified for each priority habitat. Targets for increase by 2025 are three times those for 2015.

Priority habitat type	Broad areas	Target to conserve extent (ha)	Target to increase by 2015 (ha)
Coastal and floodplain grazing marsh	Wet soils	850	10
Chalk grassland	Chalk soils	350	25
Acid grassland	Acid soils and wet acid soils	1,300	20
Heathland	Acid soils and wet acid soils	100	30
Reedbeds	Wet soils	50	10
Open landscapes with ancient/old trees	-	2000	20 (initiate expansion)
Woodland	Clay soils and wet soils	12,800, of which 350 is wet	20, of which 5 is wet
Meadows and pastures	Clay soils	11,000 with 600 of better habitat	20
Tidal Thames	-	2,300	1 saltmarsh and/or mudflat
Rivers and streams	Wet soils	Unknown	Restore 15 km
Rich and ancient hedgerows	-	Unknown, but a target of no loss	-
Ponds, lakes and reservoirs	-	1744	-
Canals	-	260	-
Wastelands	-	2000	10 to be included in new developments

The priority habitats
In identifying priority habitats for these purposes, we begin with the list of national priority habitats[3] which occur in London, almost all of which have England targets[4]. The link to national goals normally requires these to have

[3] These are detailed on the UK Bidiversity Action Plan website www.ukbap.org.uk/habitats.aspx, with minor amendment and additions in the list of habitats and species of principal importance for the conservation of biological diversity in England. The latter was issued by the Secretary of State in October 2002, under section 74(2) of the Countryside and Rights of Way Act 2000. http://www.defra.gov.uk/WILDLIFE-COUNTRYSIDE/cl/habitats/habitats-list.pdf.
[4] The current targets are also on the UK BAP website www.ukbap.org.uk/GenPageText.aspx?id=98, however there is a review of these targets in progress

targets for London. In the list below, we start with those London priorities that correspond in a one to one way with the national priorities. These are followed by those for which the London priority embraces the national one but is defined more widely. Finally there are some London priorities for which there is no national priority. For most of these we do not recommend a London target.

The UK priority habitats are grouped together with other habitats into broad habitat types. To assist the reader, the UK broad habitat type corresponding to each London priority habitat is also given below.

The targets

England targets are of three kinds: maintain habitat extent, expand habitat extent, and improve habitat quality, the latter two sometimes having target dates (often 2010, 2015 and 2020). The Mayor's target for wildlife habitat is no net loss[5], equivalent to the national "maintain", but "expand" targets are appropriate for most priority habitats. The London targets are for 2015 to correspond to a year employed nationally, and allow time for proposals to be identified in Local Development Documents after the adoption of the revised London Plan. There is an aspirational target for the period 2015 to 2025 for a further increment twice that proposed up to 2015. This should be reviewed to match future review of the London Plan.

Improvements to habitat quality, rather than increases in areal extent, are the main thrust of the London Biodiversity Action Plan. These should be secured through development planning wherever possible. However, we do not recommend specific targets to improve habitat quality in this context, as quality is difficult to measure objectively and even more difficult to assure at the time that a development proposal is considered.

Where there is a one-to-one relationship between the London and national priorities, it would be sensible generally to obtain a London target by analogy with England. If the target is for England to increase the resource by 10%, so should we seek to increase the London resource by 10%. Where the relationship is not one-to-one, or the size of the resource is poorly known, we estimate the appropriate increase with the best information available. The national extent is obtained from the proposed "maintain" target on the UK BAP website and the London extent is from the London Biodiversity Action Plan audit, unless indicated otherwise. London is 1.2% of England, but the individual habitat types can be under or over-represented in London in comparison with this figure.

There is also a need to take climate change adaptation into account. This would question whether there should be a target to increase those habitats where the biotic community dominants are long-lived species that may not thrive in the London area beyond mid century. This includes beech woodland,

http://www.ukbap.org.uk/Library/BRIG/TargetsReview06/TargetsReview_17_03_06.doc due for adoption in August 2006. This updates the England figures on the extent of some habitats, and includes many minor, and a few major changes to targets. These are taken into account here, but may need reconsideration after the national exercise is completed.

[5] Proposal 70 of the Biodiversity Strategy www.london.gov.uk/mayor/strategies/biodiversity/index.jsp

and possibly some woodland types where the two birch species are dominant[6].

Broad areas for habitat restoration and re-creation.

The restoration and re-creation of wildlife habitat is possible wherever there is open space in London. It is not appropriate for the London Plan to identify specific areas for this, as the Planning Statement makes this the role of the London Boroughs. However, it is possible to identify broad areas appropriate to each priority habitat from an examination of the existing distribution of habitats in London and of the local conditions that lend themselves to one or more habitat types (generally the nature of the soil, including its fertility, soil reaction and water regime). In theory this might be done through English Nature's "Natural Areas", but unfortunately these do not serve London very well. Fortuitously, however, detailed zones have been prepared for the London Plan subregional frameworks, which allow broad areas to be defined. For some of the priority habitats there are other documents that have considered priorities for restoration and re-creation in London and these are taken into account where appropriate. Notable here are the partnership's heathland restoration strategy and the Environment Agency's two river restoration strategies.
To promote the movement of species, the Habitats Regulations[7] encourage the management of features of the landscape which are of major importance or wild flora and fauna. Within the broad areas there is scope to consider spatial provision which may do this, by providing corridors, stepping stones or buffering habitat, and also whether the new areas should be many and small or few and large. Whilst attention to such details is encouraged, this should not compromise the achievement of the targets, as the total amount and quality of any priority habitat in the landscape, rather than its precise spatial distribution, is the most important consideration.

Grazing marsh and floodplain grassland
*England***:** priority habitat was "grazing marsh and floodplain grassland" and is proposed to be revised to "coastal and floodplain grazing marsh", broad habitat "improved grassland", priority habitat extent 170,000 ha and target to extend by a further 2,200 ha, proposed to be revised down to 1250 ha.

London: extent 850 ha, 0.5% of the England extent.

London targets: maintain extent and increase by 10 ha.

Status and distribution: More than half of the existing extent is in saline grazing marsh on alluvial soils either side of the lower Thames at Rainham, Crayford, Erith and a few other places. The rest is in many smaller areas of freshwater floodplain grassland notably at Syon Park and also in the valleys of many tributary rivers. The broad area is defined around London's seasonally wet soils.

[6] Climate change: impacts on UK Forests, Forestry Commission Bulletin 125.
[7] Conservation (Natural Habitats &c.) Regulations 1994, regulation 37

Chalk grassland
England: priority habitat "lowland calcareous grassland", broad habitat "calcareous grassland", priority habitat extent 38,687 ha and target to increase by a further 970 ha. However, the consultation for target revision suggests 8426 ha.

London: extent 350 ha, 0.9% of the England extent.

London targets: maintain extent and increase by 25 ha.

Status and distribution: Small areas in the north-west of L.B Hillingdon, but most in a wide band across south and west London stretching from Cuddington to Orpington. The broad area is defined around London's chalk soils which, unlike the other broad areas, are very rarely wet. Whilst the target for increase is considerably larger than London's share of the existing England target, the proposed new target would suggest a 75ha London target. This was not considered feasible.

Acid grassland
England: priority habitat "lowland dry acid grassland", broad habitat "acid grasslands", priority habitat extent 20,142 ha and target to increase by a further 250 ha (proposed to be revised to 276 ha).

London: extent 1,300 ha, 6.5% of the England extent.

London targets: maintain extent and increase by 20 ha.

Status and distribution: Widely scattered small areas largely on common land, or where there was once such land. Wet acid grassland is not common in London, but included in the target. The broad area is defined around sand and gravel soils including Pleistocene terraces, Bagshot, Claygate, Lambeth Group and Thanet Formations, with wet acid grassland where the soils are seasonally wet.

Heathland
England: priority habitat "lowland heathland", broad habitat "dwarf scrub heath", priority habitat extent 58,000 ha and target to increase by a further 5,400 ha (proposed to be revised to 6,000 ha).

London: extent 100 ha, 0.3% of the England extent.

London targets: maintain extent and increase by 30 ha.

Status and distribution: Widely scattered but very small remnant areas largely on common land, or where there was once such land. The broad area is identical to that for acid grassland, defined around sand and gravel soils including Pleistocene terraces, Bagshot, Claygate, Lambeth Group and Thanet Formations. Dry heathland is appropriate in well-drained soils, wet heathland and other wet acid habitats on seasonally wet soils where this broad area overlaps the sands and gravels. The London Heathland Restoration Strategy has considered the locations for restoration in detail.

Reedbeds
England: priority habitat "wet reedbeds", broad habitat "Fen, marsh and swamp", priority habitat extent 5,200 ha and current target to increase by a further 1000 ha, but consultation target for 2015 of 1715 ha.

London: extent 50 ha, 1% of the England extent.

London targets: maintain extent and increase by 10 ha.

Status and distribution: Most of the resource is beside the Thames and its eastern tributaries, at the Wetland Centre and smaller amounts fringing artificial water bodies. The broad area is identified around the seasonally wet soils.

Open landscapes with ancient/old trees
England: priority habitat "wood-pasture and parkland", broad habitat "Boadleaved, mixed and yew woodlands", priority habitat extent 22,000 ha and target to increase by a further 250 ha. The revision consultation deals with these in terms of the number of sites rather than areal extent.

London: extent 2000 ha, 9.1% of the England extent.

London targets: maintain extent and initiate expansion of 20 ha.

Status and distribution: Difficult to audit, and London has taken a broader view of this habitat type than is done nationally, hence the somewhat smaller than proportionate target. Half of the resource is in Richmond Park and the rest widely scattered across London. Given that the habitat depends upon the age of the trees, the target is to initiate the expansion through ensuring trees are allowed to grow old. No broad area is identified for this habitat, but it is likely that most opportunities will be on clay soils.

Woodland
England: existing priority habitats "wet woodland" & "lowland beech and yew woodland", broad habitat "Broadleaved, mixed and yew woodlands", priority extents 19,800 & 27,000 ha and targets to increase by a further 1,114 & 1,350 ha. The millennium woodland inventory estimates there are 724,000 ha of the broad habitat in England.

The consultation on revised targets subsumes the two priority habitats into a new "native woodland", which approximates to the broad habitat, but the extent is revised to 535,000 ha, suggesting that some mixed woods have been excluded. The consultation target is to expand the non-ancient native woodland sector by 10%.

London: woodland extent 12,800 ha[8], 1.8% of the broad habitat England extent, of which approximately 700 ha is beech and yew[9] (2.8% of the England extent) and 350 ha wet[7] (1.7% of the England extent).

[8] Connecting Londoners with Trees and Woodlands. A tree and woodland framework for London, March 2006. www.london.gov.uk/mayor/environment/forest/index.jsp

It could be argued that a target for expansion might over-rule the "right place, right tree" principle established in the Mayor's Tree and Woodland Framework. However, it should be that sites can be found that meet the principle. Nevertheless, the national target percentage seems far too ambitious for London.

London targets: maintain current extent and also increase by 20 ha of new woodland, of which 5 ha should be wet woodland.

Status and distribution: London has little beech and yew woodland and this habitat is not expected to be viable in London with currently predicted climate change beyond 2050. The London target for this type would have been 35 ha but, given its poor long-term prospect, no target is recommended. Wet woodland is perhaps even less common. It is found in the river floodplains and within other woodlands, here mainly on the clays. Given the protection afforded to ancient woodland by PPS9 and the priority given to woodland conservation by the London Biodiversity Partnership and the Mayor in his Tree and Woodland Framework[6], there should be a target for the broad habitat in London. This is also proposed in the revision of national targets. The audit shows that the other woodland types to be included in London are mainly oak, hornbeam and ash woodlands and woods are found predominantly on clay soils. Two broad areas are identified. For wet woodland this is the seasonally wet soils. For the drier woods the broad area is based upon clay soils. Whilst there are a few existing good woodlands on chalk, sand or gravel soils, new woodlands there often displace other valued habitats, so these broad areas are not generally considered suitable for new planting.

Meadows and pastures

England: priority habitat "lowland meadows", broad habitat "neutral grassland", broad habitat extent 600,000 ha, lowland meadow 7,282 ha and target to increase lowland meadows by a further 230 ha (proposed for revision to 256 ha).

London: broad habitat extent 11,000 ha, 1.8% of the England extent, the better sites 600 ha, 7% of the national priority habitat.

London targets: maintain broad habitat extent and expand by 20 ha.

Status and distribution: Both the broad habitat and the better sites are difficult to audit, as the resource is scattered and value can be obscured by mowing. Much of the resource is in outer London. Many of the better sites are on damp clay soils in outer north-west London[10] and these are defined more broadly than the national priority habitat, hence the disproportionate percentage in London. As with woodland, the broad area is defined around clay soils, so it is important that any existing value for meadows and pastures is considered before any tree planting is proposed.

[9] A very approximate figure, and likely an overestimate, obtained by applying the estimate in Sites of Metropolitan Importance in the audit to London as a whole.

[10] *"London's meadows and pastures (neutral grassland)"*. Ecology handbook 8, London Ecology Unit. Since that handbook a significant additional site is Mordon Cemetery and a scattering of other smaller places have been given Metropolitan Importance for their neutral grasslands.

Tidal Thames
England: priority habitats are "coastal saltmarsh", "mudflats" and "sheltered muddy gravels" broad habitats are "littoral sediment" and "rivers and streams", the extent of saltmarsh is 32,500 ha and of mudflats is 206,900 ha. The proposed England target in the consultation is 0.7% expansion.

London: broad habitat extent 2,300 ha.

London target: increase the saltmarsh and/or mudflat by 1 ha.

Status and distribution: The habitat includes the whole of the Thames in London and the tidal lower reaches of tributaries. Some small incursions into the river are difficult to resist and opportunities to increase the habitat are few, so the target is ambitious.

Rivers and streams
England: priority habitat "chalk rivers", broad habitat "rivers and streams", extent of chalk rivers is 161 ha.

London: London has some 33 km (16 km in the Cray, 6 km in the upper Wandle and 11 km in the northern Colne systems) classified as chalk river by the UK Biodiversity Action Plan Steering Group and some 600 km of rivers in total.

London targets: maintain extent and restore 15km.

Status and distribution: The inventory of London's chalk rivers does not appear to be very accurate, as the maps include some reaches that have quite poor water quality and omit others which are nearer to being chalk rivers. Apart from this, there is much scope for naturalising stretches of river and improving river water quality in both chalk and other waters, see the Environment Agency's two River Restoration Strategies. The Environment Agency agrees that the target should relate to rivers in general, rather than to chalk rivers. The broad area is that part of the seasonally wet soils away from the Thames.

Hedgerows
England: There is a national priority for "ancient and/or species rich hedgerows", included in the broad habitat "boundary and linear features", with an estimated extent of 558,150 km and a target for expansion of 1.1% in the consultation for revision. This habitat is not a priority in London, and there has been no survey employing the recognised methodology for identifying national priority hedgerows, but the extent of the national priority will be very small here[11]. Nevertheless, the existence of a national priority and target requires one for London.

London Target: no loss.

[11] The hedgerows habitat statement in the London Biodiversity Action Plan has an audit of native-species hedgerows (considerably wider than the national priority criteria) of 705 km, about 0.1% of the national priority habitat extent

Status and distribution: The audit, using a wider definition, found native hedgerows predominantly in just four outer boroughs, Havering, Barnet, Hillingdon and Bromley, mainly on clay soils. No broad area is appropriate for national priority hedgerows, as they cannot be created, but it is important that losses are resisted and proposals for new tree planting incorporate existing hedgerow value.

Ponds, lakes and reservoirs

England: The national priority habitats are "eutrophic standing waters" and "mesotrophic lakes" with extents of 3917 ha and 644 ha respectively and no target for expansion. The broad habitat is "standing open water and canals" (see below).

London: The audit found a London extent of 1744 ha.

London target: maintain extent.

Status and distribution: The audit found most of the standing water to be in the Lea and Colne Valley boroughs with very little in central London. No broad area is appropriate, as there is no target to increase. The London action plan is in preparation. Whilst it is not clear just which London water bodies, if any, fall within the national priority habitats, it seems appropriate to adopt the national target: to maintain the existing extent only.

Canals

Canals are a London priority habitat, with no equivalent national priority. They are included in the broad habitat "standing open water and canals". The Action Plan gives a total of 80 km of canal covering an area of about 260 ha. A target to increase would seem unrealistic, so:

London Target: maintain extent.

Status and distribution: The action plan gives the distribution in terms of the 15 London Boroughs which have canals, all of which are north of the Thames and in, or west of, the Lea Valley. Without a target for an increase, no broad area is needed.

Wastelands

London: Wasteland habitats are a London priority habitat with no equivalent national priority, nor estimate of the national extent. London's wasteland habitats are estimated to be very approximately 2000 ha in extent[12].

London target: Incorporate 10 ha of wasteland habitat into new developments and public spaces.

Wasteland habitats can go through a stage where there are many wild flowers, which is valuable for the uncommon invertebrates and plants closely

[12] Given their turnover, wasteland habitat audit is difficult. Recent work by Buglife in the London East Thames corridor (perhaps employing a wider definition of wastelands than here) suggests that there are very approximately 2000ha of wasteland in London.

associated with the "Thames terrace grasslands". In some cases this stage lasts for decades. The value tends to change and eventually decline as this vegetation is displaced by grassland, scrub and woodland (when the habitat is counted under the appropriate habitat above). The conservation of wasteland habitats and species often conflicts with Government policies prioritising the redevelopment of post-industrial or 'brownfield' land, but it is important that their London priority status is reflected in a deliverable target. The adopted target should assist with the incorporation of these habitat types within the design of new developments and public spaces, as has already been achieved at Gillespie and Wandle Valley Nature Parks. Green roofs can also offer the potential to create wasteland habitats in urban areas. Without a target to increase the resource, and given the unpredictability of the natural development of high value wasteland, no broad area is relevant to this priority habitat.

Habitats with no recommended target

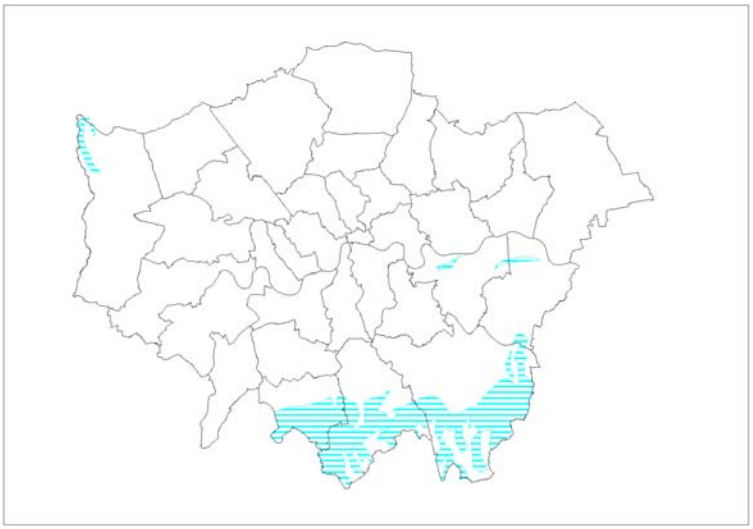
There is a national priority for **cereal field margins**, apparently widened in the consultation on targets to "**arable margins**", and included in the "arable and horticultural" broad habitat. Arable margins have a national extent of 37,134 ha and a draft target for expansion by 2015 of 69378 ha. Whilst there are doubtless many of these in London, they are not a London priority, nor is there any audit of their extent and action is much more likely through agri-environment schemes than planning, so no London target is proposed.

A further national priority is for **purple moor grass and rush pasture,** a poorly-defined habitat with a predominantly western distribution in the UK, included in the broad habitat "fen, marsh and swamp". The national extent is 21,544 ha with a draft target for a further 151 ha by 2015. If any occurs in London it would have been included in the acid grasslands or "wet marshy grasslands" of the audit of "marshland". There is an estimated 126 ha of the latter in London. It is not a London priority, and indeed the species-rich wet grasslands included in the national priority may not even occur in London, so no target is proposed separate from the wet acid grasslands (see above).

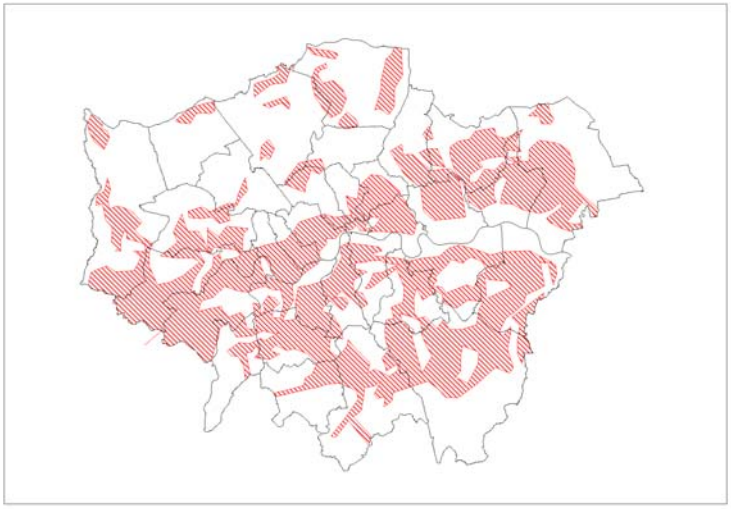
Four further London priority "habitats" are also not national priorities: **churchyards and cemeteries; private gardens; railsides; and parks and green spaces.** Here the interest is dispersed across a large number of individual areas, and features within wider areas defined more by land use than habitat, and the progress is made mainly through enhancement rather than increases in area. No target seems appropriate.

Broad Areas

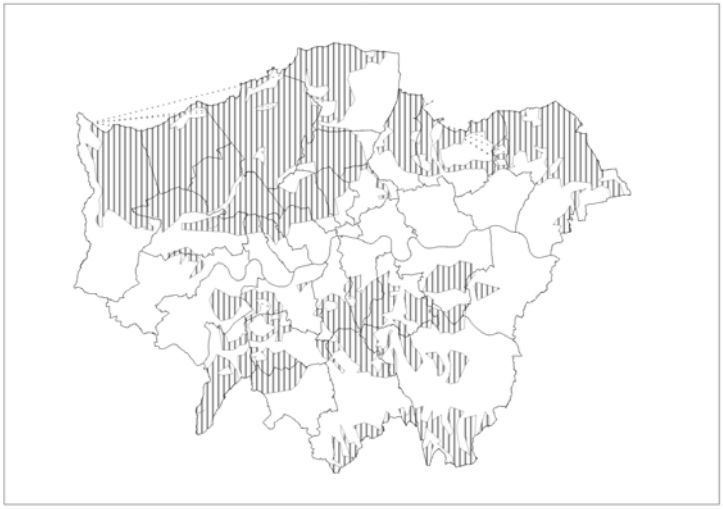
These are based around the soil reaction, particle size and water regime



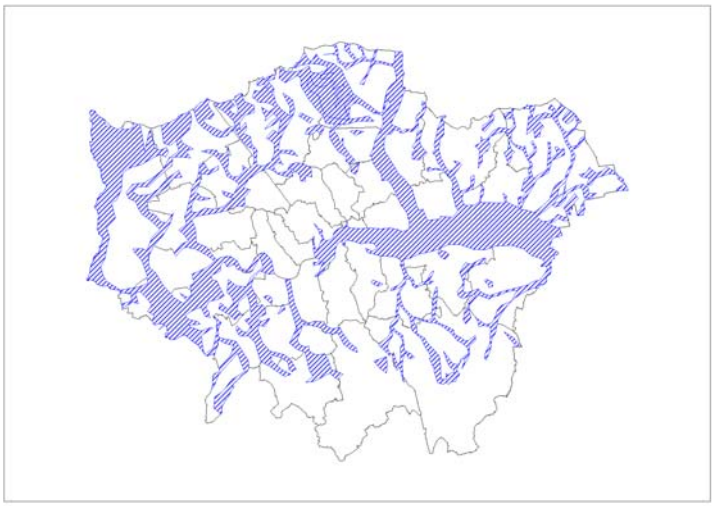
Chalk soils



Acid soils



Clay soils



Seasonally wet soils

Appendix 4: Ecological Issues

Dogs

Dog waste is a public health issue. Actions to zone dog areas lead to coarse vegetation in these areas reflecting the nutrient enriched soil. This can be a poor wildlife habitat. Where there are no restrictions, dogs off leads can disturb wildlife particularly where ground-nesting birds occur. Dogs have also been encouraged to maul trees which can result in 'ring barking' of trees or damage to their branches. Conversely the dog walkers can ensure an area is well used thus improving security.

Habitat loss

Due to pressures on land habitats such as scrub, ponds and woodland (particularly secondary woodland) has been lost to development.. Some of our smaller pocket sites have been cleared due to pressure to open up land for recreation and because of the imposing nature of these often-dense woodlands. Scrub dominated by trees is also being lost; these areas are often viewed as wasteland that attracts litter and dumping, and are seen as symptomatic of urban neglect.

Many open spaces have been developed with the increased demand for housing. Development will continue to result in the loss of habitat. The trend in paving of front gardens is a contributing factor to habitat loss. The species most affected are:

- Birds
- Stag Beetle
- Bats
- Amphibians

Pesticide use

Pesticide use is another issue of concern. The council produced a Pesticide Reduction Strategy in 1996, which prohibited the use of pesticides in wildlife and conservation areas. Agencies such as English Nature and the Woodland Trust allow targeted use in specific areas to control invasive species or to preserve historic landscapes and structures. The Pesticide Strategy is out of date and was never adopted by the Council. A revision of this strategy and adoption by the council would address this issue and can be included in the BAP. This would link to the invasive species issues as both are interconnected.

Invasive species

There is increasing concern about non-native and invasive species. Japanese Knotweed *Fallopia japonica* probably poses the greatest threat to wildlife areas within Southwark. This is because it has often been introduced to these areas through dumping. Because of the non-intensive nature of wildlife habitat management the weed has spread unchecked. The current legislation does not require landowners to destroy the weed, which can crowd out all other plants on a site. The most effective method of control is by applying herbicide that goes against established wildlife habitat management techniques. A statement about this weed and other invasive species will be introduced into the BAP as part of Round Two. The other species include Canada Goose, Ruddy Duck, Giant Hogweed, Himalayan Balsam, Parrot's Feather and Terrapins. This list mentions just some of the species of concern to native British wildlife.

Problem species in Southwark.

Table 1, Problem species in Southwark.

Species	Why they are a problem
Japanese knotweed	Highly invasive, causes structural damage, suppresses local flora and fauna.
Giant hog weed	Highly invasive, health hazard, suppresses local flora and fauna.
Spear thistle	Invasive, Notifiable weed in Weeds Act 1959.
Terrapins	Voracious predator causes decline in native amphibians. Long lived.
Grey Squirrel	Damages trees and woods by bark stripping. Predates birds nests.
Parrots feather (Aquatic plant)	Highly invasive, chokes ponds and water bodies.
Feral pigeons	Compete with other species for food, damage to building
Canada goose	Causes eutrophication of fresh water, strip banks and marginal vegetation.
Australian swamp stonecrop	Highly invasive, suppresses local flora and fauna.
Broad-leaved dock	Invasive, Notifyable on Weeds Act 1959.
Creeping or field thistle	Invasive, Notifyable on Weeds Act 1959.
Chinese mitten crab	Invasive. Causes habitat modification to river banks.
Ruddy Duck	Introgression with native species.

Please note this list is not exhaustive there may be species not listed that are becoming increasingly a problem such as Ring-necked parakeet.

Appendix 5: London Bat Audit.

London Bat Audit.

Species UK Status London Status Notes.

Greater horseshoe bat *Rhinolophus ferrumequinum*
Endangered nationally. Extinct in London.
Last Greater London record from Oxleas Wood in 1953.

Lesser horseshoe bat *Rhinolophus hipposideros*
Endangered nationally. Extinct in London.
Last Greater London record from Abbey Wood (Woolwich) in 1952-3.

Whiskered bat *Myotis mystacinus*
Vulnerable nationally. Rare in London.

Brandt's bat *Myotis brandtii*
Vulnerable nationally. Rare in London.
Due to difficulty in separation, these are considered together. Found in small numbers in outer London Boroughs such as Hillingdon, Richmond, Bexley and Bromley.

Natterer's bat *Myotis nattereri*
Vulnerable nationally. Scarce in London.
Relatively few records in Greater London. Most central location is Highgate Wood and Hampstead Heath, otherwise Richmond and Hounslow and other outer London Boroughs.

Daubenton's bat *Myotis daubentoni*
Not Threatened nationally. Frequent in certain areas of London.
Relatively common and strongly associated with ponds, lakes & rivers. Roosts in trees have been found on Wimbledon Common and Ruislip Woods, and another is believed to be in Crystal Palace Park.

Serotine *Eptesicus serotinus*
Vulnerable nationally. Rare in London.
Serotines are found in outer London Boroughs especially Bromley, Havering, Sutton and Richmond. Roosts are known from Bromley and Teddington, and are suspected in Sutton.

Noctule *Nyctalus noctula*
Vulnerable nationally. Widespread in London.
Regularly recorded throughout Greater London, but their high mobility may give a false perception of status; in fact there are indications of a rapid decline locally. A number of tree roosts have been found at sites including Crystal Palace Park, Regents Park and Ruislip Wood.

Leisler's bat *Nyctalus leisleri*
Vulnerable nationally. Scarce in London.
A few Leisler's bats have been recorded in the Greater London area, and the species appears to be most frequent in the east. A roost was found in the Aveley area just outside Greater London in 1987; two dead bats were found in Highgate Woods in 1986; and a female and infant bat were recovered in Bexley in 2003.

Common pipistrelle *Pipistrellus pipistrellus*
Not Threatened nationally. Common in London.

Soprano pipistrelle *Pipistrellus pygmaeus*
Not Threatened nationally. Common in London.

Recently split into two species, these pipistrelles are by far the most common bats in the UK and both species are widespread in Greater London.

Nathusius's pipistrelle *Pipistrellus nathusii*
Rare nationally. Rare in London.
Only recently confirmed as a UK breeding species. There are bat detector records from Lesnes Abbey Woods, Chislehurst Ponds and the Wetland Centre at Barnes. One was found in the City in 1989, and the species is now regular in bat boxes in Hounslow.

Brown long-eared bat *Plecotus auritus*
Not Threatened nationally. Scarce in London.
Brown long-eared bats are fairly secretive and so are probably under-recorded in Greater London. Roosts are known from Bexley, Bromley, Hillingdon, Wandsworth, Kensington & Chelsea, Barnet, Richmond.

Data Limitations
This audit is based on data from the London Bat Project collected in the mid-1980s, as well as that collected since by the London Bat Group and is therefore not systematic. This audit is the best possible understanding of the status of bats in London that can currently be realised by the London Bat Group.

In general, every borough will have bats present, as even in the inner boroughs there are usually some areas of suitable habitat that can provide feeding habitat for small numbers of at least the common pipistrelle species. In general, the outer boroughs with larger areas of more suitable habitat should be expected to have higher numbers of bats and a greater diversity of species.