



NATURE
CONSERVATION
STRATEGY
for
Birmingham



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Prepared by
Birmingham City Council and
Land Care Associates (LCA) Ltd

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FOREWORD



COUNCILLOR JOHN CHAPMAN, Chairman
Nature Conservation Policy Group.

A healthy natural environment is important to everyone. Not only is it essential for the well-being and enjoyment of our generation; we know that this is part of the heritage which we hold in trust, to hand on at least undamaged, and wherever possible improved, to future generations.

Even in a city as densely built up as ours, there is a surprisingly rich variety of natural open spaces and wildlife. This includes the sometimes rare but often more common habitats and species of plants and animals. All make up a rich and valuable diversity to be cherished in its own right and to be enjoyed by all.

This Nature Conservation Strategy provides a vision for the future.

For the first time, a framework has been written to guide the conservation and enhancement of our natural heritage, and to extend our understanding of plants, animals and other living things wherever they are found in this city.

Much has already been done. The Strategy builds on this to help provide direction not only for the City Council but others as well - we all have a part to play.

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1. INTRODUCTION

1.1 PURPOSE AND STATUS OF THE STRATEGY

1.1.1 The Strategy is both a policy and an action document. It sets out to provide comprehensive advice and direction regarding Birmingham's nature conservation resource and practical guidelines for action. Protection, management and enhancement of the resource are covered but the Strategy is as much about people as about wildlife. It addresses the social value of nature and makes recommendations about access, promotion and its value for education. The Strategy is set firmly within the context of the statutory land use policies set out in The Birmingham Plan (the City's Unitary Development Plan) and Birmingham's Green Action Plan. It is intended to form part of the City Council's Local Agenda 21 programme.

1.1.2 The Strategy is underpinned by current thinking on sustainability and biodiversity flowing from The Earth Summit in Rio de Janeiro in 1992, and in the Government's own Biodiversity Action Plan, by the spirit of Agenda 21 and by recent research on, for example, open space provision and species and habitat conservation. This places it at the forefront of strategy development, while it is still securely rooted in approved statutes and policies.

1.1.3 The document forms Supplementary Planning Guidance and will be taken into account when deciding planning applications and appeals.

1.1.4 For many years nature conservation in Birmingham has been the province of various agencies in the public and voluntary sectors, including the City Council. Until now, there has been no overall framework or long term vision to guide, co-ordinate and prioritise their work. The Strategy is designed to highlight opportunities for action by a wide range of people and organisations, acting on their own or in partnership with others. And during the course of its preparation there has been extensive consultation.

1.1.5 It is intended that the Strategy be adopted by all, and that it will provide a focus for actions with the common aim of securing Birmingham's nature conservation resource for the future.

1.2 FORMAT

1.2.1 This Introduction is followed by:

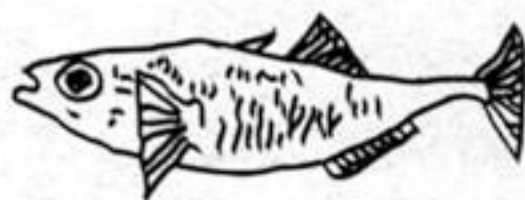
- PART TWO which identifies Birmingham's main habitats and geological features, and describes their characteristics, value and locations in the City. It also sets the habitats in broader climatic, geological, historical and geographical contexts.
- PART THREE which is the heart of the Strategy and sets out policies, principles and guidelines for nature conservation activity. It also identifies the ways in which action will be taken to put them into practice.
- PART FOUR which identifies different groups in the City whose work or activities can and do have an impact on the nature conservation resource. It suggests ways in which each can contribute to the implementation of the Strategy, both on their own or in partnership with others, including the City Council.

1.2.2 The Strategy Map incorporates appropriate policies from The Birmingham Plan and identifies Birmingham's sites of quality, wildlife corridors and Wildlife Action Areas.

1.3 THE IMPORTANCE OF NATURE CONSERVATION

WHAT NATURE CONSERVATION IS

1.3.1 Nature conservation can be defined as the conservation of animals, plants and other living things, the places where they live, and the geological and physical features which form those places, to ensure their long term survival. It embraces protection, management and the creation of new habitats.



THE BIRMINGHAM PLAN

This is a statutory land use plan for the whole of Birmingham prepared in accordance with the legal requirements of the Town and Country Planning Acts. The Plan came into force in July 1993. It provides the context for land use decisions, and in particular the determination of planning applications, throughout the City. There was extensive consultation and a public inquiry before it reached its final form.

The Plan takes as its starting point the need to stem decentralisation, and the social polarisation associated with this, and to direct new activity, investment and development into the existing urban area. It is intended that this new activity should emphasise the maintenance, renewal and improvement of the City's environment. The Plan emphasises the key relationship between economic activity and the quality of the environment, capturing this in its twin aims of urban regeneration and economic revitalisation. It also recognises the dynamic nature of a major city like Birmingham. Change and renewal are inevitable: the challenge is to manage these in ways which enhance the quality of the whole. Environmental quality is therefore a theme which runs throughout the Plan, and the City's natural environment is an important part of this.

Chapter 3 of the Plan sets out environmental policy and includes a section on nature conservation. There are two aspects to this.

● 1. The Plan seeks to protect the best of the City's existing nature conservation areas. Specific protection is provided for Birmingham's two SSSIs and for forty Sites of Importance for Nature Conservation (SINCs). It is important to recognise that the extent of this protection is limited by the extent of the Council's statutory powers. Where SINCs are in private ownership, for example, the Council has no day to day control over their management. Greater protection is proposed for six of these SINCs through their designation as Local Nature Reserves.

● 2. The development of measures to improve the diversity and quality of wildlife habitats throughout the City. Opportunities to achieve this will often arise through the recycling of land and development proposals. There will always be, however, occasions when desirable development will lead to the loss of valuable wildlife habitat: in such cases the Plan advocates that wherever possible provision will be made for a replacement habitat of equal value.

To carry these principles forward the Birmingham Plan commits the City Council to producing a comprehensive nature conservation strategy. This Strategy is therefore rooted in the policies and proposals set out in the Birmingham Plan and is fully consistent with them.

WHY IT IS IMPORTANT

1.3.2 Nature conservation may be justified for three main reasons; the usefulness of nature, the beauty of nature and the value of nature in its own right.

THE USEFULNESS OF NATURE

1.3.3 The natural world provides everything the human race needs for its well-being. The air we breathe, the food we eat, the medicines we take, the materials we use for clothes, buildings and machines, all come, directly or indirectly, from the natural world and its processes.

THE BEAUTY OF NATURE

1.3.4 People enjoy wildlife and the places it lives in many different ways. They may experience it first hand, or through books, radio and television. Nature provides inspiration for artists of all kinds, and is a source of

endless fascination to children. In Birmingham it provides an ever changing backdrop to daily life, and people would be poorer without it.

THE VALUE OF NATURE IN ITS OWN RIGHT

1.3.5 Wildlife has as great a claim as people to the earth and its resources. As humanity is just one of millions of species it should respect the rest of the natural world, and try to ensure that human activities cause the minimum amount of damage to it. Animals, birds, flowers and trees need air, water, food and living space, and we should not deny them these things.



1.4 INTRODUCING BIRMINGHAM

1.4.1 Birmingham's image is still too often that of a concrete jungle dedicated to the car, and not that of a green city with many open spaces and a rich natural heritage. The

image is exaggerated, but past development and recession has left a legacy of problems, a lack of access to quality open spaces (particularly in the inner city areas) as well as derelict and unused land. Even though the total amount of open space may have increased this does not necessarily mean that its value to people and to wildlife has improved.

1.4.2 Because of this some people are perhaps surprised to learn that Birmingham has a great variety of attractive open spaces, such as Sutton Park, Moseley Bog Local Nature Reserve and the Cole Valley. The extensive canal system and Birmingham's three rivers form part of a network of open corridors throughout the City. Here, and in many other places across Birmingham thousands of plants and animals, many increasingly rare within Britain, survive and indeed thrive alongside industry and housing. Here too the people of Birmingham enjoy nature on their doorstep.

1.4.3 There is nowhere in Birmingham where people have not changed the landscape. Changes in the use of land and buildings will continue in response to social, economic and technical forces. The task of the Strategy is to ensure that, whilst these changes take place, the City's nature conservation resource is there for future generations to enjoy.

1.5 THE STRATEGY CONTEXT

1.5.1 This is one of the first nature conservation strategies for an urban area to be produced since The Earth Summit in Rio de Janeiro in 1992. As such, it may be a pioneering document which seeks to address, in the context of Birmingham's wildlife, the key concepts of sustainability and biodiversity.

1.5.2 The Earth Summit, and Agenda 21 which is one of its main outputs, set an international framework for action at all levels, from the individual to the global, to safeguard our environment and our future. Local action is being promoted through a programme called Local Agenda 21, which the City Council has embraced. The European Union has produced its own strategy for sustainable development and has adopted measures to improve the environment of Europe.

1.5.3 The UK Government announced its environmental objectives in 'This Common Inheritance' in 1991. This included over 30 proposals relating to nature conservation. Following the Earth Summit, the Government produced four strategy documents to meet its new commitments, including the UK Strategy for Sustainable Development and the UK Action Plan for Biodiversity. They both have major implications for nature conservation.

1.5.4 The City Council recognises that it has an important part to play at the local level in identifying and tackling environmental issues, and empowering the people of Birmingham to take a full part in the process. The Council has produced a 'Green Action Plan' which sets out an overall strategy for conserving and improving the City's environment. The Plan contains much of relevance to nature conservation, including policy aims, a programme of detailed action about plants and animals, promotion and awareness, and pollution.

1.5.5 In 1993 the City Council adopted 'The Birmingham Plan' setting out strategic and detailed policies for land use in the City, and setting a framework for development control. The Plan provides a framework of key statutory policies covering nature conservation interests, including site protection, green belt, the City's open space network, nature conservation and development, habitat creation and management. This framework draws and builds on previous policy initiatives adopted by the City Council, including 'Birmingham - A Greener Future' produced in 1988.

The City Council recognises that it has an important part to play in identifying issues, tackling them, and enabling the people of Birmingham to take a full part in the process.

1.5.6 Birmingham is bounded by ten other local authorities. The plans, strategies and guidelines of these authorities in relation to their own nature conservation resources provide an additional context for action within the City. This is particularly so with regard to cross-boundary corridors and countryside areas. The provisions of the Black Country Nature Conservation Strategy (in part included in the four Black Country Boroughs' Unitary Development Plans) Warwickshire County Council's Arden Landscape Guidelines and Hereford and Worcester County Council's Management Strategy for North Worcestershire, are particularly important.

1.5.7 A broader and wide-ranging legislative, advisory and policy context is provided by a growing body of European law relating to nature conservation, by UK statutes, statutory instruments, Government circulars and Planning Policy Guidance Notes. The European Union's Habitat and Species Directive, the 1981 Wildlife and Countryside Act (as amended) and Planning Policy Guidance Note No.9 Nature Conservation are of particular importance. The advice of Government agencies, such as English Nature, the Countryside Commission, the Forestry Authority and the Sports Council, together with the River Catchment Management Plans of The Environment Agency and voluntary conservation sector initiatives such as 'Biodiversity Challenge,' provide further guidance and background.

2. THE NATURE CONSERVATION RESOURCE

2.1 GEOLOGY AND CLIMATE

2.1.1 Birmingham occupies about 27,000ha on a plateau of flat-topped hills dissected by open river valleys. The plateau lies 120 to 180 metres above sea level (South Yardley = 130m, Winson Green = 145m, Hill Top in the Sandwell Valley = 174m) and extends to the north through Cannock Chase and to the south at Clent. To the west it is bounded by the Rivers Penk and Stour and to the east by the River Tame.

2.1.2 To the west, south west and north of the City the solid rocks beneath are of Triassic sandstones and pebble beds. To the south east there are Triassic clays and mudstones of the Mercian Mudstone Group. Both types of solid rock are overlain by extensive sheets of boulder clay and glacial sands and gravels. There are also thin bands of alluvial deposits within the river valleys.

2.1.3 The natural soils of the City are derived from these glacial deposits and the harder, solid rocks beneath. Over the Triassic rocks the soils tend to be fine textured reddish brown clay or sandy clay. Coarse textured stony sands and gravelly soils have developed over the pebble beds as for example at Sutton Park. As a once agricultural, and then heavily industrialised area, the natural soils have been greatly affected by cultivation, quarrying, development, re-development and pollution. Whilst pollution tends to increase soil acidity, mixing in of lime-rich mortar and other building materials tends to make soils more neutral.

2.1.4 As Birmingham is in the middle of Great Britain it is likely to be drier and colder in the winter and warmer in the summer than other parts of the country. The average annual rainfall is 665mm, August being the wettest month and February and July the driest months. The average daily minimum temperature even through the coldest months is just above 0°C with an average daily maximum of 6.6°C. In the summer months the average daily minimum is 10°C and the maximum 19°C. Ground frosts can occur into July.

2.2 HISTORIC DEVELOPMENT

2.2.1 Before people settled here the hills would have been largely covered in oak woodlands with heathy glades. The woodlands might have reached down into the wet valley bottoms forming dingles amongst which may have been found reed swamps, bogs and open water. Once people cleared the woodlands, heathland areas would have expanded on the poorest acid soils. Gradually, as people learnt how to cultivate land for crops and grazing, more and more of the woodland and

some of the heathland was cleared and converted into fields and hedges.

2.2.2 The oak woodlands, heathlands and wetlands of Sutton Park, and the agricultural land elsewhere, indicate what the natural vegetation of Birmingham was like before, during and after this process. (For example Sutton Park owes its survival to the fact that from Saxon times to the reign of Henry VIII it was used for hunting.) The word 'heath' in many Birmingham place names indicates the extent of the former heathland.

2.2.3 Many of the suburban roads of south Birmingham, such as Webbs Lane and Brook Lane, still have rural hedgerows. Many were created as a result of the Enclosure Acts of the 1700s and 1800s, but some originate from much earlier times.

2.2.4 As a result of the Industrial Revolution many new habitats for plants and animals have been created: canal and railway embankments, quarries and pits, expanses of tarmac, brick rubble and mortar from the demolition of buildings, and piles of waste products from the metal and chemical industries - and indeed from our dustbins.

2.2.5 In Victorian times parklands around some of the City's grand houses were developed into public parks and open spaces. The original concept was to bring the essence of the countryside, or at least the essence of the parkland to be found around large country houses, into the town. The development of large residential estates (including Bournville, Calthorpe and Moseley) in existing woodland and farmland provided an opportunity for the introduction of many new trees and shrubs. Many of these 'recreational parklands' have nature conservation value and the City Council has done much in recent years to re-introduce a greater diversity of habitats and plants into many parks to enhance this value. The People and Wildlife Survey conducted during the development of this Strategy revealed that parks are the most likely places people will visit when they want to see wildlife.

2.2.6 More recently periods of rapid housing development resulted in much farmland being turned into a new habitat - gardens. Whilst this resulted in the loss of many wildflower meadows, hedges and mature trees it provided opportunities for new trees, shrubs and - most importantly - garden ponds to be introduced.

2.2.7 As a result of these changes the natural environment of the City today is a mixture, a mosaic of the old and the new; ancient woodland, new woodland, ancient bogs, new ponds and lakes, old heathland and the new urban commons (see below) developing on vacant land.



2.2.8 From the past it is principally the big oak trees, purple heather, yellow gorse, holly and bluebells that reflect the ancient natural heritage of the City. For the present it is bramble, rosebay willowherb, bird's foot trefoil, golden rod, mugwort, hawthorn, goat willow, silver birch, sycamore and Rhododendron that symbolise the most obvious new additions to that natural heritage. All of this, old and new, is valuable to both wildlife and people.

2.3 THE MAIN HABITATS¹

WOODLAND

2.3.1 Woodlands dominated by English oak are characteristic of Birmingham. Although woodland accounts for less than 2% of the total area of the City almost all of it consists of broad-leaved trees rather than introduced conifers. On wetter land oak gives way to alder, for instance at Hill Hook, Sutton Coldfield.

2.3.2 There are 7 ancient woodlands in Sutton Park, and 18 elsewhere in the City (listed on back of Strategy Map). These have been permanently wooded since at least 1600. There are examples at Bromwich Wood, Rubery Hill, Jones's Wood, Sutton Coldfield and Moseley Golf Course. Pinfields Wood, in the Lickey Hills, is an ancient woodland located outside the City boundary but owned and managed by the City Council. The woodlands range in size from 2ha to 37ha.

2.3.3 There is a very small amount of coniferous woodland (24ha) and approximately 99ha of mixed woodland combining broad-leaved and coniferous species, most notably at Sutton Park. New plantings of mixed woodland are now frequent, for example at Moseley Bog, Woodgate Valley and Queslett.

HEDGEROWS

2.3.4 There are well over 850 hedgerows throughout the City. Most of them are almost wholly hawthorn, but additional shrubby species include elder, blackthorn, hazel and dogwood. These add to the diversity of the older hedgerows, as do trees such as oak, field maple, alder and ash. There are many hedgerows in the Woodgate Valley and the farmland east of Sutton Coldfield, but perhaps the majority are to be found lining suburban roads, especially in the south of the City.

SCRUB

2.3.5 Scrub covers a slightly smaller area of the City (661ha) than does woodland (709ha).

It consists of shrubs like hawthorn, willow, elder and gorse, and young trees. This habitat is particularly valuable for birds and insects. Scrub is most commonly seen spreading through abandoned railway sidings, allotments or playing fields, where it is the first stage in the development of new woodland. As such it offers great opportunities to make up for the huge losses of woodland from the City over the last few centuries.

2.3.6 Such new woodlands may take 40 years or more to develop, and although they are quite different to ancient woodlands, they are of undoubted value to wildlife. Typically they contain ash, hawthorn, willows, broom and guelder rose, growing alongside laburnum, domestic apple, Swedish whitebeam, Cotoneaster and garden privet. This reflects the varied nature of today's urban landscape.

2.3.7 In some areas the spread of scrub may be destroying species-rich grassland. Decisions will have to be made about the appropriate balance between the two habitats, taking into account the needs of wildlife, and aesthetic and recreational issues.



TREES

2.3.8 Looking at Birmingham from its tall buildings the significant contribution that trees make to the urban landscape, and the links they form between the open spaces, is very obvious. The Department of Leisure and Community Services estimates that there are 100,000 street trees in the City. In many places they are the only available habitat for wildlife. If a tree is removed another is planted as nearby as possible. This approach kept the tree population constant for many years, however, following the storms of recent years which devastated many trees, about 3,000 new street

1. Primary source of habitat as well as species data: EcoRecord, Ecological Database for Black Country and Birmingham based on surveys 1986-1990. Further surveys are required see section 3.8. Information Base. For example, many of the City's parks, railway corridors and Green Belt have not as yet been well surveyed.

trees have been planted. Others have been given remedial treatment. The City Council is preparing a Tree Strategy to help with site and species selection and management. There are even more trees owned by householders, and these make a significant contribution to wildlife habitat and landscape quality.

GRASSLAND

2.3.9 Birmingham people are very familiar with the expanses of close-mown grassland, totalling some 3290ha, that cover much of the City's open space. Of greater value to wildlife are the 941ha of unimproved and semi-improved grassland. ('Unimproved' in this context means land that has not been ploughed, fertilised or otherwise cultivated, or greatly disturbed by development.) This may be cut only once or twice a year, or not at all. It is typically found in the river and stream valleys, in Sutton Park and the Woodgate Valley and along railway embankments. Some is in parks and in recent years management changes have included planting wildflowers in it. There are examples of this in Cannon Hill Park, Perry Hall Playing Fields, Aston Park and Ward End.



2.3.10 Unimproved neutral grassland covers 780ha in the City. It may be home to lady's mantle, hay rattle, cowslip, and betony. One of the best examples is found in the Newhall Valley.

2.3.11 The City's wet grasslands are particularly important as there are only 524ha in the whole of Birmingham and the Black Country. There are wet meadows at Woodgate Valley and Plants Brook Reservoirs, and in several parks such as Kings Heath Park and Pype Hayes Park. Lady's smock, devil's-bit scabious and southern marsh orchid are typical of these places.

2.3.12 Acid grasslands cover 36.3ha in Birmingham, although they must at one time have been much more extensive. They occur in Sutton Park. Though not rich in species they do contain some important and rare plants such as adder's tongue.

HEATHLAND

2.3.13 Heathland, dominated by heather and other dwarf shrubs and with few trees, occurs on about 45ha of land outside Sutton Park, and takes up 448 ha within the Park. This heathland is particularly important in a national context because it is 'transitional', comprising species more typical of upland heaths such as crowberry, cowberry and bilberry, and also those more commonly associated with lowland heaths including heather and dwarf gorse. The most common

heather is ling but bell heather and cross-leaved heath are also present in some places. Cross-leaved heath typically grows in wetter places. The heathers grow with varying amounts of wavy hair-grass, purple moor-grass, common bent, sheep's-fescue and heath bedstraw. The best example of heathland is in Sutton Park, with smaller fragments at Rubery and Rednal, Hodge Hill Common, and along the railway and canal cuttings where the soil is poor, sandy and acidic. Further areas occur outside the City, but under the City's jurisdiction, in the Lickey Hills.

URBAN COMMONS

2.3.14 Ecologically one of the most significant recent events in towns has been the expansion in the number of bare sites following the demolition of buildings, or the abandonment of land such as allotments or playing fields. Such land may be allocated for essential redevelopment or it may become available for other uses such as open space. There is a continuous process of new sites being created and existing sites being brought back into use. In the meantime nature ensures that such sites quickly become home to many plants and animals. These places are sometimes called 'urban commons'.

2.3.15 Usually the first to arrive on bare sites are plants such as Oxford ragwort, coltsfoot, knotgrass, scentless mayweed and various members of the pea family. After a few years tall herbs succeed these 'pioneers', with the appearance of such plants as rosebay willowherb, Michaelmas daisy, cow parsley, mugwort, wormwood, tansy, great mullein, and teasel. At this stage urban commons provide nectar for many insects and seeds for small birds. Eventually grassland plants take over and then scrub woodland begins to develop on all but the thinnest soils. Newbridge Farm Recreation Ground, on land left bare after the River Cole was straightened, is an example of a mature urban common.

2.3.16 Scientists know relatively little about these urban commons and so it is difficult to be clear about their exact contribution to the City's nature conservation resource. Local people, however, value them, and they do make a contribution to peoples' enjoyment of nature.

WETLANDS

2.3.17 Bog, fen, swamp and marsh make up Birmingham's wetland habitats. Bogs and fens are permanently wet habitats where the plants do not fully decompose leading to the formation of peat rather than soil. In acid bogs Sphagnum moss grows in association with plants like round-leaved sundew and

butterwort, as at Sutton Park. Where the water is slightly alkaline and richer in plant foods, sedge and reed fen is more likely to form as at Hill Hook.

2.3.18 Swamps tend to form at the edges of lakes and canals where plants such as reedmace, sedges, yellow flag iris and flowering rush dominate. Notable examples of swamp communities in the City have developed at Plants Brook Reservoirs, Sutton Park and Edgbaston Pool.

2.3.19 Marsh is also permanently wet but it forms over soil rather than peat. Marshes are often colourful habitats, and may be peppered with ragged robin, marsh marigold, lady's smock, water mint, water forget-me-not and rushes and sedges. This is the main habitat for the colonies of southern marsh orchids to be found at Queslett and Plants Brook Reservoirs.

OPEN WATER

2.3.20 Birmingham has a number of large stretches of water in the shape of its three main rivers, canals and reservoirs, and numerous ponds and streams. Standing water includes 57 lakes and reservoirs and 167 small ponds under 0.5ha in size (excluding the many garden ponds). These are very important, not just for the plants that grow there, but also for the fish, amphibians, molluscs, birds, bats, dragonflies and other insects that live in and around them. They are also important landscape features, and may be crucial parts of wildlife corridors.

2.3.21 There are 170kms of rivers, streams and canals in the City. Birmingham is at the heart of the country's canal system and some of the canals are rich in wildlife. The natural watercourses have generally poor, but now improving, water quality which restricts the range of fish that can live in them. The main species include stickleback, perch, carp and bream. Even so they provide enough food to support kingfishers in several places. Management of the streams and rivers to deal with flooding can detract from their nature conservation value.

2.3.22 In the last 50 years many ponds have disappeared from the countryside. Where they occur now in urban areas they are very valuable for frogs, newts and toads, which have also declined over the same period. They are also valuable for waterfowl and great-crested grebes, moorhens, coots, mallards, and Canada geese are familiar breeding birds on Birmingham's lakes and reservoirs. Goldeneye, tufted ducks, teal, widgeon and pochards may be seen during

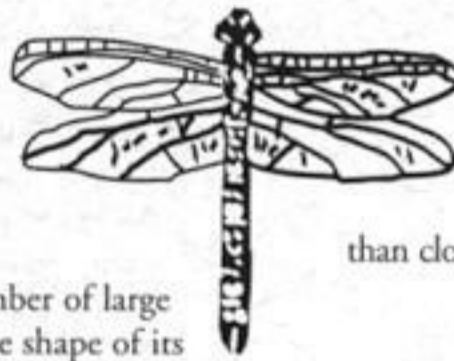
the winter months.

ARABLE AND CULTIVATED LAND

2.3.23 There are 118ha of arable and cultivated land (excluding parks and open spaces) and an estimated 250,000 domestic gardens in the City, all of which are of some value to wildlife. With the right management they could be much more valuable - and this is reflected in this Strategy. The wildlife that most people are aware of - foxes, blue tits, robins, butterflies, hedgehogs and squirrels - is often seen first in gardens and parks.

PARKS AND OPEN SPACES

2.3.24 Parks and open spaces cover more than 3000ha of the City. Some of them, such as Cannon Hill and Rectory Parks, provide rich wildlife habitat. Many others, particularly the smaller parks and recreation grounds, offer little more than close-mown grass.



2.4 BEYOND BIRMINGHAM'S BOUNDARIES

2.4.1 The habitats of Birmingham do not exist in isolation, they form part of a mosaic that stretches across Britain. They are echoed in the heathlands, bogs and oak woodlands to the north, around Chasewater and Cannock Chase. The canal system runs right through the Black Country and into Warwickshire and Worcestershire. The gravel pits to the north and east of the City continue the open water habitat. The bluebell woods to the south of the City are repeated within the old Arden landscapes of Warwickshire, for example at Clowes Wood and Willenhall Wood. Marshy grasslands are well spread throughout Warwickshire, as at Fen End and Berkswell. To the west the agricultural land spreads out from Woodgate Valley, Frankley and Bartley Green, linking up with quality sites at Illey, Lapal and Uffmoor, and on the Lickeys and at Chaddesley. To the north-east farmland in Sutton Coldfield provides a link to Staffordshire and North Warwickshire.

2.4.2 Within the conurbation City land in the Sandwell Valley is part of a substantial open space close to the City centre, which is included in the Beacon Regional Park. The completion of the motorway box¹ around the conurbation will in effect define a new informal boundary for the immediate influence of the City. The Strategy takes this into account.

1. The motorway box is made up of the national trunk road network surrounding Birmingham - the M5, M6, M42, and M40. Two missing parts, The Birmingham North Relief Road and The Western Orbital Route are still to be implemented.

3. POLICIES AND THEIR IMPLEMENTATION

3.1 INTRODUCTION

3.1.1 This section describes how the City Council will seek to conserve Birmingham's rich and diverse natural heritage. It sets out policies, principles and guidelines which aim to conserve the City's natural and geological features, and its wildlife, for future generations of Birmingham people. It addresses aspects of protection, development, management, enhancement, information gathering and storage, monitoring and the wider environment. It also emphasises the importance of providing local people with opportunities to enjoy and be involved in nature conservation, encouraging them to participate in the conservation of the City's nature conservation resource. Its provisions relate directly to the policy approach of The Birmingham Plan, in particular its nature conservation principles, and to the broader environmental strategy set out in the Green Action Plan.

3.1.2 Also identified are the ways in which the Strategy may be implemented. The Strategy's success will be judged as a result of the action which flows from its provisions. The action points identified form the basis of the proposed Action Programme.

3.2 SUSTAINABILITY

3.2.1 Sustainability is generally defined as: "Meeting the needs of the present without compromising the ability of future generations to meet their needs". Those needs relate not only to the resources needed to sustain economic well-being, but equally to the quality of the natural environment.

3.2.2 The UK Strategy for Sustainable Development highlights the need for action to incorporate the principles of sustainability into everyday working practices. In particular it requires that decisions are taken with proper regard for their environmental impact.

3.2.3 The UK Strategy identifies the following key issues linking sustainability and nature conservation:

- the conservation and enhancement of biodiversity, ie. the populations and natural ranges of native plant and animal species in the UK, together with the wildlife habitats and ecosystems which support them;
- increasing public awareness of, and involvement in, conservation related sustainable activities;
- the wise use and management of commercially exploited habitats and species, particularly non-renewable resources;

- ensuring that nature conservation objectives are given their full weight in all other policy areas.

The balancing of nature conservation and other policy objectives is dealt with here. Issues of biodiversity, public awareness and commercial exploitation are addressed in 3.3, 3.7 and 3.9 respectively.

3.2.4 Birmingham's Definitive Strategy for the Environment, part of the Green Action Plan, echoes the broad approach of the UK Strategy and provides a general framework of environmental principles as a context for addressing sustainability in the City. Birmingham's Local Agenda 21 (the City's Sustainable Development Strategy) is expected to set definitive sustainability principles for all City Council activities. This Nature Conservation Strategy takes an important first step in setting out the key principles relevant to nature conservation within the context of the Green Action Plan, so informing and contributing to the development of Local Agenda 21.

3.2.5 The box opposite sets out five key sustainability principles to guide the City Council's consideration of nature conservation in relation both to its own activities and those of others.

3.2.6 The sustainability principles introduce the key concepts of Critical Natural Capital and Constant Natural Assets. The notion of "capital" reflects the idea that the best of the City's nature conservation resource must be retained intact if its future value is not to be eroded. The idea of 'assets' on the other hand reflects the view that less critical parts of the resource can change provided, where possible, that their total value stays the same.

3.2.7 Birmingham's Critical Natural Capital and Constant Natural Assets have been defined in terms of sites of quality, special habitats and species (see boxes below and 3.4). There is significant overlap between sites and habitats and species. In particular a large proportion of the special habitats and species parts of Critical Natural Capital are found within sites of quality. This still leaves, however, sizeable areas of habitats which form part of Constant Natural Assets outside the sites of quality.



SUSTAINABILITY PRINCIPLES

- 1. Decisions should always be taken using the best information available on habitats, species and geological features and on the soil, water and air which affects them.
- 2. Action should be based on the precautionary principle where potential damage to wildlife or its habitats is both uncertain and likely to be significant. This means if in doubt do not do anything which may cause serious or irreversible damage. On the other hand be prepared to take precautionary action where not to do so may also result in damage.
- 3. Consideration should be given to the ability of a particular habitat or ecosystem to continue to support particular species: ie proposed action must not allow critical levels of disturbance, damage or pollution to be exceeded.
- 4. There must be no erosion of the City's Critical Natural Capital below the limits set in 3.4. Critical Natural Capital represents the best of the City's nature conservation resource, in terms of its richness, irreplaceability and value to Birmingham people. Opportunities should be sought to add to the present levels.
- 5. The City's stock of Constant Natural Assets should be maintained at the levels set in 3.4. Constant Natural Assets are less critical parts of the City's nature conservation resource. Even so they make an important overall contribution to local biodiversity, and peoples' experience of the natural world. Constant Natural Assets should be increased wherever possible, but may be subject to local changes. These may occur when losses can be compensated for by the creation of new resources of at least equal value. Where possible losses which cannot be replaced should be avoided.

The City Council will take the following steps to put the Strategy's sustainability principles into practice:

- Integrating the Strategy's sustainability principles into the decision-making processes of City Council departments, for example in respect of policy formulation and other areas, including product purchasing, development plan preparation, development projects, development control and land enhancement.
- Incorporating the Strategy's sustainability principles into the Birmingham Sustainable Development Strategy - the City's Local Agenda 21.

CRITICAL NATURAL CAPITAL

SITES OF QUALITY

- Sites of Specific Scientific Interest (SSSIs)
- Sites of Importance for Nature Conservation (SINCs)
- Local Nature Reserves (LNRs)

HABITATS

- Ancient Woodland
- Lowland Heathland
- Wetland (bog, fen, marsh)
- Unimproved Acid Grassland
- Wet Grassland

SPECIES

- Rare and Protected Species

CONSTANT NATURAL ASSETS

SITES OF QUALITY

- Sites of Local Importance for Nature (SLINCs)

HABITATS

- Alder/Willow Woodland
- Ash Woodland
- Beech Woodland
- Birch Woodland
- Broadleaved Mixed Woodland
- Oak Woodland
- Scrub
- Hedgerow
- Street Trees
- Unimproved Neutral Grassland
- Lakes and Reservoirs
- Ponds (under 0.5ha)
- Canals
- Rivers and Streams
- Urban Commons
- Residential Parkland
- Recreational Parkland
- Arable

- Identifying all areas of Critical Natural Capital and Constant Natural Assets, and providing for and encouraging their protection, management, monitoring and, where possible, enhancement.

3.3 BIODIVERSITY

3.3.1 Biodiversity (or biological diversity) is the variety of life we see around us. It includes every sort of animal, plant, fungus and microscopic life. It embraces the great variety of species, the genes those species carry, and the places where those species live. There are three distinct levels of biodiversity:

- diversity between and within ecosystems and habitats
- diversity of species
- genetic variation within individual species

3.3.2 the overall goal of the UK's Biodiversity Action Plan is: 'To conserve and enhance biological diversity within the UK and to contribute to the conservation of global diversity through all appropriate mechanisms.' Its objectives include:

- Increasing public awareness and involvement in the conservation of biodiversity (see 3.7)
- The conservation and, where practicable, the enhancement of:
 - the overall populations and natural ranges of native species and the quality and range of wildlife habitats and ecosystems.
 - internationally important and threatened species, habitats and ecosystems.
 - species, habitats and natural and semi-natural habitats that are characteristic of local areas.



POLICY one

The City Council will seek itself and encourage others to conserve and enhance biological diversity within Birmingham and to contribute wherever possible to the conservation of national and global biodiversity.

This policy will be implemented by

Operating the planning system and through grounds maintenance and other land management activities (whether as the client or the service provider) habitat creation and other environmental improvements (see 3.4, 3.5, 3.6)

Setting targets and preparing action plans for the conservation of selected habitats and species (see 3.4)

Establishing a programme of survey and monitoring of the City's nature conservation resource (see 3.8)

Maintaining, developing and updating a comprehensive information base (Ecorecord) on the geology, ecosystems, habitats and wildlife of the City, including the maintenance of a Birmingham Biodiversity Schedule (see 3.8).

3.3.3 Within Birmingham there are many different habitats and ecosystems supporting many thousands of species. The importance of these varies in terms, for example of rarity or the statutory protection they enjoy (see 3.4) but all make their own contribution to the total biodiversity of the City. The City Council is keenly aware of its own role and the role of others in seeking to celebrate, maintain, and wherever possible, enhance the biodiversity of Birmingham.



3.4 PROTECTION OF THE NATURE CONSERVATION RESOURCE

3.4.1 A fundamental requirement for nature conservation in Birmingham is the protection of the City's Critical Natural Capital. This is the best of the City's sites, habitats and species in terms of natural richness, irreplaceability and value to people. Allied to this is the need to maintain the level of sites and habitats in the City which make up Birmingham's stock of Constant Natural Assets and which contribute so much to local biodiversity and public enjoyment (see 3.2).

3.4.2 In line with the sustainability principles set out in 3.2 sustainability limits have been defined for Critical Natural Capital and Constant

Natural Assets respectively. This has been done in order to set levels against which performance can be measured (see Table 1.). In the absence of any known national or international criteria to guide the setting of limits in this field of practice, a pragmatic approach linked to local factors has been adopted. This is explained in the notes to Table 1.



TABLE 1. CRITICAL NATURAL CAPITAL AND CONSTANT NATURAL ASSETS SUSTAINABILITY LIMITS AND THRESHOLDS

Critical Natural Capital Sustainability Limits		
	Estimated Current Level (1)	Sustainability Limit
Sites of Special Scientific Interest	885ha	885ha
Sites of Importance for Nature Conservation	647ha (2)	712ha (3)
TOTAL	1532ha	1597ha
Constant Natural Assets Threshold		
	Estimated Current Level (1)	Threshold
Sites of Local Importance for Nature Conservation	349ha (4)	439ha (5)

NOTES:

(1.) Source: EcoRecord.

(2.) Local Nature Reserves' area of 19.7ha included within this figure.

(3.) The proposed 10% growth of 65ha (from 647ha to 712ha) allows for the likely designation of new SINC's following resurvey and re-assessment of SLINC's, as a result of habitat management and enhancement. In the absence of national and international guidance, a 10% increase as proposed is considered to be both a reasonable minimum level for which to aim, and a level which is realistically achievable, given the potential SINC's identified in the SLINC Schedule, and the scope for improvement in habitat quality.

(4.) Figure based on boundaries in May 1995. It excludes canals, rivers, streams and hedgerows (see Habitat Protection).

(5.) The proposed growth of 90ha (from 349ha to 439ha) represents the total increase in the area of sites of quality considered necessary to effectively address, and in theory eradicate, Wildlife Action Areas (see 3.7). This figure is based on the identification of 60 open spaces within the Wildlife Action Areas, with an average area of about 1.5ha each, potentially capable of being enhanced to SLINC status in order to address deficiencies in accessible wildlife habitats.

3.4.3 There is also a need to protect open spaces within and beyond the City which link the sites of quality and special habitats. Together they make a viable and flourishing wildlife network.

SITES OF QUALITY

3.4.4 Valuable wildlife sites are often given protection by being designated in some way. These designations may be made by international, national or local government. In Birmingham there are Sites of Special Scientific Interest (SSSIs), Sites of Importance for Nature Conservation (SINCs) Local Nature Reserves (LNRs) and Sites of Local Importance for Nature Conservation (SLINCs). All of Birmingham's designated sites are listed in the Appendix. SSSIs, SINCs and LNRs together make up the sites part of the City's Critical Natural Capital. Many of the habitats and species which comprise the rest of the City's Critical Natural Capital are found within these sites (see Habitat and Species Protection).

3.4.5 SSSIs are notified by the Government's nature conservation agency, English Nature. They represent the best examples of British habitats and geological features, and may also contain rare species or important populations of species. They enjoy statutory protection through the Wildlife and Countryside Act. Sutton Park and Edgbaston Pool are the only two SSSIs in Birmingham. Their status is recognised and protected in The Birmingham Plan. Sutton Park has been identified by English Nature as a Nature Conservation Review Site¹ and a possible National Nature Reserve. National Nature Reserves are areas of national and sometimes international importance used and managed primarily for nature conservation in agreement with English Nature.

3.4.6 SINCs are sites of either City-wide or more local value for both wildlife and people. They have been identified by English Nature in consultation with the City Council and others. Selection is in accordance with set scientific and social criteria. Both the criteria and administration of the SINC system are currently under review. The likelihood is that the system will be operated by the City Council in partnership with English Nature and the Urban Wildlife Trust. The Birmingham Plan identifies 40 SINCs which are protected by the City Council.

3.4.7 LNRs may be declared by local authorities (under the National Parks and Access to the Countryside Act 1949) on land with high value for nature conservation, in which they have a legal interest. The aims are to provide for the conservation of nature, public education and enjoyment. They are declared in



consultation with English Nature. The City Council's Leisure Services Committee has re-affirmed its commitment to sites of quality by increasing the protection given to four of the City's SINCs by declaring them LNRs. The Birmingham Plan identifies two further LNRs which the City Council is in the process of declaring.

3.4.8 The Birmingham Plan acknowledges further sites of quality in the City. 120 of these have been identified through ecological survey and assessment, supported by the City Council and carried out largely by the Urban Wildlife Trust between 1986 and 1990. These Sites of Local Importance for Nature Conservation (SLINCs) make up the sites part of the City's stock of Constant Natural Assets. The survey information shows that some of these sites are potential SINCs. See Appendix 2. In some cases SLINCs are allocated for development in The Birmingham Plan. Where this is so the nature conservation value of the site will be a material consideration in relation to planning applications.

3.4.9 The City Council recognises that further sites of quality are likely to emerge. These will warrant survey and assessment to ascertain their value for nature conservation followed by appropriate designation. This is particularly the case with geological sites, as we know little about the City's geological conservation resource and other unsurveyed areas of open space. It is also recognised that the value of sites of quality may change, so that it will be necessary to redesignate them from time to time (see 3.8.).

3.4.10 The close relationship between nature conservation and archaeology is also important to note here. At least 50% of the sites of quality identified contain archaeological remains. The protection of the nature conservation resource therefore often ensures the preservation of archaeological sites and vice-versa.

1. Nature Conservation Review sites are selected by English Nature following comprehensive survey and assessment of biological sites of national and international importance

3.4.11 The Birmingham Plan provides a strong statutory basis for the protection of sites of quality through the planning system. There is however a need to address potential threats arising outside the scope of the planning system. This is especially so where sites of quality are privately owned. Forty per cent of the City's SSSIs and SINCs are not owned by the City Council. Planning Policy Guidance Note No.9 seeks to ensure that all statutory sites are protected from damage and destruction, and are conserved by appropriate management. It also recognises local designations and their importance for local communities and supports their adoption by local authorities for planning purposes. At the same time the need to balance conservation and development is acknowledged and mechanisms to achieve this balance suggested.

POLICY two

The City Council will protect and preserve SSSIs, SINCs, as recognised by The Birmingham Plan, and LNRs by not normally allowing any development which may destroy or adversely affect their nature conservation value, and by seeking to prevent any other forms of damage.

POLICY three

The City Council will, wherever possible, protect SLINCs as part of Birmingham's stock of Constant Natural Assets. Efforts will be made to maintain the stock of Constant Natural Assets and to increase that level wherever possible.

POLICY four

The City Council will encourage private landowners to achieve the protection of all privately owned sites of quality.

These policies will be implemented by:

Informing private landowners of the location and importance of sites of quality in their ownership and of sources of further advice and information.

Reaching agreement with English Nature about the declaration of Sutton Park SSSI as a NNR.

Considering declaration of further LNRs.

Surveying and assessing potential sites of quality as they emerge.

Drawing up a candidate geological site list.
Resurveying and reassessing as a priority: a) all SLINCs identified as potential SINCs; b) ancient woodlands not already designated as SINCs.

OPEN SPACE NETWORK

3.4.12 The protection of sites of quality is, as we have seen (Sites of Quality) critically important for nature conservation. It is not enough though to simply protect a series of scattered, individual sites. There is a parallel need to protect a network of open spaces linking together sites of quality and special habitats. Such an extensive network can also provide easy access to recreational facilities and recreational footpaths of great value to people. It may offer opportunities for access to key sites and experiences of nature in its own right (see 3.7).

3.4.13 Research shows that isolated sites tend to support fewer species of wildlife. What is there is more vulnerable to extinction. Because of this, it is important to maintain links between sites of quality to help species to spread from one site to another, and to sustain genetic variability. The European Union's Habitat and Species Directive, as highlighted in Planning Policy Guidance Note No.9, recognises this fact and places an obligation on member states to maintain, and where appropriate, develop features of the landscape, such as rivers, woods and hedgerows "essential for the migration, dispersal and genetic exchange of wild species."

3.4.14 The Strategy Map identifies a strategic network of open space corridors, of value to wildlife and people. Some are shown as 'Key' corridors which are defined on the basis of known wildlife value (supported by survey data) and accessibility. These key corridors relate closely to the network of green wedges and linear open spaces identified in The Birmingham Plan. The other corridors reflect potential wildlife value unsupported by existing survey data.

3.4.15 The sites of quality are the foundation of the network and include canals, streams and stretches of river. In this context, they can be seen as the beads of a necklace, strung together and augmented by a wide variety of open spaces, parks, golf courses, school playing fields, institutional grounds, vacant land, domestic gardens, railway lines, allotments and other features. This additional land may have some nature conservation value, or the potential to be enhanced for both wildlife and people. The relationship between the sites of quality and associated open spaces is shown schematically on the Strategy Map and is related to The Birmingham Plan's open space proposals.

3.4.16 The network provides links to the City's urban fringe countryside, such as the Sandwell Valley in the west and Sutton Coldfield Green Belt in the north-east. It also extends beyond the City boundary into all neighbouring council areas. It does this through a variety of canal, river, open space, open countryside and other links. The network has a series of

nodes, where four or more corridors meet. This may be either at existing sites of quality, for example at The Ackers SINC / SLINC in Small Heath and at Lifford Reservoir SINC, or on other land. Elsewhere in the network there are weak links or gaps, as in Brookvale and Witton between Sutton Park and the River Tame, and along the River Rea through the City Centre. The Strategy Map shows nodes and weak links.

3.4.17 The Strategy Map focuses on the City's strategic open space network for nature conservation. However, the City Council also recognises that other open land and features can function as corridors at a more local level. In many areas this finer grained network provides routes for wildlife and people, local habitats and visual amenity. It may include hedgerows, verges, street trees, rows of gardens or rights of way, as well as features and open spaces associated with the strategic network. These local networks may also link into the strategic network or have the potential to do so.

3.4.18 The City Council is already committed to protecting and developing an integrated and accessible system of open space, from the Green Belt into and out of the City, using linear open spaces of varying character. This system, a significant proportion of the Strategy's network, is afforded policy protection through the Green Belt, linear open space and other provisions of The Birmingham Plan.

3.4.19 The Council recognises however that this protection does not fully address the special needs of wildlife, for example, for continuity, integrity and in relation to maximising the widths of corridors. Neither does it provide for the protection and support of land and features having a local corridor function for the joint benefit of wildlife and people. The Council further recognises the need to undertake habitat management and creation work within the network and to address the needs and demands of the public who use it (see 3.6, 3.7).

POLICY five

The City Council will where possible protect, develop, and extend, the strategic network of open spaces identified on the Strategy Map. In particular, it will safeguard the network, and its habitats, against any development which may sever corridors or otherwise harm their integrity.

POLICY six

Links with open spaces beyond the City boundary will be maintained, improved and, where possible, extended, in co-operation with neighbouring authorities, statutory undertakers and others as appropriate.

POLICY seven

The intrinsic value of any land or natural features having a corridor function, in terms of nature conservation and associated access and amenity, will be safeguarded wherever possible.

These policies will be implemented by:

Bridging gaps, and strengthening weak links, in the strategic open space network within the corridors shown on the Strategy Map.

Targeting enhancement measures at key nodes within the strategic open space network, as indicated on the Strategy Map.

Identifying local open space corridor networks, together with potential links to the identified strategic open space network, particularly through the preparation of planning and development briefs..

Seeking to ensure that if proposals for new motorways are progressed links with open countryside beyond Birmingham are maintained for both wildlife and people.



HABITAT PROTECTION

3.4.20 The places that species live in are called habitats. Some of these are easy to recognise, for example woodland, open water and grassland. These and others can be divided into several different types however - for instance woodland may be broad-leaved, or mixed, and grassland may be acid, neutral or lime-rich, depending on its soil. As well as this there are some habitats which it is difficult to recognise at once, such as marsh, bog, fen and swamp. A piece of open land may consist of just one habitat, or contain several. Moseley Bog is mainly woodland, but Sheldon Country Park has woodland, grassland and streams.

3.4.21 Generally speaking the older, less disturbed and larger a habitat is, the more valuable it will be for nature conservation. A good example of this in Birmingham is Sutton Park which contains three main habitats - woodland, wetland and heathland. A number of Birmingham's species are only found in Sutton Park. On the other hand there are species which thrive in more disturbed and artificial habitats, and these do well in Birmingham. The urban commons which develop on such land are often home to colourful flowers, grasses and shrubs such as Buddleia. These places may be temporary, but they serve to show succession from bare ground to young woodland, and are very typical of urban areas.

3.4.22 Another valuable semi-natural habitat within Birmingham is traditional arable farmland, although we do not know its exact extent. The value of this for wildlife is often overlooked. The mosaic of fields, hedgerows, copses, mature trees and small streams has become important to a number of species, especially small mammals and birds.

3.4.23 Other urban habitats are good for wildlife too, such as canals and hedgerows. Some hedgerows and all of the City's canals are SLINCs. The City contains characteristic habitats which have arisen as a direct result of its development, in particular its recreational parkland and its residential parkland. There are, for example, 147 traditional parks containing mature trees, short mown grass and lakes and pools. The 'leafy suburbs' (residential parkland) of, for example, Moseley, Four Oaks, Edgbaston and Harborne are typified by large houses set in extensive gardens. The extent of recreational and residential parkland is not known.



3.4.24 The City Council has supported habitat and site surveys in Birmingham. These have been carried out by ecologists and the information has been computerised by EcoRecord (see 3.8). The surveys have revealed a wide range of habitats including the internationally rare (lowland heathland) the typically urban (open land being reclaimed by nature) and the natural habitats of the English lowlands (including oak / birch woodland and small rivers). Each habitat varies in

its degree of 'naturalness' as all of them have been altered in some way by human activity. Together they reflect the City's location, its rocks and soils, its history and development, and past and present land-use.

3.4.25 Habitat rarity should be viewed in local, national and international contexts. It should also be looked at in terms of the species supported. A common habitat providing a home for a rare or threatened species is more valuable because of this.

3.4.26 Tables 2 and 3 set out the extent of Birmingham's Critical Natural Capital and Constant Natural Assets habitats and define sustainability limits and thresholds for them. This is done in line with the sustainability principles set out in 3.2. This serves to provide quantified targets and levels against which performance can be measured.

3.4.27 The habitat surveys show that the City's rare habitats are: lowland heathland, wetland (including bog, fen and marsh) unimproved acid grassland, wet grassland and ancient woodland. (see 3.2 and Table 2).

LOWLAND HEATHLAND. Britain contains 20% (about 58,000 ha) of Europe's lowland heathland. Up to 2,485 ha of this is in Staffordshire and the West Midlands, with 448 ha in Sutton Park alone. Birmingham has an important responsibility for this habitat within its boundaries.

WETLAND HABITATS. There are only about 56 ha of wetlands within the City, bog and fen being very scarce and found mainly in Sutton Park. Bogs, fens and marshes have been described as the West Midlands County's rarest habitats.

UNIMPROVED ACID GRASSLAND. There are 217ha of this habitat in Birmingham and the Black Country, of which there are 36ha in the City excluding Sutton Park.

WET GRASSLAND. Birmingham and the Black Country contain only about 524ha of this habitat. Of this 121ha are in Birmingham.

ANCIENT WOODLAND. English Nature has listed 25 woodlands in the City in its "West Midlands Inventory of Ancient Woodlands" (see Appendix). Together they total only 167ha, of which 119ha are in Sutton Park. To be included in the Inventory the areas concerned must have been wooded since at least 1600.

3.4.28 The importance of effective action to conserve habitats is reflected in a number of important documents. The Habitats and Species Directive includes a legal duty to take positive action to conserve one of Birmingham's habitats - lowland

heathland. To protect this and other habitats the UK Biodiversity Action Plan supports the setting of habitat targets and the preparation of plans to achieve these. 'Biodiversity Challenge' recommends that priority habitats for action should be those upon which priority species depend. Many areas of valuable habitat in Birmingham fall within sites of quality (SSSIs, SINC, SLINCs or LNRs). As with species it is often necessary to favour one habitat to protect another. (For example birch trees (emerging woodland) are often felled and removed to protect heathland.)

3.4.29 Action to achieve habitat protection must extend beyond the City Council and the land which it owns or controls. The City is already involved for example in the Staffordshire and West Midlands Heathland Partnership. All landowners need to be involved if habitat action plans are to succeed. As well as protection, habitat management and creation issues must also be addressed if viable wildlife habitats are to be maintained and developed within the City (see 3.6). Accurate information on the resource (for example on park lands, hedgerows and arable land) needs to be gathered (see 3.8).

POLICY eight

The City Council will seek to protect the City's rare habitats as key elements of Birmingham's Critical Natural Capital by not normally allowing development which may destroy or adversely affect their nature conservation value, and by seeking to prevent other forms of damage.

POLICY nine

The City Council will, wherever possible, protect other natural, semi-natural and wildlife-rich artificial habitats in the City, as part of Birmingham's stock of Constant Natural Assets against development which may destroy or adversely affect their nature conservation value, and by seeking to prevent other forms of damage. Efforts will be made to maintain the stock of Constant Natural Assets habitats, and wherever possible to increase them.

These policies will be implemented by:

Preparing, in conjunction with appropriate individuals and agencies, a pilot habitat action plan with detailed habitat conservation targets, for a rare habitat within the City or arable farmland. Subject to the outcome of that pilot preparing action plans for the other rare habitats.

Taking an active part in the Staffordshire and West Midlands Heathland Project.

Incorporating the completed action plans into site management plans and Compulsory Competitive Tendering (CCT) contracts.

Considering the preparation of nature conservation guidelines for areas of residential parkland with high nature conservation value.

Considering extension of policy protection through SINC designation to all sites known to contain rare habitats, including ancient woodland, and to other such sites as they emerge, subject to detailed survey and assessment.

TABLE 2. BIRMINGHAM'S CRITICAL NATURAL HABITATS SHOWING ESTIMATED CURRENT LEVELS AND PROPOSED SUSTAINABILITY LIMITS

Habitat	Estimated Current Level (ha) (1)	Sustainability Limit (ha) (2)
Ancient Woodland	167	167
Lowland Heathland (3)	493	493
Wetland (bog, fen, marsh, swamp)	56	56
Unimproved Acid Grassland	36	36
Wet Grassland	121	121
TOTAL	873	873

NOTES

(1). Source: EcoRecord. Excludes habitat resource in Frankley and Sutton Park (except heathland - see Note (3) data for which is currently unavailable.

(2). Setting of sustainability limit at estimated current levels for all habitats reflects the primary importance of maintaining current stock intact and the difficulty of increasing Critical Natural Capital.

(3). Includes 448ha in Sutton Park. Source: English Nature 1988 Draft Survey Lowland Heathland in Staffordshire and West Midlands County 1986-87.

1. Biodiversity Challenge is a plan for action on biodiversity from the UK's major conservative agencies, including the Wildlife Trusts, the RSPB and World Wide Fund for Nature. It is their contribution to the UK's response to the Convention on Biodiversity which was one of the outputs from The Earth Summit.

TABLE 3 BIRMINGHAM'S CONSTANT NATURAL ASSETS SHOWING ESTIMATED CURRENT LEVELS AND PROPOSED THRESHOLDS

Habitat	Estimated Current Level (ha) (1)	Threshold (ha)
Ash Woodland	5	
Beech Woodland	20	
Alder/Willow Woodland	90	
Birch Woodland	64	
Broad-leaved Mixed Woodland	270	
Oak Woodland	105	
TOTAL WOODLAND	554	610 (3)
Scrub	661	727 (3)
Hedgerows (no.)	1179	1297 (3)
Street Trees (no.)	100,000 (2)	105,000 (4)
Unimproved Neutral Grassland	780	858 (3)
Lakes and reservoirs (no.)	96	96 (6)
Ponds (no.)(7)	167	184 (5)
Canals (kms)	40	40 (6)
Rivers (kms)	130	130 (6)
Urban Commons	380	380 (6)
Arable	not known	to be determined (6)
Residential Parkland	not known	current (6)
Recreational Parkland	not known	current (6)

NOTES

(1). Source: EcoRecord. Excludes habitat resource in Frankley and Sutton Park (except heathland - see Note (3) data for which is currently unavailable.

(2). Source: Department of Leisure and community Services.

(3). In the absence of research into the sustainable levels of these habitats, the proposed 10% increase is considered to be both a reasonable minimum and a realistically achievable level, given the known open space resource in the City.

(4). The proposed 5% increase reflects the continuing need to compensate the storm damage in 1987 and 1990/91, and to consolidate the City's position as one of the most tree-populated cities in Europe

(5). The proposed 10% increase reflects a perceived need to help compensate for drastic habitat losses in the countryside and the associated decline in amphibians.

(6). The no growth proposal reflects situations where increases are not feasible (rivers, , canals , lakes and reservoirs) where current levels are not known (parklands) or both (arable). In the absence of research into the sustainable level of urban commons, a no growth option is considered reasonable and sustainable given the continuous process of redevelopment in the City.

(7). Defined as less than 0.5ha. Excludes garden ponds.

(8). Habitat areas quoted in the Strategy and drawn from EcoRecord data are estimates based on EcoRecord's calculations. Until such areas can be measured accurately from digitised maps, changes in habitat should be calculated in the same way.

SPECIES PROTECTION

3.4.29 Birmingham provides permanent and temporary homes for thousands of kinds of plants, fungi, animals, birds, fish, insects and other invertebrates (such as spiders, woodlice and snails). The sum total of all of the species present comprises one aspect of the City's biodiversity. Individuals of each species may live and breed permanently in the City, pass through on migration, live here for a period of time each year, or be casual or accidental visitors. The wildlife of the City has been so radically affected by change and disturbance that its main characteristic is its cosmopolitan nature.

3.4.30 Our knowledge of this wildlife is incomplete. Finding out more about it is a continuous process. We know most about flowering plants, birds, mammals and some groups of insects. We know least about fish, most insects and most of the other invertebrates.

3.4.31 The ways in which records are gathered means that sometimes it is impossible to tell whether or not a species is in the City or just outside it. For example some records give locations such as 'Minworth' or 'Sandwell Valley'. As wildlife is mobile, and as the City boundary is a political rather than a natural boundary, this Strategy includes such species where appropriate.

3.4.32 Species do not exist in isolation from each other, or from the habitats within which they live. Activity which favours one species may result in the control of another, and species conservation action is closely linked to habitat management and protection. Some species are so successful that they have to be controlled for reasons of public health and safety, economic damage or nature conservation itself. Many species are the subject of protective, sporting or control-ling legislation. Some legislation demands that positive action must be taken to protect species or their habitats.



3.4.33 Species have to be selected for conservation action both because some species are more threatened than others, and because the resources available are limited. To assist in making this choice the City's species have been divided into two:

- Rare and protected species
- Common species and species not considered to be at risk (including a separate list of declining and threatened species).

3.4.34 Over time species may move from one category to another, and at any time the ways in which species are allocated to the lists may not be mutually exclusive. All lists, including those contained in this document, will be subject to changes as more information is gathered (see 3.8) the impacts (positive and negative) of human activities are measured, and as a result of further discussions. Allocation of species to the different lists has been done with reference to local and national agencies, local specialists, legislation and published sources such as English Nature's Species Conservation Handbook, Red Data Books, and reports based on research published by recognised authorities.

3.4.35 RARE AND PROTECTED SPECIES. Rarity may be considered at an international, national and local scale, and in relation to numbers of individuals in a population and the location and distribution of populations. For example Birmingham has a number of woods where bluebells grow, so that this species cannot be considered locally rare, but on a global scale bluebells have a restricted distribution and are therefore relatively rare. The UK contains about 30% of the World population. On the other hand black redstarts are relatively abundant in other parts of Europe, but Birmingham's small breeding population is significant as currently less than 80 pairs breed in the British Isles. Protected species are those which are safeguarded by national or international law. The City's rare and protected species may be defined as follows:

- 1. Protected species as listed in the Appendix. These are species or groups known to be established (in the case of plants) or to be breeding in the City, and to be included in Schedules 1, 5 and 8 of the Wildlife and Countryside Act.
- 2. Rare species as listed in the Appendix. These species are known to occur in, or very close to the City, and to be identified as rare internationally or nationally.

3.4.36 COMMON SPECIES. All other species and groups fall into this category and will be listed in the City's proposed Biodiversity Schedule. Examples include red fox, grey squirrel, magpie, feral pigeon, wasp, brown rat and house mouse. Some of these are typical of cities. They may be subject to control for public health or legal reasons. At the same time these and other common species contribute to peoples' experience of wildlife in their neighbourhood, and are frequently used in awareness raising and environmental education programmes. Some common species are sustaining or increasing their populations in the City (sometimes at the expense of more sensitive species). Others will benefit from habitat conservation and creation work, and projects designed to benefit rare and protected species.

3.4.37 Attempts to identify species particularly characteristic of Birmingham have failed because of difficulties with this concept. Species considered to be declining or under threat in the City have been listed separately with more detail as to their status in the Biodiversity Schedule. Included are those known, or believed to be, threatened with extinction in the City, or to occur in, or very close to, the City, and known, or believed, to be declining locally, nationally or internationally. A species has been defined as "rare" or "declining" locally if it occurs in less than 15 of the 300 1km squares in Birmingham. (Adapted from Flora of Staffordshire, Edees, 1972).

3.4.38 The City's rare and protected species form the species part of Birmingham's Critical Natural Capital. (See 3.2).

POLICY ten

The City Council will itself seek, and encourage others, to safeguard the City's rare, and protected species as key elements of Birmingham's Critical Natural Capital.

POLICY eleven

The City Council will itself seek, and encourage others, to conserve all species in the City, as a contribution to the maintenance of biodiversity in Birmingham, subject to provisions necessary for species control.

POLICY twelve

The City Council will seek to ensure that laws in relation to protected species are implemented.

POLICY thirteen

The City Council will normally control species only where it can be demonstrated that there is:

- a legal obligation to do so;
- a threat to human health;
- a threat to the status of rare and protected species;
- a need to participate in wider wildlife conservation measures being implemented by other agencies;
- no other reasonable option.

Any such control will be carried out humanely, by qualified personnel, and in accordance with approved guidelines and codes of practice.

These policies will be implemented by:

Maintaining effective liaison with the Police Wildlife Liaison Officer.

Defining sustainability limits for rare and protected species in consultation with appropriate individuals and agencies.

Preparing local summary species action plans, incorporating detailed species conservation targets, for selected species in accordance with Strategy guidelines (see box below) and in consultation with appropriate individuals and agencies.

Incorporating local summary species action plans into existing site management regimes.

Surveying and assessing as a priority sites known to support rare, protected, declining and threatened species not already identified as sites of quality.

Reviewing, devising and implementing guidelines and codes of practice for those engaged in species control.



SPECIES ACTION PLAN GUIDELINES

Preference will be given to:

- 1. Resident over visiting species.
- 2. Fully protected over partially protected species.
- 3. Rare over threatened and declining species.
- 4. Species targeted by other conservation agencies.
- 5. Species characteristic of, and present in, rare habitats.
- 6. Species included in Red Data Books.
- 7. Species for which practical action is possible.

Ways of protecting the Nature Conservation Resource can include:

Operating the development control system, including, where appropriate, the use of planning obligations.

Preparing Constituency Environmental Action Plans, The Parks Strategy, and through Area Regeneration Initiatives, Local Action Plans, etc.

Considering the purchase of key land in private ownership, including the making of Compulsory Purchase Orders (CPOs) where no other form of protection can be found, subject to the availability of funding.

Key land will include:

- threatened Critical Natural Capital sites;
- threatened Critical Natural Capital habitats;
- land within corridors identified on the Strategy Map.



3.5 NATURE CONSERVATION AND DEVELOPMENT

3.5.1 The statutory definition of 'development' is wide-ranging, covering building and engineering operations, carried out in, on, under or over land, and also embracing certain changes in land use.

3.5.2 The relationship between economic development and environmental quality, including Birmingham's natural environment, is a key theme of The Birmingham Plan which needs to be reflected equally in the implementation of this Strategy. All types of development activity, whoever is responsible for it, has the potential for positive or negative impacts on the natural environment. Because of this there is a need to look carefully at all such activity, assess its impacts and to seek to influence development in such a way as to achieve an acceptable balance between it and nature conservation interests.

ENVIRONMENTAL ASSESSMENT

3.5.3 The advance assessment of development can provide a valuable opportunity to consider potential impacts on the natural environment. As a result damage may be minimised and positive effects maximised. In some cases assessment may lead to a decision not to proceed. Such an assessment can be particularly valuable in the early stages of a development proposal, such as at the initial brief stage of a City Council scheme, or when considering a major planning application.

3.5.4 Environmental assessments are required by law in the case of certain types of development, and at the discretion of local authorities in other cases. The City Council recognises the value of widening this approach as a means of integrating the Strategy's sustainability principles into its decision-making. Such an approach is consistent with the principles and objectives of Birmingham's Green Action Plan. It also anticipates likely European Union requirements for Strategic Environmental Assessment of all proposals, programmes and policies.

NATURE CONSERVATION IN THE DEVELOPMENT PROCESS

3.5.5 There will always be times when the development process will, or will appear to, run counter to the interests of nature conservation, particularly when securing economic or other benefits for the City.

3.5.6 In some cases, developments do not require planning permission or will take place as a

result of old permissions. In these situations the City Council may be powerless to prevent any damage to, or destruction of, the nature conservation resource or to turn development to the advantage of nature.

3.5.7 In other cases, arguments for otherwise desirable development may on balance over-ride the case for conservation leading to Council approval. Here, the Council will examine the scope to mitigate the damaging effects of development, for example through imposing conditions. Also ways can be explored of securing conservation benefits through the development process, for instance through planning obligations. This approach is firmly enshrined in The Birmingham Plan and fully consistent with the development principles in Planning Policy Guidance Note No.9. The Strategy's sustainability principles (see 3.2) and the limits and thresholds in 3.4 provide a more detailed basis for the implementation of this approach. The Development Guidelines on page 22 offer further detailed guidance.

POLICY fourteen

The City Council will ensure that where appropriate a full assessment of all impacts upon the City's nature conservation resource is carried out at the earliest possible stage of both its own and others' development proposals.

POLICY fifteen

The Council will require a statutory Environmental Impact Assessment wherever considered appropriate within the terms of existing legislation.

These policies will be implemented by:

Using powers under the General Development Order to require applicants to provide more detailed information on development proposals.

Considering the need for carrying out an environmental assessment at the initial brief setting stage of all City Council development projects appropriate to the scale and location of the proposal.



DEVELOPMENT GUIDELINES

- 1. Existing habitats and features of value for nature conservation (eg. ponds, watercourses, unimproved grassland, walls or rock faces) should be identified, retained wherever possible, enhanced as appropriate and protected from damage throughout the development work. The decision whether to retain habitats or features should take full account of the need to safeguard archaeological or historic landscape features.
- 2. Species of particular value for nature conservation, for example rare, protected, threatened or declining species, should be identified and protected wherever possible within a development scheme. Legal requirements in respect of protected species must be observed (see section 3.4).



- 3. Habitat and species translocation should only be considered as a last resort. Aftercare, management and monitoring by the developer will be essential.
- 4. Where the loss of habitats or features is unavoidable, provision should be made where possible for replacement habitats or features of at least equal value. Any replacement should be provided as close as possible to the development and ideally be on a 'like for like' basis. Such replacement will take place in addition to any translocation exercise which may be undertaken.
- 5. Wherever possible development proposals, whilst taking full account of the need to safeguard archaeological or historic landscape features, should include the creation of new habitats or features, for instance pond construction, tree, hedgerow or wild flower planting, stream de-culverting or the revealing of fresh rock exposures. Particular attention will be paid to developments within the strategic open space network and in the Wildlife Action Areas identified on the Strategy Map (see section 3.7)



- 6. Surface water flows arising from development proposals will be assessed and regulated as appropriate (eg. through washlands or pools) in order to control the flow of pollutants and rate of discharge into local watercourses or wetlands. Balancing features can also form valuable habitats in their own right.

- 7. The planning and layout of developments should take full account of on-site habitats and features and the surrounding nature conservation resource, such as adjacent sites of quality, the strategic open space network, local corridor features or habitats.
- 8. Opportunities should be taken wherever appropriate through the development process, to secure public access to sites of quality or land within the strategic open space network which is owned by developers.
- 9. Where new or replacement habitats or features are provided as part of a development scheme, or where, exceptionally, translocation is undertaken, a minimum three year maintenance period, in accordance with an agreed plan, will be required from the developer. In certain cases a commuted sum to cover or partially cover maintenance costs will also be required. As an alternative, developers may make other arrangements for maintenance of habitats and features, for example with a residents group or landscape contractor.
- 10. The maximum possible area of permeable ground surface should be incorporated into developments. This will help to maintain local surface water levels and to recharge groundwater.
- 11. The greatest possible proportion of locally indigenous species should be included in any habitat creation, planting or landscaping scheme. Such species tend to support more wildlife than others, while contributing to the maintenance of local genetic and biological diversity.



- 12. Impacts on the nature conservation resource arising from water, land or air pollution as a result of development will be assessed and minimised.
- 13. The design of structures, such as offices, bridges, roads or car parks, should take full account of the opportunity or need to incorporate features of value for nature conservation such as roof gardens, landscaped courtyards, toad and badger tunnels and bat ledges.
- 14. Construction or other materials used in development schemes (eg. peat, limestone or tropical hardwoods) should, wherever possible, originate from sustainable sources which do minimum harm to nature conservation interests.

POLICY sixteen

Where development damaging to the City's nature conservation resource is unavoidable, the City Council will, where possible, take steps to ensure that negative impacts on existing features are minimised and opportunities for positive nature conservation impacts are maximised.

This policy will be implemented by:

Using Tree Preservation Orders (TPOs) for the protection of individual trees and groups of trees and woodland.

Using existing standard conditions in respect of trees, woodlands and hedgerows.

Concluding planning obligations where necessary to secure proper planning of an area and to encourage those desirable for a good quality development.

Using powers under the General Development Order to require applicants to provide detailed information on development proposals, so that a thorough assessment of the nature conservation impacts can be made.

Adopting a targeted approach to the monitoring of planning consents with a nature conservation dimension, concentrating on those affecting sites of quality, the strategic open space network and Wildlife Action Areas.

Preparing planning and development briefs describing in detail how certain sites should be developed

Incorporating the Strategy's development guidelines into appropriate design guidelines and manuals of City Council Departments.



LAND AND PROPERTY DISPOSAL

3.5.8 The City Council's commitment to nature conservation and to the safeguarding of the City's nature conservation resource needs to be fully reflected in its land and property disposal activities.

3.5.9 Given the system of committee checks and balances which exists in order to prevent the disposal of any land or property which is not truly surplus to the City Council's needs, the likelihood of land of nature conservation value reaching the surplus land register is small. Nonetheless, there is a need to provide for the protection of nature conservation interests should this arise.

POLICY seventeen

The City Council will, where it intends to dispose of its interest in land or property, take steps to ensure that any known nature conservation interests are reasonably protected and provided for as a condition of that disposal.

This policy will be implemented by:

Operating the land and property disposal system.

STATUTORY UNDERTAKERS AND PUBLIC UTILITIES

3.5.10 Most of the utilities are statutory undertakers with legal powers to carry out work in connection with their businesses. The City Council has no rights of involvement beyond that of being notified of works, in its capacity either as landowner or highways authority. Most statutory undertakers are, however, charged with at least a basic duty of care in respect of the protection, and in some cases the promotion, of environmental or nature conservation interests.

3.5.11 Development works in connection with utilities (eg. television cable laying, water and gas pipes) together with the maintenance of those which already exist (such as flood improvement works on rivers or canal repairs) may have significant implications for the City's nature conservation resource. The potential for damage to existing habitats or features, for example damage to street trees, from the laying of new pipes or cables is a nationally recognised issue, but the work exists on such a large scale that it is difficult to monitor and counter. There are however more positive opportunities for imaginative remedial work, habitat enhancement or creative conservation measures, particularly in respect of rivers and canals.

3.5.12 There is, therefore, an implicit requirement for all statutory undertakers to take full account of nature conservation in all aspects of their work. This requirement has led in some cases to the adoption of codes of practice to govern the exercising of their powers. The City Council already has in operation its successful 'Guidelines for the

Protection of Trees During Installation and Maintenance of Underground Services.' There is an opportunity to broaden its scope to further encompass nature conservation.

POLICY eighteen

The City Council will continue to liaise and seek co-operation with a range of statutory undertakers, with a view to ensuring good practice in relation to works affecting the City's nature conservation resource. It will in particular consider seeking agreement on the following broad principles:

- consideration of nature conservation issues at the earliest stages of all works;
- full assessment of the negative and potentially positive impact of proposed works on the nature conservation resource;
- the adoption of a code of good practice to govern works on the ground, including adequate on-site supervision;
- appropriate reinstatement on completion of works.
- the need for a penalty clause system where they do not exist at present.

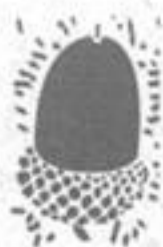
This policy will be implemented by:

Maintaining contact with all relevant statutory undertakers.

Using the City's Tree Forum to review the necessity for a similar group to deal with the wider aspects of nature conservation.

Using the existing "Guidelines for the Protection of Trees During Installation and Maintenance of Underground Services" prepare a broader code of practice to cover nature conservation.

Adopting a targeted approach to the monitoring of works with a nature conservation dimension, concentrating on those affecting sites of quality and the strategic open space network.



3.6 ENHANCEMENT OF THE NATURE CONSERVATION RESOURCE

3.6.1 The protection of the City's existing nature conservation resource is crucial, but in itself not enough to ensure the survival and development of a flourishing natural environment.

3.6.2 Proper management of the nature conservation resource can serve to increase its value, for both wildlife and people. Equally, poor management or the lack of management can damage or destroy good nature conservation sites as effectively as the bricks and mortar of development.

3.6.3 The creation of places for wildlife to live, such as ponds and wetlands, can bring it into new areas. This is especially valuable in those parts of the strategic open space network, or in the Wildlife Action Areas as identified on the Strategy Map (see 3.7 Access), where wildlife is currently lacking. Creative conservation can also add to existing sites of quality or special habitats, for example by restoring and expanding areas of heathland.

3.6.4 Policy in The Birmingham Plan clearly recognises the importance of enhancing the natural environment of the City and highlights the need for measures to improve the diversity and quality of wildlife habitats.

MANAGING THE NATURE CONSERVATION RESOURCE

3.6.5 The natural world is never static. It is in a constant state of flux. Natural processes lead to changes in habitats (called "succession") and to the species present. The nature conservation value of a site or habitat can decline as a result, for example, ponds may dry out or grassland may be lost to scrub.



3.6.6 It is possible to give nature a helping hand to sustain the value of sites and habitats. This may be through action such as removing overhanging branches around a pond, or the introduction of a mowing pattern to encourage wild flowers. Action can be more subtle, as in diverting people away from sensitive areas through the information which is given to them. (see 3.7.).

3.6.7 The wrong sort of management can do harm. Mowing too frequently or at the wrong time, for example, can stop wildflowers appearing, while removing streamside vegetation in summer may stop ducks and moorhens from breeding.

3.6.8 In all cases, monitoring of both action and inaction is fundamental to effective management. (see 3.11).

3.6.9 Responsibility for the management of sites of quality, special habitats and other open spaces which make up the City's nature conservation resource, rests with a variety of owners and agencies in the public, private and voluntary sectors. These include electricity and water companies, other utilities, hospital trusts, private estate managers (as in Edgbaston and Bournville) sports clubs, universities, colleges and schools.

3.6.10 The role of the Council's Department of Leisure and Community Services in managing the City Council's own land is very significant. Even so it is responsible for only about 60% of the City's SSSIs and SINCs, and probably a smaller proportion of SLINCs. Management plans have been completed for Sutton Park, Project Kingfisher, Plants Brook Reservoirs and other key sites.

3.6.11 The management of other City owned open space (eg. land in the Green Belt, parklands, public open space, allotments and cemeteries) both within the strategic open space network and elsewhere in the City, is also important for both nature conservation and people. It is this land which provides the most important experience of nature for the greatest numbers of people. It also absorbs a lot of recreational pressure.

3.6.12 Council-owned sites of quality, including its four Local Nature Reserves and the Cole Valley SINC (focus of the Project Kingfisher initiative) together with the rest of the Council's land, are managed largely in accordance with specifications prepared, on a constituency basis, by its Area Parks Managers. These sites are subject to the Compulsory Competitive Tendering process. Some additional special conservation work on sites of quality is undertaken by the City's team of Conservation Assistants, based at

Sutton Park, and the Parks Ranger Service. A small proportion of the land is managed under lease or licence, for agriculture, grazing, or for example, in the case of Harborne Walkway, for nature conservation.

3.6.13 The City Council seeks to build on this foundation, in line with the provisions of the Birmingham Plan, the Green Action Plan and Birmingham - A Greener Future. In so doing it tries to set a positive example to private landowners in the City, to work with such owners and to encourage greater involvement from and partnerships with the voluntary and community sectors. The box below sets out a series of more detailed guidelines for the management of the City's nature conservation resource.

POLICY nineteen

The City Council will, itself, and in partnership and liaison with others, seek to secure appropriate management of the City's nature conservation resource.

These policies will be implemented by:

Considering the declaration of further Local Nature Reserves, in co-operation with private landowners as necessary.

Protecting land licensed for grazing and known to have nature conservation interest.

Considering management agreements with the occupiers of leased or rented land known to have nature conservation interest.

Considering management agreements with voluntary conservation groups (eg. The Woodland Trust, West Midlands Bird Club, Urban Wildlife Trust), residents or community groups, for the management of Council-owned sites of quality.

Considering entering into S39 management agreements with private landowners, where the need has been identified for management of sites of quality or special habitats, or in the interests of rare or protected species.

Encouraging schools to adopt and manage local sites for nature conservation (see 3.7).

Considering the management of selected urban commons as demonstration sites.



HABITAT MANAGEMENT GUIDELINES

- 1. Establish the major functions of the site or habitat(s) to be managed, for example a golf course or playing field subject to recreational pressures, a linear walkway, a Local Nature Reserve or an archaeological or historic site.
- 2. Formulate management aims and objectives within the context of major functions, for example the maintenance of overall habitat diversity, increased species diversity of neutral grassland habitat, restricted public access in sensitive areas.
- 3. Prepare a management plan or brief to achieve aims and objectives. This should include a description of habitats, features and wildlife, a schedule of works necessary, timetable for implementation and monitoring methodology.
- 4. Give careful consideration to the timing of management operations, for example do not clear out ponds when amphibians are breeding or cut grassland until grasses and wild flowers have set seed.
- 5. Avoid the use of products incompatible with nature conservation, eg. use of biocides and fertilisers should be minimised.

HABITAT CREATION

3.6.14 It is almost impossible to create high quality nature conservation sites with a wide variety of habitats or features. Equally, special habitats such as ancient woodland or heathland cannot be reproduced. It is however possible to plant new woodland and hedgerows, to encourage natural regeneration of scrub or urban common, to produce wildflower meadows and to create ponds and wetlands. This can be done with reasonable hopes of creating viable wildlife habitats. Even something as simple as erecting a bird or bat box creates a new feature for wildlife. New geological features can be created through excavation or other means of exposing fresh rock faces.

3.6.15 The varying nature conservation value of the City's sites of quality and special habitats leaves ample room for habitat creation measures. Such measures will serve to add to existing habitats and help to expand the City's resources so that they support more wildlife and more stable wildlife communities. There is also a need to replace habitats lost or damaged through development, poor management or neglect. This occurs despite the best efforts of the City Council and other agencies.



3.6.16 The Strategy identifies about 150 sites of quality across the City. Their uneven spread means that there are still many areas, and people within them, deprived of a high quality natural environment close to their homes. The Strategy Map identifies 14 Wildlife Action Areas, based on such areas of deprivation (see 3.7). The creation of new habitats and features will help to address this shortfall.

3.6.17 Many Council-owned spaces and capital projects, for example the reclamation of derelict or contaminated land, or development of parks and public open space, offer potential for habitat creation. The new woodland at Small Heath Park, and the wildflower meadows at Perry Hall Playing Fields are both examples of positive initiatives by the City Council.

3.6.18 Land in private ownership and private developments offer similar potential for creative conservation (see 3.5). For example Project Aquarius (a partnership between the City Council and British Waterways) has already done much to improve the nature conservation value of the inner city canal network.

3.6.19 Projects run by the voluntary sector can also play an important part. Habitat creation by Urban Wildlife Trust at The Centre of the Earth in Winson Green is just one example of the contribution which voluntary and community groups can make to the enhancement of the City's nature conservation resource.

3.6.20 The City Council has made a commitment to habitat creation in The Birmingham Plan, Birmingham's Green Action Plan, and in Birmingham - A Greener Future. The Council is, however, also mindful of its responsibilities with regard to access and the maintenance of sewers and watercourses, and of the need to take them fully into account in considering the creation of new habitats. This need for balance is reflected in the detailed habitat creation suggestions set out in the box opposite.

POLICY twenty

The City Council will, itself, and in liaison and partnership with others, seek to expand the City's nature conservation resource through the creation of new wildlife habitats and natural features.

This policy will be implemented by:

Preparing targeted habitat creation strategies for Wildlife Action Areas, sites of quality, areas of special habitat and the strategic open space network.

Preparing planning and development briefs requiring habitat creation or revealing of geological features on appropriate sites.

Implementing a nest box scheme to encourage people to put up bird and bat boxes.

Ways of enhancing the nature conservation resource can include:

- Reviewing all grounds maintenance operations, in order to identify opportunities for enhancing the City's nature conservation resource through management or habitat creation. Compulsory Competitive Tendering contracts being amended in line with the findings.
- Requiring all contractors to have the specialist staff and equipment necessary to carry out sensitive management and habitat creation.
- Requiring all contractors to carry out the nature conservation management and habitat creation operations at the right time.
- Adopting a targeted approach to the monitoring of nature conservation management and habitat creation operations, concentrating on sites of quality and special habitats.
- Preparing management plans and incorporating them into Compulsory Competitive Tendering contracts as appropriate for all sites of quality in Council ownership. SINC's will be dealt with first, followed by SLINC's.
- Preparing enhancement strategies (including management or habitat creation briefs or plans for individual sites or habitats as necessary) for all open space within the strategic open space network, on a project area, or corridor basis. Specifications being incorporated into Compulsory Competitive Tendering contracts as necessary. Initial concentration being on:

key nodal points indicated on the Strategy Map, corridors containing significant amounts of council land, corridors offering potential for partnerships with other agencies, such as British Waterways and The Environment Agency and Urban Fringe countryside areas as identified in The Birmingham Plan (eg. Newhall Valley Country Park, Sutton Coldfield Green Belt, Sandwell Valley Green Wedge).

- Extending the special nature conservation remit of the City's Parks Ranger Service and particularly their Conservation Assistants, to other Council-owned sites of quality and special habitats within the City.
- Preparing information and advice on habitat creation and the management of land for nature conservation, including details of grants and other help. This being targeted at private landowners in the City, particularly owners of sites of quality or land within the strategic open space network.
- Encouraging private landowners with sites of quality in their ownership to prepare management plans.
- Encouraging private landowners to work with voluntary conservation, community or residents groups in the management of their land for nature conservation.
- Encouraging voluntary conservation, community and residents groups to take on responsibility for parts of the City's nature conservation resource, for example by building on the experience of the Pocket Parks initiative. This will be first targeted at the City's Wildlife Action Areas.
- Concluding planning obligations to secure management or creative conservation benefits where linked to development proposals (see 3.5).
- Encouraging gardening for wildlife.

HABITAT CREATION GUIDELINES

- 1. Target the creation of new wildlife habitats at parks, public open space (both suitable for woodland creation), vacant or unused land (eg. wetland, grassland and urban common) and school grounds (eg. scrub, urban common, hedgerows - the City Council can offer detailed advice here); But first:
 - 2. Carry out an initial survey to identify existing habitats, features (eg. archaeological or historic landscape remains) site conditions, utility constraints (eg the presence of sewers requiring future maintenance or the need for access to watercourses) and site context (eg neighbouring habitats and land uses). This will help to establish the feasibility of creating different habitat types.
 - 3. Select habitats to be created in accordance with habitat distribution and rarity across the City, eg. try to create rarer habitats where feasible. Think about other local habitats, both past and present. For example the recreation of heathland may be an option in areas where it used to be.
 - 4. Consider the option of allowing a site to regenerate naturally with only minimal assistance. This may be feasible where, for example the aim is to create scrub and urban common habitats.
 - 5. Simple guidelines for specific habitats include: -
 - Woodland: aim to provide a varied structure, ie. a tree layer, a shrub layer, composed of shade-tolerant species; and a herb layer. -
 - Hedgerow: use one or two native and two or three other species in smaller proportion for diversity. Plant a double row with a minimum width of 1m. -
 - Ponds: locate on low-lying ground away from large trees likely to shade the water and line with clay or flexible liner. Pond sides should have a shallow profile with shelves for marginal vegetation and a gentle slope for animals to climb in and out. -
 - Wetlands: poorly drained areas may offer scope for the excavation of a scrape for wading birds. -
 - Grassland: sow using a wildflower seed mix which reflects local conditions. The introduction of 'pot-grown' plants can supplement seeding.

3.7. PEOPLE AND NATURE CONSERVATION

3.7.1 Nature conservation is sometimes viewed as a scientific activity concerned only with the protection of habitats and species. Contact with nature enriches people's lives and it is in the garden that many people encounter urban wildlife for the first time, and most often after that. The recent upsurge of interest in gardening for wildlife as reflected by the many television programmes, books, wildflower seed catalogues and award schemes is a reminder of the importance of this habitat which typically falls outside the interest of most scientists. But people are also interested in urban wildlife beyond the garden fence. A local river walkway or bluebell wood enriches people's quality of life - so much so that some will help to look after them in a very practical way. Recent planning guidance from the Government recognises that local nature conservation sites often gives people the only opportunity of direct contact with nature, especially in urban areas.

3.7.2 Everyone can be involved in working towards a sustainable environment, not just the City Council but the private sector, the voluntary sector, individuals and community groups. Partnerships can be built that will enable everyone to make their contribution, supported and sustained by each other.

3.7.3 This section looks at what Birmingham people think about wildlife in the City now, their access to it, the level of awareness about local wildlife, the ways in which awareness could be improved and how people might be encouraged to help implement the Strategy, by their own actions and in partnership with others.

3.7.4 Much of the information on which the policies and actions are based, has been drawn from the results of a survey of Birmingham people completed in July 1994. As it was not possible to conduct a full scale survey it was decided that questionnaires would be sent to schools and community groups, and be made available in libraries and Council offices. The findings of the People and Wildlife Survey (The Survey) must therefore be seen not as representative of the views of all Birmingham people, but rather those who were already sufficiently interested in the issues, and motivated to respond. As might have been expected of the 650 people, including many children, who returned a questionnaire 93% thought it important to conserve nature in the City.



ACCESS

3.7.5 Research shows that people enjoy using natural open spaces in towns. Access to these places varies. (Access means here the opportunity which people have to visit natural open spaces in towns.) These spaces remind them of the countryside for many different reasons. They enjoy the peace and quiet, the naturalness of grassy paths, woodland copses and riverside walks. They like to see wildlife, to feel close to nature and to feel free to use this type of informal open space to do their own thing - be it a teddy bears' picnic for the children, a wood sculpture project or an impromptu game of hide and seek. Visiting places like Moseley Bog, Plants Brook Reservoirs or the River Cole makes people feel relaxed, happy, peaceful, at one with nature and free, but also sometimes vulnerable and alone.

3.7.6 Traditional parks and playing fields tend to be managed intensively for recreational and amenity purposes, and are open to the public, whether they are publicly or privately owned. Natural open spaces in the City, which tend to be less intensively managed, include open spaces rich in wildlife, such as woods, commons, heaths, rivers, canals and fields, which may or may not be open to the public. There are also traditional parks that include natural features such as woods and meadows and there are parts of the Green Belt that are both accessible to people and good for wildlife. The City's parks and Green Belt areas have not been well surveyed so far for wildlife and so their true value may be underestimated in this Strategy. These deficiencies are addressed in 3.8.5.

3.7.7 The Survey showed that although people tended to visit parks most often they also frequently visited canals, river walkways, country parks, woods and nature reserves in the City. When asked, however, which open spaces they would like to visit or visit more often, people said nature reserves, river walkways, country parks and woods.

3.7.8 One question asked whether children had enough access to open spaces where they could discover the natural world. A substantial majority (63%) felt that they did not. A variety of reasons were given, the main ones being that there are just not enough natural open spaces in the City, and that too much land is being used for development and not kept for open space (Table 4).

3.7.9 Many parents feel dismayed that they cannot allow their children to explore the wild places they enjoyed as children for fear of what may happen to them: traffic accidents, abduction and the hazards presented by pollution and vandalism. Even so it is known that children and adolescents are the main users of many natural open spaces, and that many adults use open spaces because they want to take their children somewhere to play, walk and enjoy fresh air.

TABLE 4. REASONS WHY CHILDREN DO NOT HAVE ENOUGH ACCESS TO NATURAL OPEN SPACES

Reason	%
Not enough open spaces available	28
Too much land being built on	17
Most available spaces not safe enough	11
Poor quality (vandalism, pollution)	8
Busy roads	6
Open spaces too far away	6
Open spaces over managed	5
Not enough information	3
Need interpretation	3
Other	13

3.7.10 There are about 150 sites of quality for nature conservation in Birmingham (see Strategy Map). However not everyone has one within easy walking distance of their home. For example Northfield has 12 SINC's and Sparkbrook has none. Some of these sites of quality are not open to the public, for instance Edgbaston Pool SSSI. As the open spaces people tend to visit most frequently are those within walking distance of their homes, policies to improve access, and meet the demand for more access, should focus on local provision.

3.7.11 Looking at land more than 500m from the edges of all of Birmingham's SSSIs, SINC's and SLINC's shows that there are 14 areas where people do not have easy access to a site of quality for nature conservation. (This analysis does not take into account barriers to access such as busy roads or railway lines or the location of entrances. Because of this the level of deprivation is under-estimated.) The 14 areas are identified as Wildlife Action Areas. (See Table 5 and Strategy Map). It may be surprising to see Wildlife Action Areas in the north of the City so close to the Green Belt. It should be remembered that the Areas are derived from an analysis of access to the sites of known quality for nature conservation. Whilst there are likely to be more open spaces and parts of the Green Belt as yet unsurveyed that may be of value it should not be assumed that this is the case. It should also be noted that because the wildlife corridors often follow and link up with the linear open space network access to wildlife will be easier for people living in Wildlife Action Areas but close to such open spaces.

3.7.12 Recent research has suggested that people should have access to a natural open space of at least 2ha within 500m of their homes and to a variety of different sized natural open spaces at increasing distances from their homes: e.g. a large open space (500ha) within 10km and a medium sized open space (100ha) within 5km. Typically people are only willing to walk 400m (the less mobile even less) to any type of open space. They are, however, prepared to make special journeys to visit larger sites that provide more opportunities and facilities. In this respect the only natural open space in Birmingham over 500ha is Sutton Park.

3.7.13 Sutton Park is located within 10km of most peoples' homes except for those south of a line linking Harborne, Moseley and Acocks Green. People in these southern wards of the City do however have reasonable access to the Lickey Hills. Although only 211ha and situated outside the City boundary the Lickeys are owned and managed by the City Council. They can be considered a link to Waseley Hills Country Park (56ha) so enhancing access to a reasonably large site. Waseley Hills, however, are also outside the City and are owned and managed by another local authority. It is estimated that the only sites of 100ha that exist within the City (and within 5km of peoples' homes) are the stretches of river and canal corridors which incorporate several sites.

3.7.14 If open spaces within Wildlife Action Areas could be improved to SLINC status this would be one way of prioritising the enhancement of the City's nature conservation resource, and most importantly peoples' access to it. The City Council owns and maintains open spaces in all the Wildlife Action Areas, but is likely to target action on areas of the City with other forms of deprivation. Action on City owned

land and derelict land awaiting redevelopment does not deny the opportunities that may exist to work with private owners to enhance access and wildlife in the Wildlife Action Areas.



TABLE 5. WILDLIFE ACTION AREAS

1. Kingstanding/Erdington
2. Mere Green
3. Falcon Lodge
4. Walmley Ash
5. Handsworth Wood/Newtown/Lozells/Birchfield
6. Bordesley Green/Ward End
7. Lea Hall/Garretts Green/Gilbertstone
8. Acocks Green/Hall Green
9. Balsall Heath
10. Kings Heath
11. West Heath
12. Tinkers Farm
13. West Harborne
14. Ladywood

3.7.15 In the Survey people mentioned more than 200 sites across the City, many of them existing parks, recreation grounds, cemeteries and playing fields, which they felt could be improved for wildlife. This underpins the conclusion that people are seeking access to natural open spaces within walking distance of their homes.

3.7.16 Local Nature Reserves make a valuable contribution both to the accessible strategic open space network and for education. The City Council is committed to declaring further Local Nature Reserves as stated in The Birmingham Plan. The combined area of the declared and proposed Local Nature Reserves is 31.5ha. In 1991 the City's population was 961,041. If the proposed new reserves are declared accessibility will be 1ha to every 30,509 people.

POLICY twenty one

The City Council will seek to ensure that where possible people have access to a variety of natural open spaces as follows:

- 1 x 2ha site within 500m of peoples' homes
- 1 x 20ha site within 2km of peoples' homes
- 1 x 100ha site within 5km of peoples' homes
- 1 x 500ha site within 10km of peoples' homes.

POLICY twenty two

The City will aim to increase Local Nature Reserve provision by 10% to achieve 1ha per 27,458 people.

These policies will be implemented by:

Identifying land in the Wildlife Action Areas to enhance for nature conservation.

Identifying sites which could be enhanced for both wildlife and people that would link into the open space network, and so contribute to the provision of 100ha sites within 5km of peoples' homes.

Considering declaring further Local Nature Reserves in co-operation with private landowners as necessary.

Encouraging other landowners to allow access to sites currently closed to the public, particularly in Wildlife Action Areas.

Seeking to protect existing access to sites outside the City boundary or the Council's ownership.

MAKING ACCESS EASIER

3.7.17 Some people find it difficult to use informal natural open spaces, just because they are informal! There are few signs to them, entrances are sometimes just gaps in fences and paths poor quality. These issues particularly affect those with reduced mobility or a disability. Also there are understandable concerns about personal security, especially for women, and about trespassing where it may not be clear that a site is open to the public.

3.7.18 Thirty six suggestions were made in the Survey about making it easier for people to enjoy natural open spaces. Most frequently mentioned were better information on locations of sites; improved safety; provision of more natural open spaces; more rangers; improved public transport; pram and wheelchair access; higher standards of maintenance; more guided visits and links to cycle routes.

3.7.19 Little is known about the ways in which the City's minority ethnic groups relate to natural open spaces, and what may be done to help them to enjoy such areas. Recent research indicates that Asian families feel most vulnerable to personal attacks, even when in large groups, when visiting natural open spaces.

POLICY twenty three

The City Council will make particular efforts to meet the needs of children, women, minority ethnic groups, and others with special needs to gain access and enjoyment from using natural open spaces.

This policy will be implemented by:

Identifying the particular needs of the City's minority ethnic groups, people with disabilities and women.

Developing and publicising links between cycle routes and public transport services and natural open spaces.

Improving access within, and interpretation on, natural open spaces.

Awareness Raising and Promotion

AWARENESS AND PROMOTION

3.7.20 A key finding of the Survey was that people do not have enough information on the location of natural open spaces in the City, how best to get to them and what they might find when they get there. There is much which can be done in promoting the opportunities that already exist.

3.7.21 The City Council has a Nature Conservation Officer and about 45 Rangers whose role it is to introduce children and adults to the City's natural heritage. They go into schools, and organise visits and events in traditional parks as well as the country parks and nature reserves. Despite this there are still many people who do not realise what they have access to. Many of the open spaces that are valuable for nature are tucked away behind houses - for instance Plants Brook Reservoirs. These are not visible from any of the surrounding main roads.

3.7.22 The City's Rangers are in particular well placed to interpret sites to visitors and involve people in various aspects of site monitoring and management.



POLICY twenty four

The City Council will promote awareness, understanding and enjoyment of wildlife in the City.

This policy will be implemented by:

Publishing information on the location and value of sites of quality to which the public have access.

Arranging special events for children, women and others with special needs as part of the Ranger Service's programme of activities.

Raising awareness by organising exhibitions, participating in themed events like National Tree Week, and publicising projects.

ENVIRONMENTAL EDUCATION

3.7.23 Peoples' knowledge and understanding of the natural world are key factors in shaping their attitudes and responsibility towards it and their enjoyment of it. Environmental education can play a vital role in building up knowledge and skills, helping people to make informed decisions in relation to nature conservation and enabling them to look after the environment.

3.7.24 Environmental education continues throughout peoples' lives, but the formal education system of school, college and university (which involves more than 200,000 people in Birmingham) and also training for and at work, is critically important in developing awareness of the environmental impact of human activities. This is particularly so for children and young adults who will be the future guardians of our natural heritage. They can also serve as 'educators' of today's adult stewards. Environmental education is a cross-curricular theme in the National Curriculum, enabling the natural world to be a part of every child's education.

3.7.25 Environmental education in Birmingham takes place in many forms in the public, voluntary and business sectors via a wide range of services, resources, and activities. The emphasis given to nature conservation is equally varied.

3.7.26 The City Council has an important role in the delivery of environmental education, with several departments playing a part. Their work includes:

- The Education Department - operates a

Schools Advisory Service, a Curriculum Support Service and runs a number of environmental education day and residential centres, for example the Martineau and Springfield Environmental Studies Centres. The latter is a centre for special needs children. The Environmental Awareness Advisory Teacher, within the Curriculum Support Service, runs teachers' courses (for example on management of school grounds) contributes a regular 'Environmental News Diary' to the Council's Education Bulletin, has produced a directory on sources of environmental information and assists schools in the development of nature conservation areas in their grounds. The Department also works closely with colleges and the Birmingham Training and Enterprise Council with regard to adult education.

- The Department of Leisure and Community Services - its Parks and Nature Conservation Division operates a ranger service, offering direct environmental awareness training with schools, the voluntary sector and the public; a Landscape Practice Group offering a consultation and design service for school grounds/conservation areas; adult education courses at Kings Heath Park Training School plus linked courses with other colleges; and provides a range of interpretive and information facilities on sites throughout the City. The library service offers visual teaching aids, environmental resources for students and a local history archive for the public. The Youth Community and Play Division has produced an Environmental Project Pack detailing youth service projects across the City. The Museum and Art Gallery offer services based on the National Curriculum.

- The Department of Planning and Architecture - undertakes and promotes a range of environmental activities within schools.

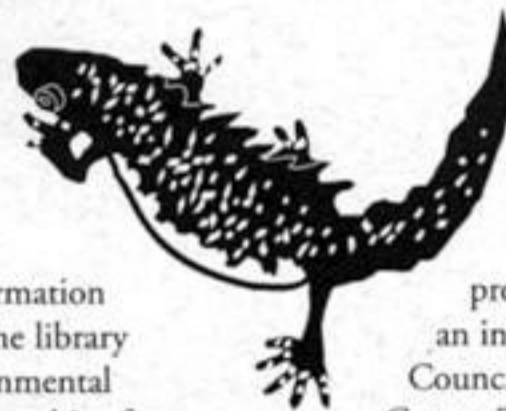
- The Environmental Services Department - operates a Recycling Campaign, working through both primary and secondary schools.

3.7.27 The City's three universities - The University of Aston in Birmingham, The University of Birmingham and the University of Central England - offer a range of specialist courses at undergraduate and postgraduate levels, many incorporating a nature conservation component. They also offer opportunities for joint pupil and student projects.

The City Council's Birmingham Curriculum Statement fully supports environmental education linking it to practical action, such as nature conservation and greening projects.

3.7.28 Within the voluntary sector, various organisations supply schools with resource materials, while others run their own environmental education centres. An example is Urban Wildlife Trust's Centre of the Earth project at Winson Green, which offers a programme based on structured play and the arts. A range of other bodies, including British Trust for Conservation Volunteers, WATCH, and the Birmingham Association for Environmental Education, provide educational services and programmes for both students and teachers. Groundwork Birmingham and Learning Through Landscapes are involved in work in school grounds.

3.7.29 In the private sector, a number of companies undertake environmental educational activities for their employees. In addition interest has been shown in sponsoring curriculum development or providing facilities, as in the case of Severn Trent Water's Environmental Education Centre at Minworth and the National Grid's Centre at Bishop's Wood near Stourport.



3.7.30 Co-ordination of, and liaison between, the wide range of providers is at present organised largely through an informal network, supported by the City Council's Environmental Education Co-ordination Group. The City's Environmental Forum, also serves to link providers, while the Environmental Awareness Advisory Teacher, West Midlands Environment Network and the Midlands Environment Business Club also have a role in networking.

3.7.31 The City Council's Birmingham Curriculum Statement fully supports environmental education linking it to practical action, such as nature conservation and greening projects. The Education Department encourages schools to maximise the use of resources in their neighbourhood, and to work with other Council departments and voluntary groups.

3.7.32 Birmingham's Green Action Plan identifies community involvement and education as key objectives. It states: 'Ensuring that everyone understands environmental issues must become a basic element of the education process for both children and adults'. The Plan sets out details of the City Council's commitment to environmental education, as part of the overall process of promotion and awareness.

3.7.33 The following policy and proposals for action specifically address nature conservation issues, within the policy context set for environmental education generally.

"GREEN ACTION PLAN" POLICIES

There is an increasing level of environmental awareness amongst the general public. The Council will harness that interest and increase public environmental awareness in the following ways (including):-

- Stimulate educational establishments to improve awareness of environmental issues.



- Use public buildings such as museums, heritage sites, botanical gardens, parks and nature centres to promote environmental awareness.

The importance of education in the development of environmental awareness cannot be overstated and should be an integral part of school curricula from primary level onwards.

Birmingham's Corporate Action Programme 1993/94

POLICY twenty five

The City Council will seek to ensure that nature conservation, including practical activities linked to the nature conservation resource, continues to play an important part in the environmental education elements of school, college and adult education centre curricula, in extra-curricular activities linked to the formal educational system and in workplace educational programmes.

POLICY twenty six

The Council will encourage the voluntary and private sectors to play a full and active part in the delivery of nature conservation related, environmental education services.

These policies will be implemented by:

Enhancing communication and co-ordination between providers of environmental education services in all sectors and nature conservation service providers.

Considering the contribution the Nature Conservation Policy Group could make to environmental education provision within the City.

Encouraging schools to make use of local sites of quality for curriculum projects involving practical conservation or site study.

Reviewing the profile of nature conservation within environmental education services delivered by the City Council, including resource material, teachers' courses and conferences, the "Education Bulletin", the environmental directory and the content of adult education courses and youth service projects. Services in relation to nature conservation will continue to be provided to at

least current levels subject to the findings of this review. Ensuring the provision of up to date information such as the "Directory of Sources of Environmental Information".

Continuing to give encouragement and advice to schools setting up nature conservation areas within their grounds or neighbourhood.

Encouraging the preparation of management plans for all school conservation areas.

Encouraging schools to adopt and manage local sites for nature conservation purposes.

Inviting schools to prepare, and periodically review, a School Environmental Action Plan. This to include nature conservation targets in respect of policy development, global issues within the curriculum, school grounds enhancement, community and neighbourhood participation, purchasing and recycling.

Promoting the use of environmental study centres, both in and out of the City.

Developing Birmingham Nature Centre as the major educational resource for nature conservation in the City.

Establishing and supporting new WATCH clubs in partnership with The Wildlife Trusts, Urban Wildlife Trust and other local wildlife trusts as appropriate.

Developing a teaching programme and associated resources in relation to the species control and pollution control activities of the Environmental Services Department, for both primary and secondary schools.

Encouraging joint nature conservation projects between universities and schools.

PARTICIPATION AND EMPOWERMENT

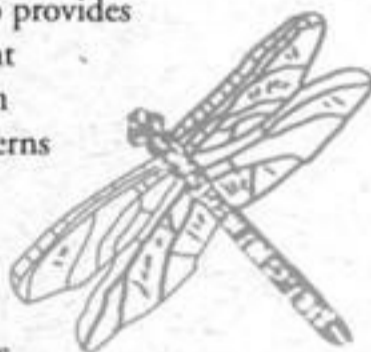
3.7.34 Everyone consumes environmental resources. For instance, we all live and work in buildings standing on what used to be open land. But many people are also stewards of environmental

and nature conservation resources, be they as small as a window box or as large as the grounds of a school or hospital. The issues and concerns raised in this Strategy are relevant to all, as is the responsibility to act. Having said this people need to know where they might go to discuss these issues, and what they may be able to do to help.

3.7.35 The UK Strategy on Sustainable Development asks local government to encourage the involvement of local communities, particularly women and youth, in the Local Agenda 21 programme.

3.7.36 The City Council is already committed to action. The Environmental Forum regularly attracts over 100 people from a wide range of public, voluntary, academic and private sector organisations. It has been a great success in nurturing debate and forming partnerships for action.

3.7.37 Several community based conservation groups are now established. They protect and care for a number of sites of quality, for example in the Cole Valley and Moseley Bog. These groups meet as the Association of Birmingham Conservation Groups (ABC Group) and are supported with advice and technical aid by Urban Wildlife Trust. Nature conservation also provides many more individuals, resident and community groups with an opportunity to turn their concerns into action, whether it be to sustain the value of a local site or to improve the back garden for wildlife. Anybody who gardens without the use of chemicals and in such a way as to encourage wildlife is making a contribution to the achievement of this Strategy's objectives.



3.7.38 Nature conservation in the City is both an opportunity and a constraint for businesses. Many of them earn their living by providing environmental services, such as surveying, planning and design. Others, such as the visitor and tourist industries, depend upon an attractive environment. The private sector has a role to play in implementing this Strategy through changes in its decision making, purchasing, procedures and management of land.

3.7.39 The City Council recognises that it is relatively easy to stimulate interest and involvement amongst individuals, groups and businesses. It is more difficult to provide the support needed to sustain that interest through, for example, providing training, funds and materials, or giving advice. Long term plans are needed, not only for managing and monitoring projects, but also to sustain peoples' involvement.

3.7.40 The City Council has a key role in this process of participation and empowerment (helping people to help themselves). It must, however, be supported by a wide range of other organisations able to work with community groups, commercial and industrial companies and others. This

type of help is called community technical aid. It has to be honest, flexible, responsive to varying interests, tailored to achieving realistic targets and provided in an appropriate way.

3.7.41 The benefits of involving communities in environmental action are many:

- A more precise definition of a problem or opportunity by those most affected by it;
- A sense of shared ownership of the project;
- A chance to plan for a solution where everybody gets some satisfaction;
- Greater efficiency in the use of - often scarce - resources;
- An opportunity to transfer skills and knowledge so developing personal skills and knowledge in others;
- Building confidence in people new to environmental action that will motivate them to sustain their interest and take on new initiatives in the future;
- Satisfaction from having been able to do something that may have made a difference.

3.7.42 While there is no shortage of groups already involved in environmental projects, there is a shortage of skilled people in agencies such as Groundwork Birmingham Urban Wildlife Trust, British Trust for Conservation Volunteers and the private sector who could help them. The Know-How Network, based in Birmingham, is attempting to develop the network of community technical aid agencies serving the West Midlands counties, including Birmingham. A list of useful contacts is given in the Appendix.



POLICY twenty seven

The City Council will continue to promote the interest and involvement of local people in wildlife issues and projects.

This policy will be implemented by:

Continuing to convene The Environmental Forum.

Seeking to support those organisations within and outside the City Council which inform and involve people in nature conservation in the City.

Promoting and consulting on nature conservation issues through Ward Sub-committees, local area offices and libraries.

Consulting voluntary, residents and community groups, and individuals, on planning applications affecting sites of quality and land in the strategic open space network.

Continuing to involve wherever possible local people in the preparation of management plans.

Providing advice regarding nature conservation grant and award schemes to voluntary residents' and community groups.

Reviewing City Council resources available to voluntary, residents' and community groups.

Publicising management activities (such as tree felling) or changes in management (such as reduced mowing) on Council owned land.

Encouraging gardening for wildlife.



3.8. INFORMATION BASE

3.8.1 Birmingham's nature conservation resource cannot be effectively protected or managed without comprehensive, accurate and up-to-date information on where it is, its status and how it is changing. There is a need also for data on pollution as it affects wildlife and the places where it lives (see 3.9.)

3.8.2 It is also necessary to understand people's changing needs in relation to nature conservation if those needs are to be met. People also need good information on what is available in the City, whether it be on sites of quality, the open space network or environmental education (see 3.7)

ECOLOGICAL DATA

3.8.3 The best available information on Birmingham's nature conservation resource are the Phase 1 and Phase 2 ecological surveys carried out on behalf of the City Council primarily by the Urban Wildlife Trust between 1986 and 1990. These provide extensive data on sites, habitats, plant and bird species within the City. The Phase 1 survey covered every parcel of land over 0.5ha (excluding improved grassland and agricultural land). Habitats were mapped at a scale of 1:2,500. The Phase 2 survey revisited the best Phase 1 sites and added species and other information.

3.8.4 The information is held on EcoRecord, the Ecological Database for the Black Country and Birmingham. This was set up by the five local authorities concerned, with the West Midlands Joint Data Team, English Nature and Urban Wildlife Trust in 1991. It holds on computer the survey information and other data, for example from English Nature. It can provide information, analysis and interpretation of the records it holds. Further information on the City's nature conservation resource, particularly on birds, mammals and certain groups of insects, has been gathered from local experts in the preparation of this Strategy.

3.8.5 The City Council, in common with the conservation agencies, recognises that there are gaps in knowledge. The Phase 1 and 2 surveys did not cover sites below 0.5ha, and excluded some types of land-use, including parks, public open spaces, allotments, domestic gardens, school grounds, cemeteries, churchyards and arable farm-land. As a result we know little, for example, about residential and recreational parkland. Information on the exact extent of certain habitats, such as hedgerows and arable farmland, is also limited. With species we know little about fish, most invertebrates, fungi and lower plants like mosses. Even the species records we do have tell us little about distribution or population numbers. (See 3.4.)



3.8.6 Other concerns include for example the recent boundary changes which have brought new land into the City, particularly in the Frankley area, which has not been surveyed.

3.8.7 The need to address these gaps, in respect of areas, sites, habitats and species, is acknowledged. The City Council also recognises the value of reviewing and updating existing data and of linking both processes to the Critical Natural Capital sustainability limits, Constant Natural Assets thresholds, habitat and species action plans and Biodiversity Schedule described earlier in the Strategy (see 3.2, 3.3, 3.4), as well as to site management (see 3.6).

3.8.8 The Council and EcoRecord, together with voluntary and community groups (especially Urban Wildlife Trust) individual experts, statutory agencies and others, all have a role in implementing surveys and collecting data to address the gaps. As it develops, EcoRecord will play an increasing part in helping to promote and increase awareness of the City's wildlife through dissemination of the data it holds (see 3.7). It will also help to monitor the impact of implementing policies in The Birmingham Plan and this Strategy, and those related to Local Agenda 21.

SOCIAL DATA

3.8.9 People who use and care about natural open spaces in the City can provide valuable information. For example they can help to identify where there is unmet demand for access, key issues of concern and the features people value most highly. The information can then be used by planners and managers to help identify priorities and target action and funds for improvements. The Audit Commission and Agenda 21 urge local authorities to find out what local people want and involve them in planning and implementing environmental action.

3.8.10 The Survey (see 3.7.) has provided information on the views of those who are most interested in the City's wildlife. It does not tell us, however, what people think about individual sites. When the City Council embarks on a project it is valuable to collect appropriate social, ecological and landscape information, before finalising plans. Surveys, group discussions and interviews with local residents can all be used to find out why a site may or may not be valued, who uses it, the benefits and problems for people using

it, suggested improvements, its social and ecological history, and its educational value. Maps can be made which show where the most used areas are within a site, and whether there is any conflict with ecologically sensitive areas. The very act of collecting such information tends to generate an interest from local people.

3.8.11 Social criteria are becoming more influential when evaluating SSSIs and SINCs. Birmingham may be one of the first local councils to test such criteria in relation to wildlife sites. Social information is also proving to be an important factor for Planning Inspectors in determining whether or not sites of quality should be protected from development. Information on the value and use of a site as expressed by local people has proved influential in the past.



POLICY twenty eight

The City Council will seek to maintain, develop and regularly update a comprehensive and accessible information base covering sites, habitats, species and geological features both within Birmingham and on Council-owned land outside the City boundary.

POLICY twenty nine

The City Council will seek to monitor the City's nature conservation resource in relation to Critical Natural Capital sustainability limits, Constant Natural Assets thresholds, habitat and species action plans and the City's Biodiversity Schedule, and take action as necessary and appropriate to meet and where possible exceed defined aims.

These policies will be implemented by:

Continuing support for EcoRecord

Resurveying and reassessing as a priority: a) all SLINCs identified as potential SINCs, b) ancient woodlands not already designated as SINCs.

Surveying and assessing additional sites as they arise.

Carrying out a 'Phase 1' survey of all undeveloped land in new areas of the City, and not surveyed in the 1986-1990 survey with particular attention to parks, public open spaces, allotments and cemeteries.

Involving schools and the Education Department in setting up a school grounds database.

Identifying, surveying and assessing potential geological sites of quality.

Organising a rolling programme of survey, monitoring and review of sites of quality, special habitats and rare, protected, threatened and declining species, linking this to redesignation as appropriate.

Seeking to survey the City to Phase 1 and 2 levels at least once every 10 years.

Researching the extent of hedgerow, arable, residential parkland and recreational parkland habitats within the City.

POLICY thirty

The City Council will periodically collect information on how people value wildlife in the City, and the demand for access.

POLICY thirty one

The City Council will seek to collect and encourage others to collect social information on sites.

These policies will be implemented by:

Repeating the People and Wildlife Survey to monitor the impact of the Strategy on peoples' perceptions of the nature conservation resource and the strategic open space network. Developing and adopting a method of site survey which includes means of collecting social information.

3.9 NATURE CONSERVATION AND THE WIDER ENVIRONMENT

3.9.1 The protection, enhancement, enjoyment and promotion of the City's nature conservation resource does not take place in isolation. The actions of the City Council and others, in respect both of nature conservation and other activities, may also have an effect on the wildlife of other places, for example through the use of non-renewable resources. Equally, there may be implications for the City's own wildlife because of activity elsewhere such as pollution from industry.

Pollution, whether of land, air or water, which may not be directly damaging to people, can have a great effect on wildlife.

3.9.2 The City Council recognises the need to address the environment both comprehensively and corporately. To do this it has prepared Birmingham's Green Action Plan. Both the objectives and immediate action plans set out in Birmingham's Definitive Strategy for the Environment, part of the Green Action Plan, reflect the need to co-ordinate action on a number of fronts.

POLLUTION

3.9.3 Pollution, whether of land, air or water, which may not be directly damaging to people, can have a great effect on wildlife. Acid rain, for example, which may result from local activities, may cause damage to the City's trees and woodland, and leaks of poisons or chemicals may kill water life.

3.9.4 Much of the responsibility for dealing with pollution lies with other agencies, but the City Council still has an important role to play. This is especially the case in monitoring, liaison and public awareness, use of chemicals in land management and development control (see 3.8, 3.7, 3.6 and 3.5). The Council's policy aim in respect of pollution is set out in the provisions of the Green Action Plan.

3.9.5 The following policy and proposals for action seek to address nature conservation issues within the policy context set for pollution generally.



GREEN ACTION PLAN' POLICIES The Council is committed to minimising pollution within the City, by regulation and the promotion of good practice and awareness, to protect the environment and citizens from the adverse effects of pollution.

We will minimise pollution by:-

- i) Promoting good practice.
- ii) Appropriate regulation.
- iii) Monitoring emissions to establish a data base against which progress can be judged.

Birmingham's Corporate Action Programme 1993/94. Page 19.

POLICY thirty two

The City Council will, in conjunction with other agencies, seek to reduce existing pollution and ensure that new pollution is kept to a minimum, having particular regard to its effects on the City's nature conservation resource.

This policy will be implemented by:

Liaising with other statutory pollution control agencies.

Operating the development control system.
Minimizing the use of biocides and fertilizers.

Considering the re-establishment of the Use of Chemicals Working Group.

Enforcing the law relating to fly-tipping.

NON-RENEWABLE RESOURCES.

3.9.6 Buying and using non-renewable materials may contribute to the destruction of nature conservation resources outside Birmingham, in both the UK and the rest of the world. Two well known examples are the use of peat and tropical hardwoods, but many other products are involved.

3.9.7 The City Council has taken steps to address this issue, and minimizing the use of non-renewable resources is now a firm objective of the Green Action Plan as set out in 'Birmingham's Definitive Strategy for the Environment'. One of the Strategy's immediate action plans is the carrying out of product environmental impact assessments. The Council's policy aim in respect of green purchasing is set out in the Green Action Plan.

3.9.8 The following policy and proposals for action seek to address nature conservation issues within the policy context set for non-renewable resources generally.

“GREEN ACTION PLAN” POLICIES

To move to a position where all purchases made by the Council will reflect our desire to protect and improve the environment. We will carry out a series of product impact assessments including the way products are used, manufactured, transported and disposed of. We will use the buying power of the Authority to press manufacturers and suppliers to make more environmentally friendly products available at an acceptable cost. We will (for example):

- encourage departments to purchase environmentally friendly products.

Birmingham's Corporate Action Programme 1993/94.

POLICY thirty three

The City Council will seek to minimise the use, by itself, its contractors and others, of non-renewable resources, the exploitation of which is known to be damaging to nature conservation interests.

This policy will be implemented by:

Working through the specialist team advising on green purchasing.

Undertaking assessment of, and providing advice about, products, including peat, timber, paper, building and road surfacing materials.

Establishing a network for product testing with other local authorities pursuing similar policies.

Encouraging further development of organic growing methods at allotments and leisure gardens.

Continuing to research viable solutions to the problems of recycling green waste, for example chippings from tree operations and leaves in City-owned parks.

3.10 ORGANISATION AND ADMINISTRATION

3.10.1 The Strategy's sustainability, biodiversity, protection, enhancement, awareness, information and other provisions will each be implemented by actions tailored to address detailed needs, as set out in the previous sections.

3.10.2 There are in addition a number of general actions (listed below) which will contribute to implementation in all areas of the Strategy. These address issues of City Council expertise in nature conservation, staff skills and training, internal and external consultation, internal and external awareness of the City's nature conservation resource, and review and amendment of Council plans and policies. The responsibilities of other organisations are also considered.

Establishing and developing primary sources of nature conservation knowledge and expertise within the City Council:

a) Establishing the Department of Planning and Architecture Department as the primary source of information in respect of planning, land use and development, which will hold and maintain the Council's information base on the City's nature conservation resource. This function would relate well to the Department's existing information responsibilities and expertise.

b) Establishing the Department of Leisure and Community Services as the primary source of information in respect of land management, promotion and advice.

Introducing procedures to ensure that all City Council departments are aware of the location of sites of quality, the strategic open space network and Wildlife Action Areas in the City, as identified on the Strategy Map.

Informing all statutory undertakers and public utilities of the location of sites of quality and the strategic open space network within the City, as identified on the Strategy Map.

Continuing the City Council's policy of consulting on nature conservation issues with the relevant external bodies whenever the need arises, and establishing clear procedures for consultation with sources of nature conservation knowledge and expertise both within and outside the City Council, such as English Nature and Urban Wildlife Trust.

Continuing to recognise nature conservation as an important service provision.

Seeking to ensure that all sectors (both the City Council and others) continue to work towards an integrated approach to the environmental management of the City's resources, and that they continue to review their procedures in respect of recruitment, continuing professional development and training to ensure best practice.

3.11 CO-ORDINATION, MONITORING AND REVIEW

3.11.1 The preparation of this Strategy represents the beginning of a new era for the conservation of the City's natural environment, but it is only a beginning. If the Strategy is to be effective, it needs to be co-ordinated, monitored and reviewed.

3.11.2 It is also important that the Council, the private sector, voluntary and community sectors and statutory agencies, plus neighbouring authorities and others, co-operate in sharing information and in joint action.

3.11.3 The City Council is firmly committed to corporate action for the environment, but it has to strike a balance between this and legal and other policy considerations, and other factors mentioned in this Strategy. The City Council's Environmental Forum provides opportunities for networking, informing and debating with other agencies in relation to nature conservation activities.

ROLE OF THE NATURE CONSERVATION POLICY GROUP

3.11.4 The City Council's Nature Conservation Policy Group will have a primary role in implementing the Strategy. This Working Group includes officers of key Council departments, English Nature, the Countryside Commission, Environment Agency, Groundwork Birmingham, Urban Wildlife Trust and the Association of Birmingham Conservation Groups. It is perfectly placed to develop, guide and monitor an Action



Programme, to help implement the Strategy and to monitor the effectiveness of Strategy policies. It may also be able to assume a co-ordinating role with other agencies.

3.11.5 Timetables and targets within the proposed Action Programme will be the responsibility of the Nature Conservation Policy Group. The City Council recognises the need to set broad and realistic timescales for the achievement of each action point, relative to the resources available, the urgency of the action required and the speed with which that action can reasonably be taken. In some cases, the action will be continuous, while in others a target date will need to be set. Timescales may also be dictated by other programmes such as the review procedures for The Birmingham Plan.

3.11.6 The Staffordshire and West Midlands Heathland Project, the Beacon Regional Park, the Environmental Education Coordination Group, EcoRecord Steering Group and other internal and external consultative bodies, such as the West Midlands Canal Forum and West Midlands Environment Network, offer additional potential for effective co-ordination and monitoring in respect of specific areas of nature conservation work.

POLICY thirty four

The City Council will co-ordinate the implementation of the Birmingham Nature Conservation Strategy, working corporately and in co-operation with outside agencies.

The City Council will monitor the implementation of the Strategy, and will review and update its provisions as necessary and appropriate.

These policies will be implemented by:

Reviewing and redefining the role of the Nature Conservation Policy Group, and if appropriate expanding its membership to embrace other key agencies involved in nature conservation in the City.

Maintaining and developing joint working with a range of groups, agencies and neighbouring authorities, on both site and topic based nature conservation initiatives.

Monitoring and reviewing Strategy policies, principles and guidelines every five years.

Monitoring the Strategy's implementation.

Producing an action programme every year.

4. GUIDELINES FOR ACTION

4.1 INTRODUCTION

4.1.1 A Strategy like this can only be successfully put into action if all sections of the community play their part. Everyone can do something to help Birmingham's wildlife and to look after the places where it lives. Every City Council department, school, private company, public service, community group and development agency can play its part. This section gives some ideas to help people take effective action. Many of the ideas are simple and do not mean spending a lot of money. They do not cover everything which may be done, but it is hoped that they will guide people towards the many things which may be done.

4.2 INDIVIDUALS

- Gardens can be valuable habitat for wildlife. Include plants that will provide food and cover for birds, mammals and insects; a pond; a bird table and bird bath if you cannot have a pond; a wood pile; and an undisturbed area for animals to shelter and hibernate.
- Reduce your use of chemicals in the garden and in the home, use a compost heap and garden organically.
- Enjoy the natural open spaces in your area and find out more about them.
- Alert the City Council or Urban Wildlife Trust if you are concerned in any way about a natural open space in your area, for example about its condition or future use.
- Consider getting together with friends and neighbours to look after a natural open space in your neighbourhood.

4.3 COMMUNITY GROUPS

- Carry out a survey of your local area; get to know the places that might be good for wildlife and people and where there might be opportunities to improve or create others.
- Discuss with neighbours what they think about the local natural open spaces, and what their needs may be for access to such places.
- If you feel action is needed on a local site, contact the City Council, Urban Wildlife Trust, other wildlife group or residents' association who will be able to help you plan what you want to do, and provide advice on where you may be able to get help and funds.
- Keep a watch on your local nature conservation sites and alert the City Council, Urban Wildlife Trust, other wildlife group or residents' association if

you are concerned in any way about a natural open space in your area, for example its condition or future use.

4.4 VOLUNTARY GROUPS

- Consider what your organisation could do to contribute to the implementation of the policies in this Strategy such as working on site based projects; working with community groups, children, people with special needs; ecological survey; growing plants or making nest boxes, seats and other items from recycled materials; providing training; using the natural open spaces as venues for events to introduce your members to wildlife in Birmingham.
- Go to the City Council's Environmental Forum and consider joining West Midlands Environment Network. Working in partnership with other organisations can often achieve more than working alone.
- Promote awareness, involvement and enjoyment of nature conservation in Birmingham. Campaign to protect and enhance nature in Birmingham's. Seek to work in partnership with others and share skills and knowledge with them.



4.5 DEVELOPERS

- Before buying land ascertain its nature conservation value: seek to retain and incorporate natural features in new developments.
- Features and habitats earmarked for retention should be fully protected before, during and after development works.
- Seek expert advice early in a scheme to assess the likely impact on the City's nature conservation resource - for example bats in roof spaces or holes in trees, or the implications of blocking badger tracks.



- Where a landscape scheme is required as part of planning permission try to create new habitats: plant trees and shrubs, if possible, from local seed sources or create ponds. Avoid simply putting down rye grass and planting exotic trees.
- If you own vacant sites try to leave existing vegetation, or plant up a low cost urban forestry scheme and allow for natural regeneration.

4.6 BUSINESS SECTOR

- Find out the wildlife value and potential of your land (see Strategy Map) and ensure its wildlife interest is retained by appropriate management. Seek expert advice from the City Council or other specialists.
- Enhance the nature conservation value of your land by habitat creation: plant trees, shrubs and flowers; create a pond and introduce a bird bath and bird table.
- Provide signs, seats and paths to encourage your employees and clients to enjoy the wildlife in your grounds.
- Consider how through your training programmes, you might help to raise employee awareness and give practical help to protect and enhance the wildlife in the City.
- Make use of venues set within natural open spaces for business meetings to impress on clients the green qualities of Birmingham.
- Consider joining the Midlands Environment Business Club and network with other businesses with an interest in nature conservation in the City.
- Make the skills and knowledge of your employees available to community groups engaged in local environmental action.



- Sponsor events, awards and competitions to generate ideas and practical action for the local environment.

4.7 PRIVATE LANDOWNERS

Find out the wildlife value of your land (see Strategy Map) and ensure that its wildlife interest is retained by appropriate management. This may mean, for example, a less intensive mowing regime. Seek expert advice if necessary, from the City Council or Urban Wildlife Trust or other wildlife group or an environmental consultant.

Enhance the conservation value of your land by habitat creation: a new pond, or additional planting of trees and shrubs from local seed sources.

If you know that your land has a high nature conservation value, consider managing it for nature conservation. The City Council or other specialists can give advice. If possible, allow access by the local community or schools to some of your land. Where land has to accommodate active use by people, such as sports grounds, then consider integrated management to allow the site to be enhanced for nature conservation, while retaining its main function.

4.8 GOVERNMENT DEPARTMENTS AND SPECIAL ENVIRONMENTAL AGENCIES

Provide advice and information on wildlife issues for landowners, local communities and the City Council (especially relevant for agencies with specialist conservation staff such as English Nature, The Environment Agency and British Waterways).

Have as an objective the support of urban nature conservation. The majority of people live in urban areas and they should have easy access to areas of nature conservation value.

Provide sponsorship and grant aid for nature conservation projects. Ensure that your land is managed using good conservation principles, including, where appropriate, low-input management to allow habitat development.

4.9 STATUTORY UNDERTAKERS

- Find out the location of wildlife sites in your area from the City Council (see Strategy Map) and make sure this information is passed onto relevant staff.
- Liaise with the City Council or English Nature when planning to carry out work which may affect sites of nature conservation value.
- Manage your own sites to enhance or create wildlife value, for instance by appropriate management and additional planting of trees and shrubs grown, if possible, from local seed sources.
- Adopt codes of conduct within your organisation for work on sensitive sites (see 3.5).

4.10 MANAGERS OF PUBLIC BUILDINGS

Hospitals, churches, community centres, schools and other public buildings are often set in their own grounds. Find out the wildlife value of your grounds and ensure that it is protected, enhanced and enjoyed by your visitors (see Strategy Map).

- Consider habitat creation by planting new trees, shrubs and flowers, creating a pond and introducing bird baths or bird tables.

- Consider the potential for establishing part of your grounds as a nature reserve and allowing extra access to local schools and residents in addition to your usual visitors.
- Provide signs, steps, seats and paths to encourage visitors to enjoy the wildlife in your grounds.



4.11 USEFUL READING.

Baines, C (1986) *The Wild Side of Town*. BBC Publications, London.

Carter, L (1990) *Green It Yourself: A DIY Handbook for Urban Wildlife Conservation*. RSNC, Lincoln.

Chinery, M and Teagle, W (1985) *Wildlife in Towns and Cities*. Hamlyn, Feltham.

Dawe, G (1990) *The Urban Environment: A Sourcebook for the 1990s*. Centre for Urban Ecology, Birmingham.

Emery, M (1986) *Promoting Nature in Towns and Cities*. Croom Helm, London.

King, A and Clifford, S (1985) *Holding Your Ground: An action guide to local conservation*. Temple Smith, Hounslow.

Johnston, J (1990) *Nature Areas for City People*. London Ecology Unit, London.

Lutley, W (1992) *Making Space: Protecting and creating open space for local communities*. Open Spaces Society, Henley.

GLOSSARY

Ancient Woodlands - Land which has been permanently wooded since at least 1600.

Agenda 21 - action plan for local and central governments, international organisations and businesses to protect the environment (prepared at the UNCED Earth Summit).

Archaeological Sites - Sites constituting earth-works, remains under the soil surface, urban remains under existing towns, certain buildings and monuments, and items of historical or industrial interest.

Compulsory Purchase Order - An order made on an area of land in order to enable an authority to purchase compulsorily the land for an approved purpose.

Local Nature Reserve - Statutory reserve designated for educational and amenity purposes by the local planning authority in liaison with English Nature.

Management Agreement - An agreement between two or more parties to voluntarily adhere to an agreed course of action usually in return for some form of compensation, consideration or practical assistance.

National Nature Reserve - Reserves that contain some of the finest wildlife habitats and geological features in Britain. These reserves are declared and managed by, or in association with, English Nature.

Red Data Books - Publications drawing attention to the status of the rarest and most threatened animals and plants in Britain.

Sites of Importance for Nature Conservation - Non-statutory designation for sites of county or district interest identified by English Nature.

Sites of Local Importance for Nature Conservation - Non-statutory designation for sites of nature conservation interest of lower quality than SINC, identified by Urban Wildlife Trust.

Sites of Special Scientific Interest - Statutory designation relating to sites of interest for their flora, fauna, geological, or physiographical features, notified by English Nature.

Site of Quality - Any SSSI, SINC, LNR or SLINC.

Tree Preservation Order - An order made under Section 198 of the Town and Country Planning Act 1990 to preserve trees of high amenity value and to prevent felling or pruning without the consent of the local planning authority.

Wildlife Action Area - Part of the City where people, on the basis of existing survey data, do not have access to a site of quality within 500 metres of their home.



APPENDIX 2

SITES OF QUALITY FOR NATURE CONSERVATION IN BIRMINGHAM

Site Name	Site Number	Grid Reference	Constituency	EcoRecord Number	Birmingham Plan Policy Number
Sites of Special Scientific Interest (SSSIs)					
Edgbaston Pool	29	SP054841	Edgbaston	BM141	E72
Sutton Park	48	SP098974	Sutton Coldfield	BM143	E7
Local Nature Reserve (LNRs)					
Bromwich Wood	125	SO998811	Northfield	BM125	E94
Hill Hook (proposed)	1	SK105003	Sutton Coldfield	BM001	E2
Merecroft Pool (proposed)	113	SP043787	Selly Oak	BM113	E111
Moseley Bog	89	SP093820	Selly Oak	BM089	E108
Plants Brook Reservoirs	35	SP140922	Erdington/ Sutton Coldfield	BM142	E16
Rubery Cutting/ Leach Green Quarries	52	SP993774	Northfield	BM144	E100
Sites of Importance for Nature Conservation (SINCs) Adopted in The Birmingham Plan					
The Ackers	135	SP104844	Yardley/Small Heath	BM135	E50
Bartley Reservoir	68	SP005812	Northfield	BM68	E93
Birmingham Botanical Gardens	54	SP049851	Edgbaston	BM054	E67
Bromwich Wood	125	SO998811	Northfield	BM125	E94
Cole Valley	132	SP129881-168877	Hodge Hill	BM132	E53
Edgbaston Park Golf Course	84	SP057843	Edgbaston	BM084	E73
Edgbaston Reservoir	56	SP043867	Edgbaston/Ladywood	BM056	E40
Grounds of Woodbrooke	75	SP036814	Selly Oak	BM075	E104
Harborne Walkway	50	SP036850-039870	Edgbaston/Ladywood	BM050	E43
Hill Hook	1	SK105003	Sutton Coldfield	BM001	E2
Jones Wood	23	SP138937	Erdington/ Sutton Coldfield	BM023	E16
King's Norton Playing Fields	104	SP053794	Selly Oak	BM104	E112
Lifford Reservoir	100	SP058799	Hall Green	BM100	E114
Lindridge and Langley Pools	13	SP150969	Sutton Coldfield	BM105	E8
Manor Farm Park / Ley Hill Recreation Ground	73	SP023804	Northfield	BM073	E96
Merecroft Pool	113	SP043787	Selly Oak	BM113	E111
Mill Lane, Northfield	112	SP020786	Northfield	BM112	E99
Minworth Sewage Works	36	SP165920	Erdington/ Sutton Coldfield	BM036	E20
Moor Hall Golf Course	14	SP127978	Sutton Coldfield	BM104	E6
Moseley Bog	89	SP093820	Selly Oak	BM089	E108
Moseley Golf Course Woodland and Pool	98	SP087819	Selly Oak	BM098	E107
Land at New Hall	21	SP130952	Sutton Coldfield	BM021	E13
North of Wychall Lane	109	SP043791	Selly Oak	BM109	E110
Perry Beeches Nature Reserve	37	SP062938	Perry Barr	BM037	E23
Pills Wood, Harborne	62	SP013847	Edgbaston	BM062	E69
Plants Brook Reservoirs	35	SP140922	Erdington/ Sutton Coldfield	BM142	E19
Priory Pool	138	SP098789	Hall Green	BM138	E120

Site Name	Site Number	Grid Reference	Constituency	EcoRecord Number	Birmingham Plan Policy Number
Pype Hayes Park (Plants Brook Watercourse)	21	TSP130925	Erdington/ Sutton Coldfield	BM021	E18
Rubery Cutting and Leach Green Quarries Sandwell Valley:	52	SP993774	Northfield	BM144	E100
Hill Top Farm Grasslands (includes Park Lane Wood)	47	SP037915	Ladywood	BM047	E36
Stocks Wood	77	SP045816	Selly Oak	BM077	E105
Trittiford Pool	102	SP102796	Hall Green	BM102	E118
The Vale, Edgbaston	86	SP053847	Edgbaston	BM146	E68
Meadowland at Walmley	21	SP128934	Sutton Coldfield	BM021	E17
Woodgate Valley Complex:					
Clapgate Lane Woodland	63	SP003827	Northfield	BM063	E89
Meadows between Kitwell Lane /Wood Lane and M5	63	S0991816	Northfield	BM063	E90
Stonehouse Lane Relict Woodland	63	SP144828	Northfield	BM063	E91
Watery Lane	63	S0993832	Northfield	BM063	E88
Woodgate Valley	63	SP005835	Northfield/Edgbaston	BM063	E75
Wychall Reservoir, West Heath	108	SP038792	Selly Oak/Northfield	BM108	E98
Sites of Local Importance for Nature Conservation (SLINCs)					
The Ackers (extension)	135	SP104845		BM135	
Alcester Road Railway Embankment*					
Saltley to King's Norton Railway	90	SP076827		BM090	
Alexander Road Railway Siding	136	SP121836		BM136	
Balaam's Wood	116	SO995784		BM147	
Land adjacent to Bartley Reservoir	125	SO999812		BM125	
Beechwood Hotel	85	SP061845		BM085	
Birmingham and Fazeley Canal	26	SP114902-171928-063871		BM026	
Birmingham Botanical Gardens (extension)	54	SP049851		BM054	
Birmingham Canal	49	SP048874-039881-059868		BM049	
Land off the Bourn	95	SP051813		BM095	
Pond off Bournbrook Playing Fields	94	SP051828		BM094	
Broadhidley Wood	123	SO996825		BM123	
Land off Broad Lane	139	SP068794		BM139	
Brocklehurst Farm Hedge	18	SP155960		BM018	
Woodland off Bromford Drive	126	SP125896		BM126	
Bryony House Wood	74	SP031815		BM074	
Bull's Lane hedges	28	SP151948-151943		BM028	
Bull's Lane Pool*	31	SP153947		BM031	
Callow Brook Hedge	114	SP005776-002779-000779		BM114	
Chad Brook Walkway*	51	SP029857		BM051	
Chinn Brook and land off Chinn Brook*	106	SP066786-086799		BM106	
Cofton Park*	115	SP005761		BM115	
Colehall Farm Sewage Works	132	SP148879		BM132	
Land off Collets Brook	7	SP144989-154963-161969		BM007	
Digbeth Branch Canal	59	SP080874-076880-078868		BM059	
The Dingles (Trittiford Pool Extension)	102	SP098807		BM102	
Edgbaston Grove Woodland	82	SP054847		BM082	
Edgbaston Park Golf Course Woodlands	84	SP057843		BM084	

Site Name	Site Number	Grid Reference	EcoRecord number
Pond off Edgbaston Park Road	83	SP050843	BM083
Elm Road Pool*	78	SP048817	BM078
Pool near Elmwood Church	46	SP050916	BM046
Fairview Farm Hedges	32	SP154948	BM032
Land at Fort Dunlop	27	SP124900	BM027
Fox Covert	30	SP153944	BM030
Fox Hill Road	10	SP136988	BM010
Fox Hollies Park	137	SP122821	BM137
Fox Hollies Road Pond	22	SP147946	BM022
Frankley Lane Hedges	80	SP003807-008808-003806-007808	BM080
Grand Union Canal	57	SP096901-079869-130830-084864	BM057
Gravelly Hill Railway Embankment	25	SP102911	BM025
Griffin's Brook/The Bourn	71	SP040812-044811	BM071
The Grove Hedge	33	SP164947	BM033
Harborne Golf Course	64	SP020837	BM064
Harborne Walkway (extension)	50	SP035848-039870	BM050
Highbury Park, Moor Green	91	SP067824	BM091
Hodge Hill Common	127	SP133889	BM127
Holly Lane Farm and Oxleys Ponds*	19	SP159954-160951-104943	BM019
Home Wood	17	SP133954	BM017
Land adjacent to the Jewish Cemetery	39	SP081931	BM039
King Edward VI Woodland	96	SP067813-066813	BM096
King's Heath Park Pond	97	SP067816	BM097
King's Norton Park	110	SP046792	BM110
Kitwell Substation Embankment	124	SO991816	BM124
Land at Kynock Works	45	SP078918-077918	BM045
Lark Rise Field*	5	SK123002	BM005
Pool off Leahurst Crescent	65	SP035839	BM065
Land at Leyland	111	SP005782-005780	BM111
Lindridge Road Hedge	15	SP145967	BM015
M & B Recreation Ground	55	SP030871	BM055
Manor Farm Park/Ley Hill			
Recreation Ground (extension)	73	SP023804	BM073
Land at Manorial Farm*	3	SK124006-128002	BM003
Merritt's Brook*	72	SP017802-010798	BM072
Mill Lane (extension)	112	SP018784-022787	BM092
Millstream Project	102	SP100839-103792	BM102
Moor Hall Golf Course (extension)	14	SP131985	BM014
Moseley Park and adjacent land	88	SP076827	BM088
New Saltley Pool	58	SP096893-096892	BM058
Oakwood Spinney	20	SP104945	BM020
Oscott College	38	SP095940	BM038
Park Hall Wood	47	SP028912	BM047
Parkhall Wood	130	SP164910	BM148
Perry Hall Playing Fields	44	SP063918	BM044
Perry Park Lake	42	SP067927	BM042
Pitmaston ponds	87	SP066830	BM087
Project Kingfisher	132	SP130880	BM132
Land at Queslett	37	SP061945	BM037
Land at Quinton Meadows	122	SP0995838	BM122
Land adjoining the Radleys	134	SP164858	BM134
Radleys Walk	133	SP157857	BM133
Rectory Park*	16	SP130963	BM016
Redhill Road Hedges	117	SP042768-043772	BM117

Site Name	Site Number	Grid Reference	EcoRecord number
Land at Rednal Hill*	121	SO996766	BM121
River Rea and adjoining land*	92	SP039790-SO987784-SP061830	BM092
River Tame	41	SP047927-032924-058920	BM041
Rubery Hill*	120	SO990779	BM120
Land at Rubery/Hollymoor Hospitals	119	SO997781	BM119
Rubery Lane hedge	118	SO995782-994782	BM118
Scotland Farm Wood	81	SP006805	BM081
Land at Selly Oak	93	SP055826	BM093
Pond off Sellywood Road	76	SP039815	BM076
Senneleys Park	67	SP010825	BM067
Sheldon Country Park*	140	SP051813	BM140
Land at Shenley Court School	69	SP014811	BM069
Woodland off Shenley Fields Road	70	SP028817	BM070
Slade Lane Hedges	11	SP141992	BM011
Springhill Farm Hedge	6	SK129006-134004-031005	BM006
Stratford on Avon Canal	105	SP074792-054795-094792	BM105
Land at Sunderton Road	99	SP072800	BM099
Swanshurst Park Pond	101	SP094815	BM101
Tame Valley Canal	40	SP071926-048932-095904	BM040
Tamworth Road Hedges	9	SP141985	BM009
Twin Ponds Harborne*	53	SP037854	BM053
Vauxhall and Birmingham	60	SP092878-091874	BM060
Village Road Wood	2	SK112002-115012	BM002
Land at Vincent Drive	66	SP041832	BM066
Walmley Ash Road Hedge	24	SP141933	BM024
Land at Warren Road	129	SP104889-101889	BM129
Water Orton Sidings	79	SP166913	BM145
Woodland off Wake Green Road	103	SP096819	BM103
Wheatmoor Wood	8	SP139981-140981	BM008
Wiggins Hill Hedge	34	SP168935	BM034
Withy Hill Road Hedges	12	SP145975	BM012
Witton Boating Lake	43	SP088923	BM043
Wood Brook, Bournville	75	SP036813	BM075
Worcester and Birmingham Canal	61	SP062865-053789	BM061
Land off Worcester lane	4	SK128000	BM004
Land at Wychall Road	107	SP034792	BM107
<i>* Potential SINC</i>			
Sites in City Council ownership and outside, and adjacent to the City Council boundary:			
Castle Bromwich Wetland	128	SP140897	BM128
Lickey Hills	131	SO998755	

APPENDIX 3

SCHEDULE OF ANCIENT WOODLAND

Site Name	Grid Reference	Status
Balaam's Wood	SO995784	-
Boldmere Wood	SP105943	-
Bromwich Wood	SO999811	SINC / LNR
Cooper's Wood	SP128953	-
Culler's Rough (Scotland Farm Wood)	SP006804	SLINC
Darnel Hurst (Sutton Park)	SP098978	SSSI
Gum Slade (Sutton Park)	SP107984	SSSI
Handsworth Wood (Park Lane Wood)	SP028912	SINC
Highbury Wood (River Rea and adjoining land)	SP063825	SLINC
Holly Hurst (Sutton Park)	SP106962	SSSI
Jones Wood	SP138937	SINC
Lady Wood	SP109974	-
Lower Nut Hurst (Sutton Park)	SP105969	SSSI
Malthouse Farm Wood	SP080798	-
Moseley Golf Course Woods	SP087818	SINC
Osier Bed (Lindridge & Langley Pools)	SP148971	SINC
Parkhall Wood	SP164910	-
Pool Hollies (Sutton Park)	SP102983	SSSI
Reddicap Heath Wood (Home Wood)	SP133954	SLINC
Rubery Hill Woods	SO995777	-
Streetly Wood (Sutton Park)	SP089988	SSSI
Upper Nut Hurst (Sutton Park)	SP103973	SSSI
Vicarage Wood	SP029837	-
Wheatmoor Wood	SP139981	SLINC
Woodgate Wood (Broadhidley Wood)	SO997825	SLINC

NB – These are the ancient woods still in existence within the City boundary taken from the table on the Current State of the Woods in English Nature's "West Midlands Inventory of Ancient Woodland", and as shown on the maps in the Provisional English Nature Inventory (1988) and the b1 edition of the OS 1:50000 map no.139.

NB2 – Names in brackets are used in the list of Sites of Quality for Nature Conservation in Birmingham.

APPENDIX 4

RARE AND PROTECTED SPECIES

(NB * = Noted as being very close to the City boundary, or the record is ambiguous as to whether or not the species is actually in the City, e.g. at "Minworth" or "in the Sandwell Valley".)

A) RARE SPECIES

PLANTS

Bluebell

ANIMALS

Insufficient information available

BIRDS

Arctic tern *
Barnacle goose
Barn owl
Common scoter
Curlew
Gadwall
Grey partridge
Grey plover *
Golden plover
Lapwing *
Little tern *
Merlin
Oystercatcher
Peregrine falcon
Pochard
Redshank
Ringed plover
Sandwich tern
Scaup
Shelduck
Shoveler
Teal
Wigeon

Most of the birds on this list are taken from English Nature's list of "high priority" birds, and reported as occurring in Birmingham in the West Midlands Bird Club Annual Report 1992 (latest available).

AMPHIBIANS AND REPTILES

Insufficient information available

INSECTS

Insufficient information available

OTHER INVERTEBRATES

Insufficient information available

B) PROTECTED SPECIES

PLANTS

Floating water-plantain

ANIMALS

Badger

All bats - known records for:

Pipistrelle
Brown long-eared
Noctule
Daubenton's
Leisler's
Whiskered
Natterer's

BIRDS

Black redstart
Kingfisher

AMPHIBIANS AND REPTILES

Adder
Common frog
Common toad
Grass snake
Smooth newt
Great crested newt

INSECTS

Insufficient information available

OTHER INVERTEBRATES

Insufficient information available

APPENDIX 5

CONTACTS

Association of Birmingham Conservation Groups
36 High Meadow Rd
Kings Norton
Birmingham B38 9AR

Birmingham Association for Environmental Education
Chapmans Hill School Farm
Romsley, Halesowen
West Midlands B62 0HB

Birmingham Botanical Gardens
Westbourne Road
Edgbaston
Birmingham B15 3TR

Birmingham for People
Unit 6a, Devonshire House
The Custard Factory, High Street, Deritend
Birmingham B12 0LP

Birmingham Museum & Art Galleries
Chamberlain Square
Birmingham B3 3DN

Birmingham Natural History Society
80 Middle Park Road,
Selly Oak
Birmingham B29 4BS

Birmingham Nature Centre
Persore Road
Edgbaston
Birmingham B5 7RL

British Trust for Conservation Volunteers (BTCV)
Firsby Road
Quinton
Birmingham B32 2QJ

Birmingham Voluntary Service Council
138 Digbeth
Birmingham B5 6DR

Bournbrook Valley Conservation Group
317 Harborne Lane
Harborne
Birmingham B17 0NT

British Waterways
Midlands Regional Office
Peel's Wharf, Fazeley, Tamworth
Staffs B78 3QZ

Butterfly Conservation
West Midlands Branch
3 The Deer Leap, Dalehouse Lane,
Kenilworth CV8 2HW

Centre of the Earth
42 Norman Street
Winson Green
Birmingham B15 2TT

Community Service Volunteers
Block D, St Peters Urban Village Trust
College Road
Birmingham B8 3TH

Countryside Commission
Midlands Regional Office, 1st Floor, Vincent House
Tindal Bridge, 92-93 Edward St
Birmingham B1 2RA

Curriculum Support Service
Education Department, Martineau Education Centre
Balden Road, Harborne
Birmingham B32 2EH

English Nature
West Midlands Regional Office, Attingham Park
Shrewsbury
Shropshire SY4 4TW

Environment Agency
Midland Region, Sapphire House,
550 Streetsbrook Road, Solihull
West Midlands B91 1QT

Forestry Authority
Rydal House, Cotton Road
Rugeley
Staffs WS15 3HF

Friends of Deers Leap Wood
185 Willow Avenue
Edgbaston
Birmingham B17 8HJ

Friends of the Earth
54 Allison Street
Digbeth
Birmingham B5 5TH

Friends of Edgbaston Reservoir
Edgbaston Reservoir Lodge
Reservoir Road
Birmingham B16 9EE

Friends of Manor Farm Park
59 Swathmore Road
Northfield
Birmingham B29 4NH

Friends of Sutton Park
12 Ridgewood Drive,
Sutton Coldfield
Birmingham B75 6TR



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