

Parks, People and Nature

A guide to enhancing natural habitats in London's parks and green spaces in a changing climate

Natural England works for people, places and nature to conserve and enhance biodiversity, landscapes and wildlife in rural, urban, coastal and marine areas. We conserve and enhance the natural environment for its intrinsic value, the wellbeing and enjoyment of people, and the economic prosperity it brings.

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Introduction

My vision for London is of a green city, and a fair city, where everyone has access to a high quality green space in which wildlife can be encountered close to where they live and work. London has some of the finest parks of any capital city in the world. Yet it also has some areas lacking in green space, and many more where the quality of the green spaces could be better. This booklet provides a valuable practical guide on how to improve access to nature in parks and green spaces, complimenting my London Plan Implementation Report on Improving Londoners' access to nature.

Appropriate design and management of our parks and green spaces will be one of the key challenges that will enable the City to adapt to climate change. Park managers need to be working now to plant the trees that will provide shade for a much warmer city in the 2080s. We also need to start thinking now how our parks can help in addressing broader environmental challenges such as flood risk management.

This guide is packed with ideas for a whole variety of locations, and takes into account the needs and aspirations of the diverse communities who make up our city. It also showcases examples of biodiversity enhancements in London's parks and green spaces from the last eight years, which have been achieved by working in partnership with members of the London Biodiversity Partnership, the London Parks and Green Spaces Forum, the London boroughs and other parks management bodies. This partnership working will continue to deliver further improvements into the future. It is time to make our parks and green spaces places for both people and wildlife, ensuring that a full range of benefits is there for everyone.



Ken Livingstone, Mayor of London

We all benefit from being closer to nature, not only from the physical health benefits that being outside can bring, but also from the inspiration and sense of wellbeing that regular contact with spaces enlivened by trees, colourful plants and birdsong can bring. This is why providing people with access to natural greenspace, as close as possible to where they live and work, is one of the key objectives for Natural England. We welcome this guide, which aims not only to maintain but to improve and increase natural greenspace, helping to ensure that all Londoners have the opportunity to appreciate, understand and actively experience the city's unique natural heritage.



Alison Barnes Director, London Region, Natural England





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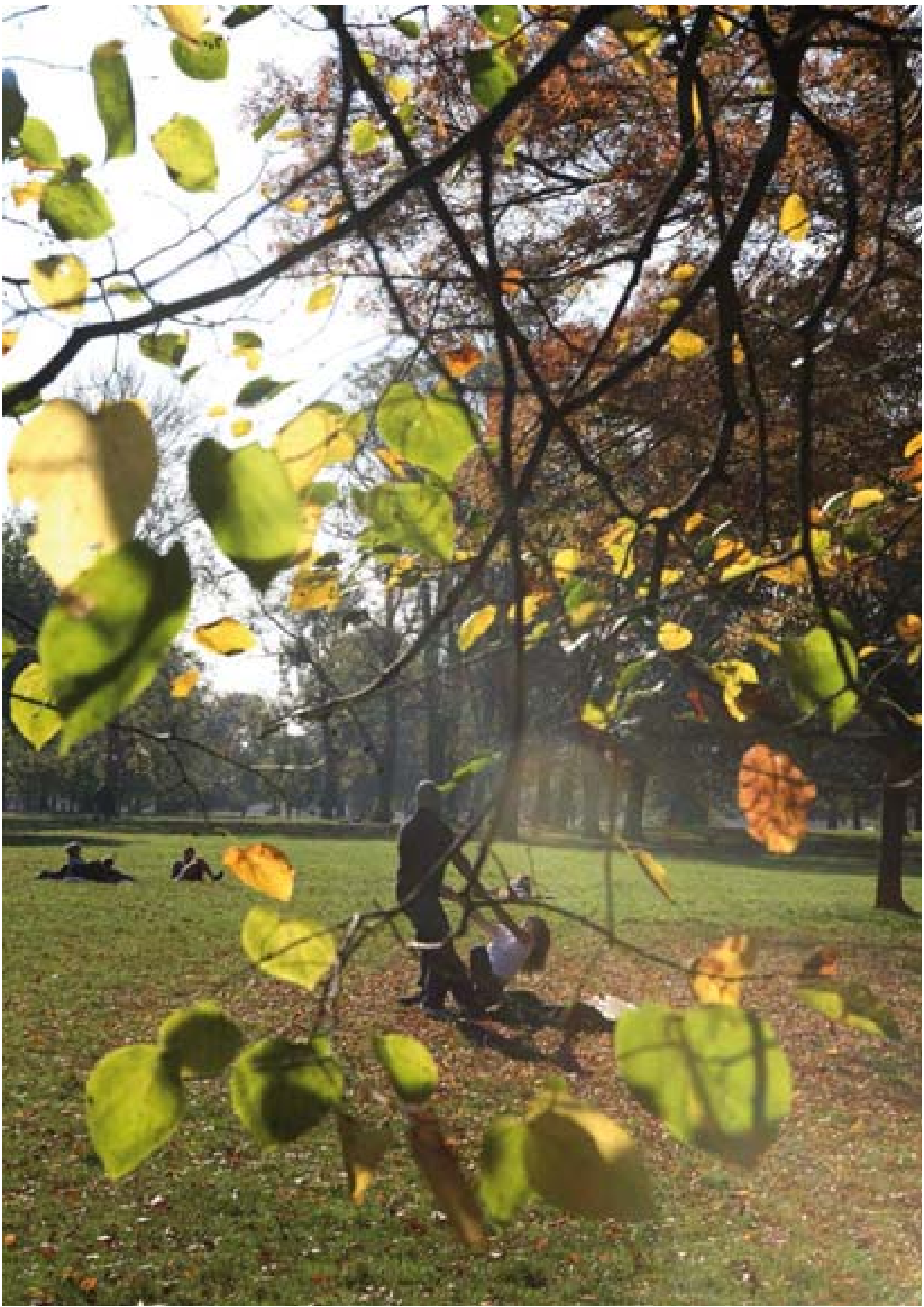
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Parks

Simon Barnes

What is it for? That is the question to ask before you make anything, before you begin work on anything, before you seek to improve anything.

It is a question that is not asked often enough, with the result that too many big decisions come down to compromise and half-baked good intentions.

So what is a park for? Is it place where the restless can exercise? Where children can play? Where an old person can have a nice sit on a warm day? Is it a pleasant short-cut? Is it for ball games? Is it for taking a stroll with the dog? Is it for picnics? Is it for feeding the ducks? Is it for carbon sequestration? Is it for wildlife?

All those are the right answer, and all those are the wrong answer. At base – at root, I should say – a park is for one thing and for one thing only. It is for the refreshment of the human spirit. Bear that thought in mind in every aspect of the planning and maintenance of any kind of urban green space, and you will be on the right track.

A place where not all lines are straight, a place where green prevails over grey, where soft is more easily found than hard: such a thing is essential to humankind. We have a need to be with non-human life. Above all, we have a need for that little touch of wildness: and in a city, it is a park's job to provide it.

A park's prime function is to annihilate all that's made to a green thought in a green shade. Everything else follows from that. You need a place in which you can lose yourself: where you can look ahead and not see the way out: where you can look around and see more

than human-made things. The sight of a stand of mature trees is balm to the human soul: and if there is a view of water as well, so much the better.

This idealised landscape – green sward, big trees, water – recalls the great parks of aristocrats. But why should they want such a thing? Because this is a landscape that touches us all. It recalls the wooded savannahs of Africa, the place where humans first walked upright. This is the landscape that still feels like home: and our modern city-slicker selves cry out for it.

We find stress in uniformity: we find a profound relaxation in the variety. We seek rough edges, wooliness, a feeling that the world is not all dragooned and disciplined and organised. We want to be in places that are not entirely subjugated to the human will. A park is by definition an organised place: but without a touch of the wild, it fails to do its job. And we need a soundtrack. We need the sound of birds above the eternal hum of traffic. Most visitors to a park will not notice birdsong, still less wish to identify the birds: but the subliminal murmur and melody is essential for the experience. Birdsong is an aspect of well-being: if you like, a basic human right.

Most explanations of why a park is a good thing take the form of a negative: a park provides relief, it is a place to recover from the various pressures of city life. But this is the wrong way of looking at it. The green spaces make a city work. They don't make things less bad: parks are subtle and powerful bringers of good. A park is a city's completion, for without good parks a city is less than itself. A park's job is not to relieve stress but to enrich human lives.

Parks for people and nature

London has some of the finest parks of any capital city in the world, and they perform a vital role in the lives of its 7.2 million inhabitants and those who work in the city or visit on holiday. At any time, people come to the park with a whole variety of purposes; perhaps it is to have fun with the kids or to take a quiet stroll with the dog; to engage in a boisterous sport or to chill out under the trees; to feel a sense of the countryside in town or to admire an elegant flower garden. Our best parks can support a whole range of physical and emotional experiences, which are quite different from what we encounter elsewhere in the urban environment.

Contact with the natural world is part of this mix. A recent survey by CABESpace placed contact with nature as one of the top five values people associate with parks. It followed closely behind the two top values: the opportunity to socialise and be part of the community and the chance to get away from it all and unwind. Balancing the needs for vibrancy and social activity with tranquillity and a space to think is one of the key challenges for management.

Enjoying nature tends to fall amongst the quieter activities. Interpreted broadly, it encompasses a wide range of experience: the wind whistling through the trees on a winter's day; squirrels burying acorns at the foot of an ancient oak tree; the clear song of a blackbird on a spring morning; the colour and buzz of bees and butterflies on a lazy summer afternoon. It embraces both the commonplace and the rarity. A stroll through some of London's parks provides a chance to experience a rich variety of the sights and sounds of the natural world. But others fall far short of their potential; this book aims to help you enhance their natural value.

Identifying opportunities

Enhancement for nature has to fit alongside all the other things people want from parks and green spaces. In this guide, we view it as a tool for improving the landscape and ecological interest of the park, rather than simply a project for a dedicated wildlife corner. The guide aims to serve as a source of ideas, offering examples of possible projects for many of the typical landscape features that can be found in London's parks.

In the most formal areas, such as around a main entrance, enhancement for biodiversity needs to be tailored carefully to fit around the existing character; towards the periphery, a more relaxed, naturalistic approach may be possible. Some parks contain fragments of priority habitats or populations of priority species in the London Biodiversity Action Plan; where this is the case, protecting and encouraging that interest should be a top priority, and other activities in the nearby area should be managed to protect the interest. Most of the more typical wildlife found in parks can co-exist with informal recreation, providing sufficient habitat is maintained in a suitable condition. Balancing competing uses nonetheless remains one of the key challenges for managers.

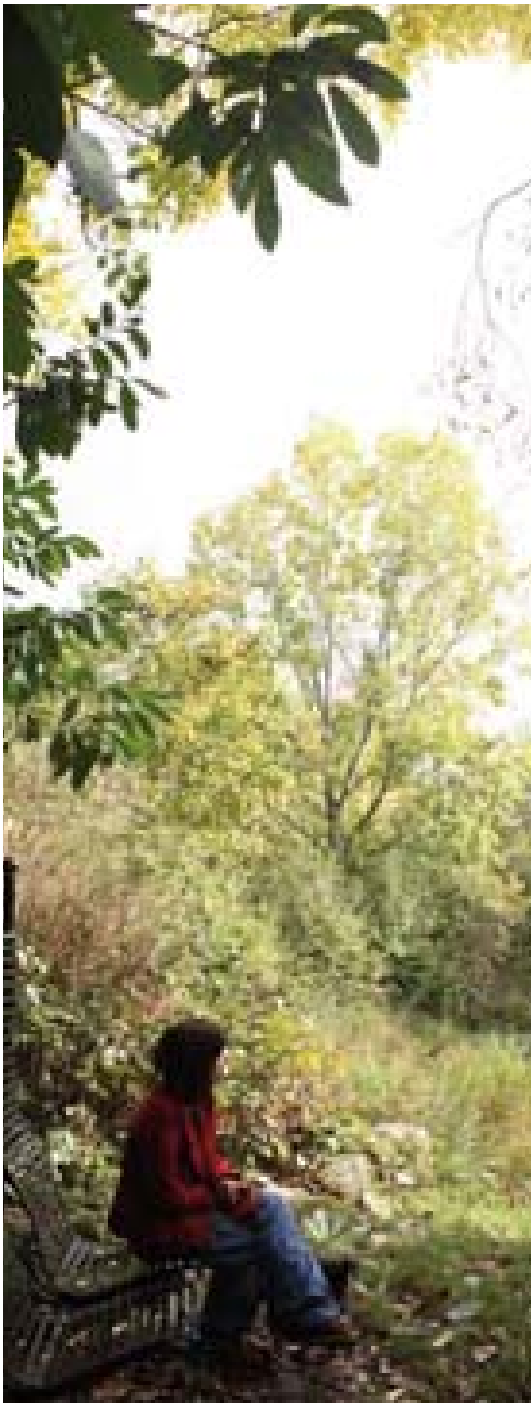
Healthy living

Improving the landscape of the park will encourage more people to use it. A recent report by Dr William Byrd has demonstrated how moderate exercise like regular walking or conservation work can lead to health benefits such as reduced risk of heart disease or strokes. People are more likely to take sufficient exercise if they have a park with a varied landscape and good wildlife value near their home. A number of London boroughs are now developing short walks guides, to encourage people to explore their local area, or running healthy walking groups.

Staying fit naturally, Ruskin Park, Lambeth

Lambeth Council promotes the use of its parks and open spaces as safe places for walking, including 'walking to get fit' or 'exercise on prescription' to recover from cardiovascular disease or other illness. The groups say they enjoy the freedom to walk somewhere near their homes, out in the fresh air, where they feel safe and can experience the sounds and sights of nature. For some of the groups, there may be genuine or perceived cultural and social barriers that would discourage them from joining a gym or leisure centre to keep fit. Many of the people in the groups have been regular walkers for some time, and act as the eyes and ears to report issues or problems to the police and council, as well as to feed back developments to their own community.





A space for reflection

A recent conference of the London Parks and Green Spaces Forum invited Faith Groups to discuss their needs from London's parks. A recurring theme was the desire for secluded places to pause for quiet reflection. Quiet areas – perhaps screened by trees and shrubbery, with wild flowers or herbaceous planting and a few benches to sit on – are also likely to be good for wildlife. A pool or fountain and feeders to attract birds could provide further interest.

Times of change

Contact with nature helps us to keep in touch with the changing seasons: crocuses opening in the spring sunshine; the high-pitched calls of swifts overhead in summer; toadstools springing up on a damp autumn day. But times are changing. The first oak leaves in southern England now open almost three weeks earlier than in the 1950s. Daffodils at Kew Gardens open almost two weeks earlier than in the 1970s.

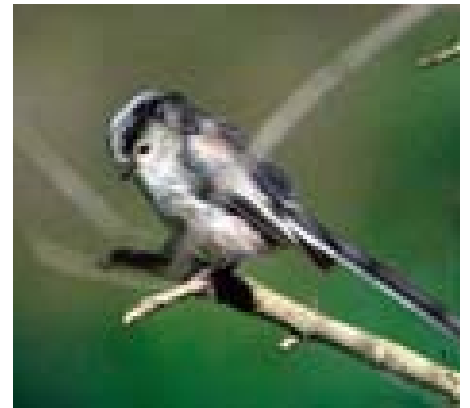
Winners and losers

Milder winters have brought some benefits for London's wildlife – we have seen an increase in birds like the long-tailed tit and green woodpecker since the 1970s. The speckled wood and gatekeeper butterflies have spread into new areas and we are likely to see new species arriving from the continent.

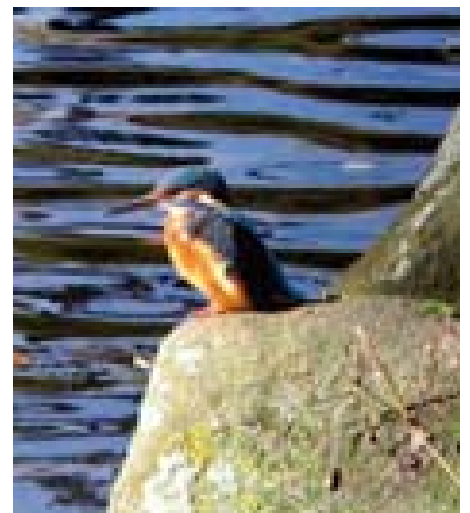
But hot dry summers could make it harder for blackbirds and thrushes to reach the worms in parched, sun-baked soil. Some insect pests, which used to succumb to winter frosts, are now more likely to survive year to year, adding new problems for tree managers. Beech trees may struggle, being vulnerable both to summer drought and waterlogged winter soil.

Managing a changing climate

Biodiversity enhancements need to be designed to take account of changing conditions. Improving habitat diversity could help some species adapt to climate change. We need to marry this up with planning for human needs in a warmer climate.



The long-tailed tit has become more common in London in recent years. This is thought to be linked to climate change. In hard winters it is difficult for such tiny birds to retain their body temperature. Milder winters improve winter survival.



Milder winters, together with improvements in water quality in the Thames and some of its tributaries, have helped water birds like the grey heron and kingfisher to make a comeback in London.

Tracing your park's roots – a key to good planning

Exploring the origins of your park can help to understand its character. Identifying special features, whether they be remnants of ancient habitats or significant elements in an historic design, is an important first step in planning for future enhancements. This will help to recognise the site's natural potential, protect important landscape or archaeological features, and ensure new projects sit harmoniously in the landscape.

Origins of London Parks

To birds overhead, London's parks and green spaces must seem like green islands in a sea of buildings: but only a few hundred years ago most of our suburbs were no more than villages, built-up islands in a sea of green. Many of our parks and gardens are remnants of that vanished landscape, albeit much changed over the years.

Some of our oldest green spaces are London's commons. Many were saved for the community through the endeavours of such organisations as the Commons and Open Spaces Society in the 19th century. Medieval in origin, they often retain a wilder feel than the more recently-created designed landscapes. Some of them preserve remnants of ancient habitats, such as the heathland and acid grassland on Wimbledon Common and Hampstead Heath. Traditionally they were part of the local economy, used for grazing and gathering firewood or fodder; today they serve a mix of active and passive recreation. But many have potential for restoring some of their former character as common land.

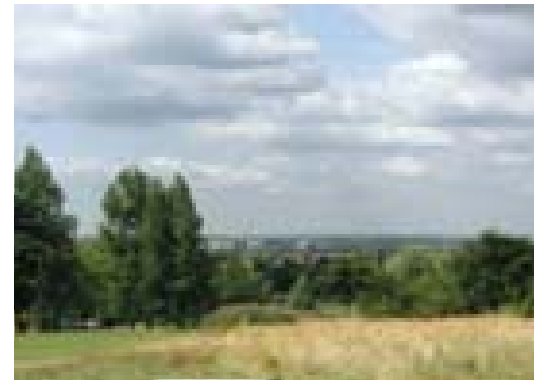
London's eight Royal Parks began life as hunting parks for the monarchy, symbolised in the retention of deer at Richmond Park. The character of the Central Royal Parks today reflects the work of a succession of inspired designers – notably John Nash in the case of St James's Park and for the broader layout of Regent's Park. Hyde Park was the first to be opened to the public in 1637; more than 100 years would pass before Kensington Gardens followed suit and then at first only for those who were well-dressed! The true age of urban parks began in the mid 19th century. London was expanding rapidly at this time. It was recognised that parks were important, both for moral welfare and health, and the East End needed them just as much as the more affluent West End. Victoria Park and Battersea Park were developed in this period. Construction involved large-scale earthmoving to create lakes and mounds, and tree planting on a grand scale, mainly of exotic species.

As London grew, further parks were developed, either from farmland or the grounds of grand houses, such as Holland Park, Beckenham Place Park and Grovelands Park (Enfield). Whilst older parks tended to follow the English landscape style, by the late 19th century a more formal geometric layout, which we now think of as typically Victorian, was becoming the vogue.

The interwar years saw the creation of many parks in London's newer suburbs. Physical fitness was seen as important, partly as a result of the

Streatham Common, Lambeth

London's commons are some of the largest tracts of open land within the built up area, and are usually rich in history. Streatham Common can be traced back to the 11th century. Towards the top of the hillside, it has a fine expanse of acid grassland, a Priority Habitat in the UK Biodiversity Action Plan. Commons lend themselves to an informal management style, creating a sense of countryside in town.



Well Hall Pleasaunce, Greenwich

This attractive park has a many-layered history. Originally the home of Margaret Roper, the daughter of Sir Thomas More, it has retained a Tudor moat and a barn from that period. It also has a fine Victorian woodland garden and a 1930s style ornamental flower garden, which has recently been restored through HLF funding. The moat has plenty of fish and is frequently visited by grey heron and kingfisher. The woodland garden supports a good range of birds; coal tit and goldcrest can often be spotted up in the tree canopy.



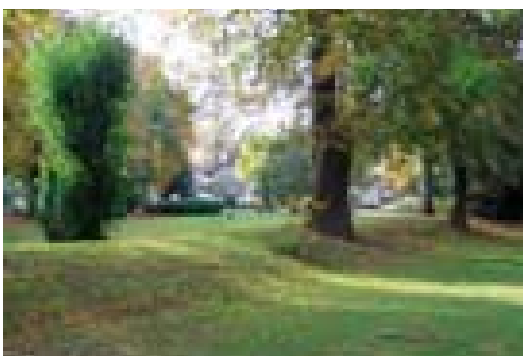
Victoria Park, Tower Hamlets

Historic parks, developed in the 18th and 19th centuries, tend to have a good range of mature trees and shrubbery, which can support a good variety of woodland birds. Maintaining sufficient understorey vegetation is a key challenge. Traditional lakes can often be improved for wildlife, for example through adding reed beds. There is much scope for wildlife-friendly sustainable horticulture in flower borders.



Barham Park, Wembley

Parks developed in the inter-war years tend to have an open landscape with an emphasis on sports. Where old hedge lines or farmland trees survive, these can be a good starting point for ecological enhancement. The open landscape also lends itself to meadow creation; some parks may retain wild flowers from earlier times, which will bloom if the mowing is relaxed for a while.



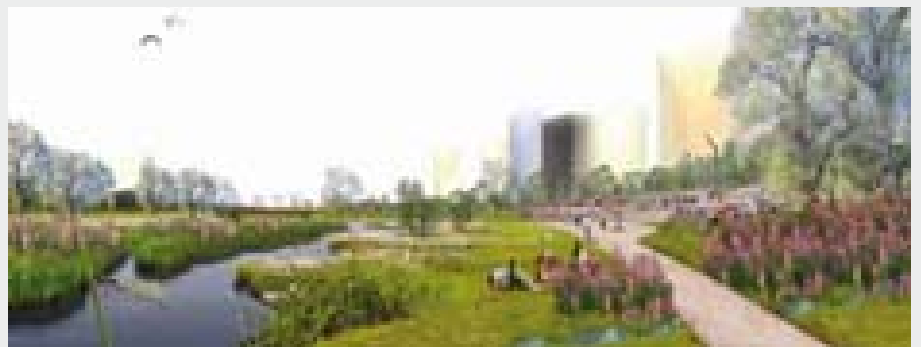
poor health of many of the recruits in the First World War. Sport came to play a dominant role in park design, balanced by horticultural display. New parks were usually developed directly from farmland, sometimes retaining old farm hedgerows and majestic oak trees.

After the Second World War, the high cost of land made the establishment of large parks almost impossible. Nonetheless, stemming from Abercrombie's Greater London Plan of 1944, two large parks were created in Burgess Park and Mile End Park. Unusually in the history of London's parks, both were developed mainly on previously built land. A few small public gardens were also created where bombing had opened up gaps in the urban fabric; Cleary Gardens near St Paul's Cathedral and Phoenix Garden in Bloomsbury are both havens of calm in busy, built up areas.

If landscape design led the development of parks in the 18th and 19th centuries, by the 1970s and 1980s ecology had become an equal partner in some cases. Russia Dock Woodland and Stave Hill Ecology Park, developed on part of the site of the former Surrey Docks, and Camley Street Natural Park near Kings Cross created a new type of landscape, where quiet recreation could be combined with educational and community activities.

21st century London

Each generation has its own aspirations and needs from green landscapes and in this regard the 21st century will be no different. In the legacy of the London 2012 Olympic Games and Paralympic Games, London will have its first major park in half a century; this is part of the major regeneration that is underway more widely in the Thames Gateway. Its design represents a huge challenge, balancing the needs of the East London community, with the unique ecological interest and industrial heritage of the Lower Lea Valley. New designers will emerge, and like the great landscape designers of the past, bring new ideas. They will need to look well ahead into the future, and plan for Londoners in a very different climate.



In legacy, the restoration of the Olympic Park will deliver a 102ha park in an area which is currently largely deprived of public open space. New and enhanced water and land habitats within the Lower Lea Valley will be developed, connecting to the East London Green Grid. The plans are being developed with the community and stakeholders in 2008 through consultation on the Legacy Masterplan Framework.

From process to practice - working with Local Authorities

The best ideas of ecologists and landscape designers may come to nought unless a route can be found to translate them into practical action. A key to success lies in understanding the Local Authority system and how to get biodiversity on to the political map. The new Natural Environment and Rural Communities (NERC) Act, 2006, is an important new political driver for delivering the UK Biodiversity Action Plan. It requires Local Authorities to 'have regard, so far as is consistent with their functions, to the conservation of Biodiversity', and advocates a cross-cutting approach in which biodiversity is integrated into the wider Sustainable Development agenda.

Sustainable Community Strategies

The Communities and Local Government White Paper, 'Strong and Prosperous Communities', 2007, encourages local authorities to act as leaders and place-shapers, working in partnership with the local community to develop Sustainable Community Strategies. A useful step forward is therefore to get biodiversity and green space targets incorporated in these strategies; this should help to get suitable projects into the Council Service plans and hence the budget. These strategies are overseen by bodies called the Local Strategic Partnerships, which bring together representatives from the council with public and private sector organisations such as police, fire and health services, and schools, businesses and community groups. Such partnerships can be highly influential locally; for example, if your area receives Neighbourhood Renewal Funding, they will determine how the money is allocated. So getting a strong champion for green space and biodiversity into the partnership can be a great help. Emphasising how biodiversity can contribute to cross-cutting targets, such as climate change and quality of life, can help to foster support.

Targets and indicators

Linked to these Strategies, Local Authorities are required to establish Local Area Agreements with central government. This involves selecting a number of indicators and working towards agreed targets; success in achieving targets is linked to financial rewards. One option is a new Biodiversity Indicator, based on the proportion of Local Sites where positive conservation management is undertaken. This should become a useful lever for parks that are recognised as Sites of Importance for Nature Conservation.

Planning

The planning process provides another mechanism for promoting biodiversity enhancement of green spaces. At borough level, the statutory Local Development Documents (LDDs) set out planning policies and objectives for development and land use in the local area. In accordance with Planning Policy Guidance for nature conservation PPS9, LDDs are expected to: *"identify areas for the restoration or creation of new priority habitats which contribute to regional targets, and support this... through appropriate policies"*.



Skylarks in Richmond Park

In accordance with their duty as a public body to 'have regard to... the purpose of conserving biodiversity', The Royal Parks are striving to look after a small surviving population of skylark at Richmond Park, through careful management of the acid grassland. The skylark is a UK priority species for biodiversity and very scarce in London. Volunteers have mapped out the most important nesting locations and dog walkers are asked to keep dogs on leads in this area. This has helped to stabilise the population.

Barnard Park, Islington

Islington has one of the lowest amounts of green space per person of any London borough, with just 1.07ha per 1000 people, but the Council is committed to making the most of that resource. In its **Local Area Agreement**, target SSC24 sets out to increase the area of land that is managed to improve its nature conservation value by 8.6ha over the next five years. This should serve as a useful lever for biodiversity projects.



Mountsfield Park, Lewisham

Lewisham Council's **Open Space Strategy 2005-2010** sought to reduce Areas of Deficiency in access to nature through a commitment to improving Mountsfield Park and other public green spaces, aiming to increase the number of sites which are recognized as Sites of Importance for Nature Conservation. A suite of enhancements — including tree planting, a pond, stag beetle loggeries and areas of meadow and urban wild flowers — led to Mountsfield Park being upgraded to a Site of Borough Importance for Nature Conservation.



Waterlow Park, Camden

The London Borough of Camden has a commitment in its Open Spaces Strategy to make an application for one new **Green Flag Award** each year. Green Flags have become a symbol of local pride; pursuing an Award brings opportunities for profile raising with politicians, senior officers and the press.



The London Plan¹ sets the regional framework for the capital. To address existing inequalities, it identifies localities which are short of good quality natural green space as Areas of Deficiency in access to nature. (These are defined as localities where people are more than a kilometre walking distance from a publicly accessible Site of Borough Importance, or higher, for Nature Conservation). Policy 3D.14 requires that: *“Development Plan Documents should identify these deficiency areas and the opportunities for addressing them”*. LDDs at the borough level have to be in general conformity with the London Plan, so should provide a strong policy context for requiring biodiversity improvements to green spaces in the most needy areas, including as part of new development proposals. The Mayor has published a list of priority green spaces for improvements.

Open Space Strategies

The London Plan also requires boroughs to undertake open space strategies, both to gain a better understanding of their overall resource and provide a sense of direction for the future. The Mayor has produced best practice guidance to assist in this. These strategies are expected to consider biodiversity and prioritise actions to tackle deficiencies. This approach should help to provide a robust framework for integrating biodiversity into wider open space objectives.

The sharp end – contract management

In the final analysis, meeting a site's potential depends on the process of contract delivery. Developing sound grounds maintenance specifications is therefore a key task. Although our vision may be of a landscape that appears to have evolved naturally, in practice we need to spell out fairly precisely the actions required to achieve and maintain this. Managing for biodiversity means working along a continuous spectrum from formal parks management through to methods more typically associated with nature reserves or the countryside. We need to be aware that not every operative will share our understanding or appreciation of wildlife, so the closer the ecologist can work with the grounds maintenance team the better. Wandsworth Council, for example, has found that having a dedicated ecologist working directly with the Grounds Maintenance Team in its conservation areas has improved the quality of delivery. Ideally some of the contract staff should be based locally, so they can get to know a site and its wildlife and build links with the local community.

Some flexibility needs to be built into the contract, both to take advantage of emerging opportunities, such as potential new volunteers, and also to respond to unexpected weather, which can play havoc with the best-laid plans. For a useful discussion of integrating biodiversity into grounds maintenance contracts, see 'Making contracts work for wildlife.' CABESpace 2006.

¹ *The London Plan (Consolidated with Alterations since 2004) published February 2008, hereafter referred to as the 'London Plan'.*

A new role for London's parks – a key element in the city's green infrastructure?

London's parks and green spaces have been developed over the years mainly for recreation and amenity. But the city faces some serious challenges; climate change modelling projects drier, hotter summers in the future and shorter, warmer, wetter winters, with more frequent and intense storm events. Parks will have a new role to play in helping to adapt to these changes. The impact of climate change will be intensified by a projected increase in population from 7.2 million to eight million by 2020, especially in East London, coupled with densification of the core urban areas. This will increase the pressure on green spaces in some areas.

Our existing network of green spaces was rarely designed to deliver environmental services such as flood management, pollution control or resilience to climate change, simply because most of our parks were created long before these issues became of great concern. Up to the 1980s, biodiversity conservation also happened mainly by chance, as plants and animals found a niche in habitats that survived or were created primarily for human needs.

From the perspective of the physical functioning of the city, our existing network of green spaces can therefore be seen as less than the sum of its parts. For parks to fulfil their potential in this regard, they need to be considered as part of the city's green infrastructure, an integral part of a modern liveable and sustainable city, providing a range of valuable, necessary and relevant services. This in no way belittles their primary function – to improve the lives of the 7.2 million human inhabitants.

Just as cities need to upgrade and expand their grey infrastructure (roads, sewers, utilities etc.) so too, they need to enhance and maintain their green infrastructure, integrating it into the overall infrastructure of a modern, sustainable city. This is especially important where substantial areas are going through major regeneration. Designing and managing green spaces to deliver these wider environmental benefits should go hand in hand with improving their biodiversity value and broader enjoyment of the local community.

How parks can help

Here are some of the key ways parks and green spaces can contribute to the city's infrastructure:

- **Flood management** – increased urbanisation and densification results in more non-porous surfaces such as tarmac and concrete, putting increased pressure on the drainage network during heavy rain. This can lead to flash flooding. Green spaces act as sponges, absorbing water so it soaks slowly into the ground rather than running directly to the drains. Parks can be designed to provide storage for surface water or as flood plains for rivers.
- **Urban heat island** – the mass of man-made surfaces that absorb and radiate heat, such as concrete and tarmac, and other heat-emitting sources, such as heating, air-conditioning units and vehicles, causes

Sutcliffe Park, Greenwich

This pond is more than a patch of wildlife habitat or pretty landscape feature. It was created by the Environment Agency as part of a river restoration project on the Quaggy River. The river used to run under the football pitches in this park, buried in a concrete pipe. It has now been brought back to the surface as a naturalized stream. The profiles of the 'new' stream and pond have been sculpted to provide a large amount of flood storage. This reduces the risk of flooding further downstream in Lewisham town centre.



Parkland Walk, Haringey and Islington

Parkland Walk Local Nature Reserve occupies a former railway line linking Finsbury Park to Alexandra Palace in North London. When the railway was dismantled in the 1970s, a vigorous campaign led to the site being acquired for the local community.

The Walk has a unique quality, combining a sense of countryside in town, with a rich ecology and historic railway architecture. It is valued both as a pleasant place for a quiet stroll and as a cycle and jogging route.



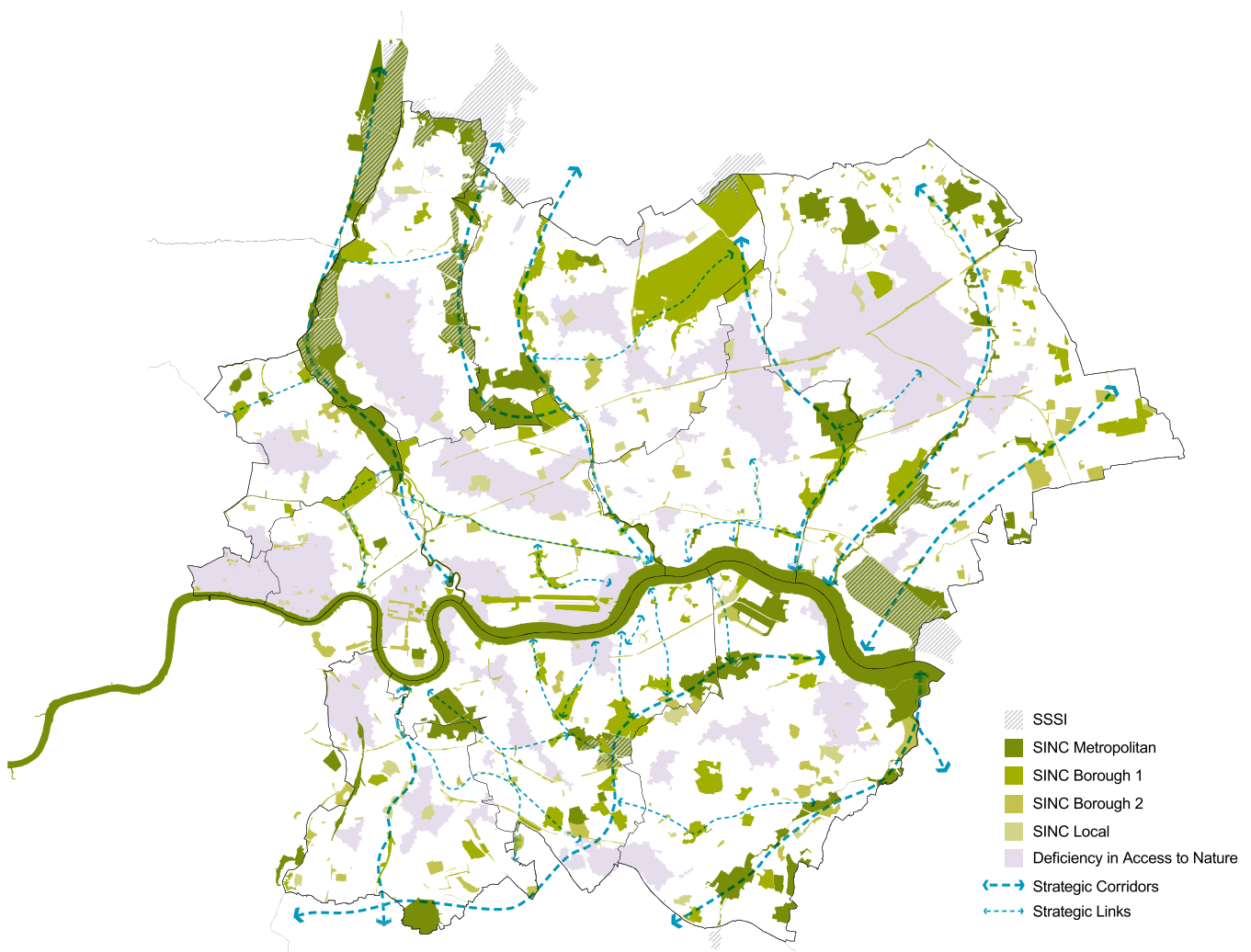
East London Green Grid

The East London Green Grid is an imaginative proposal for a network of multifunctional green spaces in the Thames Gateway, which is being promoted by a partnership between the GLA, LDA, Environment Agency, local boroughs and Thames Gateway London Partnership.

This area is currently undergoing major regeneration, and anticipating significant population growth. From the overall plan, local partnerships progress projects in individual sites in their locality. Together these enhancements will lead to restoration of much previously inaccessible, derelict land for public recreation, together with biodiversity enhancements, economic benefits and improved connectivity between communities along new footpaths and cycleways. Contact: www.london.gov.uk/mayor/strategies/sds/spg-east-lon-green-grid.jsp

cities to become several degrees warmer than the countryside nearby. This can lead to uncomfortable conditions in high summer. Parks and street trees help provide shade, and moisture released through transpiration.

- **Pollution control** - trees and other vegetation can help filter contaminants from air and water.
- **Noise amelioration** - earth bunds, large trees, shrubbery and hedgerows can reduce both the visual and sound intrusion of traffic. This improves the soundscape; a rich mix of natural sounds helps to restore links with the living world.
- **Connectivity** - New linkages, created as part of urban regeneration, can improve social permeability, with safer transport links for pedestrians and cyclists through green spaces. Walking and cycling helps people stay fit. Green links may also serve as ecological corridors, helping wildlife to disperse from one habitat to another.
- **Resilience** - parks and green spaces that are ecologically robust are more likely to be able to cope with the demands put upon them by increased use in a changing climate.





Grassland and meadow

Mown grass is one of the most basic ingredients of any park, the hard-used backdrop for all manner of activities. But does it all have to be mown like a carpet? Varying the grass-cutting regime can be a valuable first step to enhancing biodiversity.

Exploring the potential

First consider the character of the park. Is the site large enough to set aside a substantial area as meadow? Or could management be relaxed to allow a fringe of longer grass towards the edges? Perhaps you could just ease off the frequency of mowing for a month or two to allow daisies and buttercups to flower? Leaving the grass a little longer will help it to get through dry summers.

Then take a look at the turf. Does it contain a good variety of wild flowers or is it dominated by rye-grass? Some of London's parks, particularly in the outer suburbs, have relict communities of grasses, wild flowers and butterflies, a legacy of their rural past. This is particularly true on the chalk soils up towards the North Downs in Bromley and Croydon and on the sandy soils of some of London's old commons like Blackheath and Hampstead Heath. Often the wild flowers are inconspicuous, cut back before they have a chance to bloom. But in the inner city, amenity grass may be just what its name implies – a hard-wearing turf of perennial rye-grass: practical, easy to maintain, but with few wild flowers.

Which way to turn?

If the site has good natural potential, it is better to work by sensitive changes in management which encourage desirable grasses and wild flowers. This will not only be cheaper and easier to manage, but will also look more natural, in keeping with the landscape. Acid and chalk grasslands are priority habitats in the UK Biodiversity Action Plan, with habitat restoration targets identified in The London Plan, so if these occur in your park it is important to try a natural approach. But if the sward has little but rye-grass and dandelions, relaxing the mowing may not result in an attractive sward; habitat creation with a wild flower seed mix may give a better outcome. In practice, many parks lie between these two extremes and a subtle blend of a natural approach and creative conservation techniques may be the best way through.

Meadow creation – some general principles

Survey

A habitat survey is the best way to assess the site's natural potential. The GLA habitat survey programme produces basic ecological information for most of London's open spaces; Greenspace Information for Greater London, the open space and biodiversity records centre, maintains a database of this data (www.GIGL.org.uk). A full botanical survey could provide greater detail. It is best to leave the grass to grow for a month or two before commencing field work so that as many as possible of the plants are in flower.

Landscape, aspect and soil

Next consider the landscape and aspect of the site. Ideally, long grass areas should appear to have evolved naturally as part of the landscape.

A gradation from shrubbery or woodland through long grass to short turf can look attractive. Sunlit locations are preferable, especially for butterflies. Make use of natural changes in topography and soil moisture – many of our most attractive meadow flowers, for example cuckoo flower and meadow buttercup, need moist conditions.

Soil conditions are a major factor in determining which flowers will thrive. Many of London's parks have nutrient-rich soils, a legacy of visits from generations of London's dogs as well as fertiliser use. Sometimes the soil is also severely compacted. Relaxing the mowing in these conditions may result in dominance by coarse grasses or clumps of tall 'weeds' such as docks and thistles, which may not look well in the park landscape. Sloping sites, where nutrients tend to run off the soil, may give an attractive result more easily.

Management

It is important that long grass areas are kept as clean and welcoming as mown turf. Litter picking may be more time consuming and should be done before mowing if clippings are to be composted. Mowing paths through the meadow, perhaps maintaining a band at up to 10cm high alongside paths, will make the site more welcoming and also encourage low growing wild flowers. A summer meadow can be managed with just a single spring and late summer cut, adjusting the timing to take account of weather conditions and which plant communities you want to encourage. If fire hazard is likely to be a problem, especially in hot, dry summers, consider cutting just before the school summer break.



Working from existing turf

Hyde Park Meadow, Royal Parks

This was one of the first parks in Central London to develop a wild flower meadow. Initially it was just a case of letting the grass grow up to see what happened. Then changes in the cutting regime and turf stripping were tried in an attempt to increase the number of flowers. Later, a wide range of wild flower plugs was introduced.

The grass sward is variable on this site; the parts that lie over London Clay tend to be dominated by tall coarse grasses, whilst those on better-drained soils have finer grasses such as bents and fescues. The introduced wild flowers have fared better amongst the finer grasses. Generally, the taller, summer-flowering species like knapweed and oxeye daisy have established better than spring-flowering species like cowslip and primrose. Several of the less robust species have simply disappeared, swamped by taller vegetation.

As a patch of 'countryside' in town, the meadow is a great success, but for years it was strangely lacking in butterflies. Many grassland butterflies over-winter as caterpillars amongst grass stems. A wholesale autumn cut can remove most of next year's young. Now some areas are left uncut as over-wintering refuges. Meadow brown and small skipper butterflies have begun breeding a stone's throw from Marble Arch. Contact: The Community Ecologist, The Royal Parks. www.theroyalparks.gov.uk

Peckham Rye Park, Southwark

Here Southwark aimed to create a mosaic of shorter and long grass areas towards the south of the park, through relaxing the mowing in some areas. The effect has been to soften the landscape, bringing a more rural quality to an urban park. However, for the first few years the meadows remained rather lacking in colour, with few flowers. So in selected plots the turf was stripped and wild flower plugs were planted at four to five plants per square metre. The plants chosen were robust species, of UK provenance, known to occur in the

locality. Most are now establishing well and attracting bees and butterflies.

The meadows are managed by a single late summer cut to 15-20cm using a flail mower, removing the arisings to reduce build-up of nutrients. Cuttings are left in situ for a day or two before raking up to allow caterpillars to escape, and a few plots are left uncut for over-wintering invertebrates and as a seed source for birds. Contact: Borough Ecologist. www.southwark.gov.uk

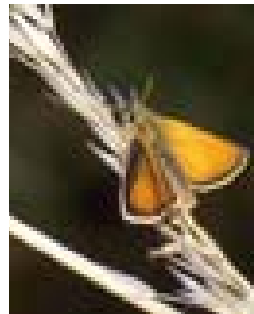
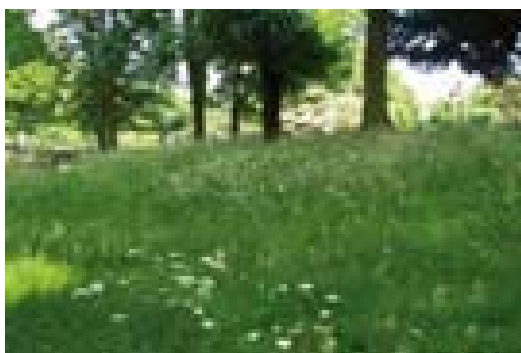
St Peter and St Paul Churchyard, Mitcham

The turf of churchyards and burial grounds often contains a wealth of wild flowers. It is not always necessary to go for a full 'hay meadow' approach; simply letting the grass grow for a couple of months, up to around 20cm, may be all that is needed to allow plants to flower. Close mowing can be continued in parts that still require a formal approach.



Countisbury House, Southwark

Relaxing the mowing in the grounds of this housing estate revealed a substantial population of the rare corky-fruited water-dropwort, a plant of damp meadows and ditches. Management is now tailored to encourage this attractive plant.



Photos: top – Hyde Park Meadow; middle from left – Large Skipper, Essex Skipper, Meadow Brown; bottom – Peckham Rye Park.

Starting from scratch – wildflower meadows from seed

Working with cornfield annuals

One of the simplest projects, which almost always gives good results, is to develop plots of wild flowers from a cornfield annual mix. These brightly coloured flowers, once commonplace amongst the corn, have become scarce in the countryside since the introduction of herbicides. Fortunately they seem to thrive in urban areas, even on the relatively nutrient-rich soils of London's parks. They can be sown with a mix of fine grasses, although flowers only will give a more vivid display. Although you may wish to try a small plot first, larger plots will give a more dramatic spectacle. Cornfield annuals can be used to good effect in place of bedding plants, in prominent positions, or even on roundabouts.

Site preparation is generally a job for the contractor or professional staff, but seed sowing can be a good project for a community group. This will foster a sense of ownership and pride. Seed sowing can be done in autumn or spring. Early sowing is recommended if you opt for spring so that if we have a dry summer, the plants are well established before the drought sets in. In theory the plants should set enough seed after flowering to maintain the display from year to year; in practice re-seeding annually, or at least every second year, gives better results.

Perennial meadow – a lasting solution

Sowing a perennial meadow is a more ambitious project, and more costly to establish than annual plots, though it will involve less input from year to year, hence lower maintenance costs, in the long run. It will probably look more natural, though less vibrant in colour, and can be regarded as more sustainable, needing fewer applications of herbicide. It is likely to prove more attractive to butterflies.

It is usually best to strip the existing turf and, for nutrient-rich sites, preferably also the topsoil. This should reduce the prevalence of coarse weeds, though some herbicide treatment may still be advisable. Choose a simple seed mix of fine grasses and wild flowers, suited to the local conditions, taking account of soil, drainage, light and shade. Some species, for example knapweed, oxeye daisy and wild carrot, seem to germinate far more readily than others. This may reflect the dry conditions in many London parks. Some moisture-loving species, such as meadow buttercup, are said to be easier to establish from an autumn than spring sowing. Another option is to use plug plants for the more difficult species. Young plants should be cut regularly in their first year to encourage strong vegetative growth. During this period the plants will not flower, and trampling must be discouraged. Interpretive signs can help to maintain public interest.

Most suppliers provide guidance notes for using their seed mixes. Some also run a consultancy service. This could be a wise investment, especially for larger projects, to gain a specialist's view on what is the best approach, what species are likely to thrive and how best to prepare the soil. A useful guide has been published by Landlife, the wild flower charity – see appendix.

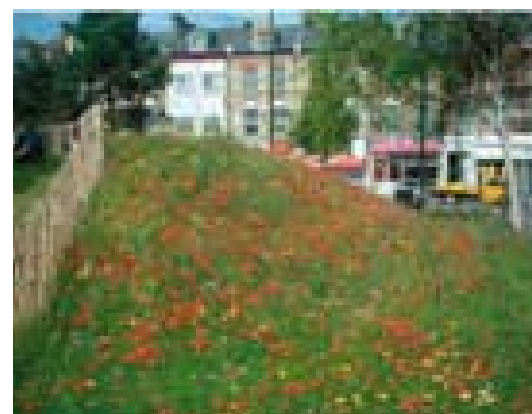
Annual meadows

Westbourne Green, City of Westminster.

This park was once a featureless landscape of mown grass and trees between the tower blocks of north Paddington and the A40 Westway flyover. As part of a major regeneration project, the City of Westminster developed large plots of cornfield annuals, whilst also improving footpaths, lighting and park furniture. Initially there was some scepticism amongst the local community, but once the plants began to flower, the meadows proved extremely popular. The plots are re-seeded every year, so there is always an element of suspense, wondering what will come up next time. No two years are exactly the same. Contact: Biodiversity Manager, www.westminster.gov.uk

Whittington Park, Islington

In just 4ha, Whittington Park has to meet a lot of agendas. Within its 4ha it somehow accommodates a couple of playgrounds, football pitch, skateboarders, dog walkers and even a small area of woodland. So when a wild flower meadow appeared on the wish list, it was hard to see where to put it. Eventually two plots were found on either side of the park's entrance on Holloway Road. The approach taken was to create a 'Pictorial meadow', based on a seed mix of native annuals with some late-flowering North American species to prolong the flowering season. In this location, visual impact was a prime concern. Naturally occurring urban 'weeds', especially taller species, need to be kept in check. Before seed sowing each year, emergent weeds are treated



with a non-persistent herbicide, hand pulling where necessary later in the year.

The vibrant display provides a real uplift for passers-by along the Holloway Road. Bees and butterflies are drawn towards the wide range of nectar plants, which later in the year provide a seed source for house sparrows and other birds. Contact: Ranger Services Manager, L B Islington. www.islington.gov.uk. Seed supplier Pictorial Meadows www.pictorialmeadows.co.uk

Perennial meadows

Allen Gardens, Tower Hamlets

Paul Pulford shows off displays of cornfield annuals, which have been grown from seed by volunteers around the fringes of Allen Gardens and Spitalfields City Farm. The area is currently undergoing substantial disturbance linked to the development of the East London Line; the wild flowers enhance the rural qualities of an urban city farm and provide a real uplift during a difficult time.

Boston Manor Park, Hounslow

This attractive historic park lies on a series of terraces, which step down towards the River Brent. The Friends Group wanted to enhance its wildlife interest, and identified an opportunity on a disused cricket pitch which was near the river and prone to flooding. The plot is about one hectare.

The soil is predominantly clay. Heavy machinery (a 360 excavator) was used to strip back the topsoil to a depth of about one metre. This was then turned over so that the topsoil and subsoil were reversed. This approach reduced competition from the weed seed bank in the soil, and also provided a lower nutrient substrate for seed sowing. No soil was removed from the site, helping to keep down costs. Wild flowers were established using a mix of plug plants and a perennial meadow seed mix, selected for damp conditions. The Friends Group was integral to the success of the project, helping out with both planning and practical work, and organising community planting days. Contact: Head of Development, CIP, www.cip.com



Photos: from top – Westbourne Green; Allen Gardens; Boston Manor Park.

Celebrating Urban Flora

A cosmopolitan history

London's wild flora has much in common with its human community. Some of our parks and gardens contain communities of wild flowers and animals that have been here for centuries, relics of the countryside that became absorbed into the city as London grew. Other species have arrived more recently as a result of human activity, often from distant lands.

Nowhere is this more evident than on 'brownfield sites' — previously built-land such as derelict industrial sites and development plots. This colourful spontaneous vegetation — typically including buddleia (from China), Oxford ragwort (from Sicily) and goat's rue (from Eastern Europe), intermingled with garden plants like Michaelmas daisy or Canadian golden-rod — is a source of joy to many people. To others they are just urban weeds.

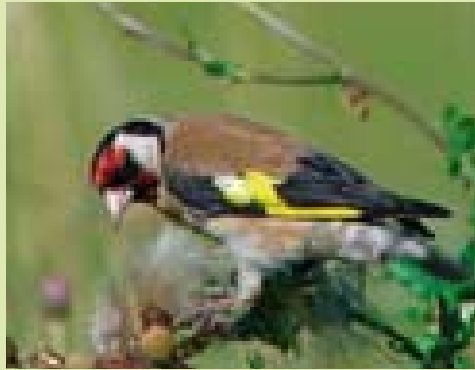
What is a weed?

From an ecological standpoint, a weed is simply a plant that is growing where it is not wanted. A dandelion is welcome in rough grassland, but a weed in a flowerbed. The garden bluebell is a good plant for a back garden but a weed in ancient woodland where it can interbreed with native bluebells. Large stands of creeping thistle attract dozens of butterflies, but are unlikely to be wanted in a 'pictorial meadow'. It comes down to a question of context. A tangle of tall grasses, willowherb and stinging nettles may not sit well next to a rose bed, but may be acceptable towards the back of the park, or around the edges of an informal recreation ground, where it may draw in an added bonus of bees and butterflies.

New parks from 'brownfield'

Where new parks are created on brownfield sites, there may be opportunities to work with, rather than against, the existing urban flora on parts of the site. Areas of 'urban wild flowers' on stony ground are likely to attract a richer community of wildlife than a typical low maintenance ornamental shrubbery. This approach is likely to work best in sites that are fairly open; sunny, sheltered conditions are better for bees and butterflies.

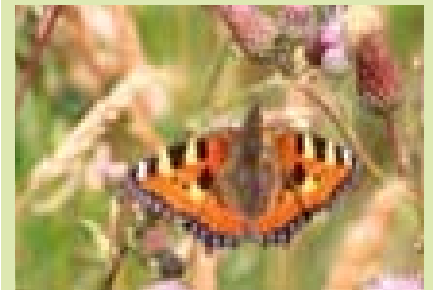
It is important, of course, that the site is made safe for public use and that 'urban wild flower' plots do not look neglected. Litter must be cleared regularly just as in the rest of the park. An annual cut back will help maintain a primarily open habitat. It may be best to keep some of the most vigorous wild flowers like mugwort or hoary mustard in check to promote variety. A few particularly popular and robust perennial wild flowers such as oxeye daisy or bird's-foot-trefoil could be added from seed for extra colour.



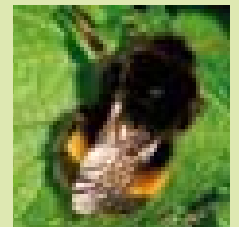
Goldfinches have to forage amongst the tall herbs of brownfield sites.

Welcoming bees and butterflies

Long grass and wild flowers will attract a far greater variety of bees and other insects than mown turf, simply because it offers so many niches for small creatures to forage, shelter or breed. Invertebrate animals make use of a range of different habitats at various stages in their life history and are often quite specific in their needs.



Some of the brownfield sites in the East Thames area support a particularly rich community of insects, including a number of rare bees, which burrow into light, stony soil in sunlit sites. Where parks are created on brownfield sites, it may be possible to retain pockets of habitat or replicate suitable habitat in some areas. A first step, before site remediation works or landscape design, should be to undertake a full ecological



survey to assess the site's potential. For further information on managing for rare invertebrates contact Buglife, the invertebrate conservation charity. www.buglife.org.uk

Mountsfield Park, Lewisham,

In the regeneration of the wilder parts of this park, the managers chose to let natural colonisation lead the way. They broke up the tarmac in a derelict playground, which was due for replacement, and left the plot to evolve naturally as an example of urban wasteland. Part of a former 'redgra' football pitch, which was prone to puddling, was also left to colonise naturally, gradually evolving into damp meadow. Inspiring sculptures help to highlight the significance of the project and an interpretive panel explains what is going on.

Both plots are managed by an annual cut back, removing the cuttings. An advantage of this approach is that it leaves room for surprises; but no one expected a bee orchid! Contact: Regeneration and Ecology Manager www.lewisham.gov.uk



Mile End Park, Tower Hamlets.

In the late 1990s, this park benefited from a rare opportunity to undergo a major landscape restoration, in consultation with the local community. The vision of the management today is of a park where inner city people can enjoy a wide variety of social, cultural and sporting activities, but also feel a sense of countryside in town.

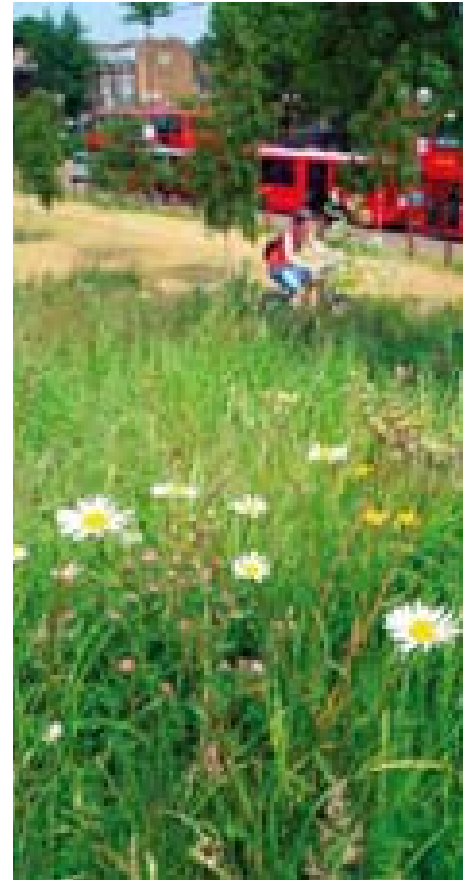
Around the edges, where mown turf or ornamental planting is not required, the grass is left to grow up through the summer, together with naturally occurring wild flowers. A meadow mix was sown in some areas, and clumps of bird's-foot-trefoil and oxeye daisy now grow intermingled with more typically urban wild flowers.

Hand pulling by the park's rangers and occasional groups of corporate volunteers, helps to keep over-vigorous species like hoary mustard and cleavers in check and maintain an attractive sward.

House sparrows

The decline of London's house sparrows has caused widespread concern. We still do not fully understand its causes, though two key factors appear to be finding enough small insects to feed their young in early summer and the need for a good supply of seeds in autumn and winter.

House sparrows used to forage on brownfield sites, which often offered a rich harvest of seeds. London has lost hundreds of these in recent years. But we can encourage our remaining



population by leaving areas of long grass and wild flowers; low weeds of flower beds and around the edges of parks can also be of value. House sparrows like to gather in creeper-clad walls or dense bushes, such as tall hawthorn or privet. Maintaining pockets of tall dense shrubbery, leaving areas of longer grass with urban wild flowers and taking a softer line on weeds where formality is not a top concern will all help.

Further information contact RSPB London office, email: London@rspb.org.uk





Trees and Woodland

Tall and stately, slender and graceful, or old and gnarled, whatever their form, trees and bushes play an important part in the identity of a park. They mark the changing seasons and hold strong cultural resonance. Some have been part of London's landscape for centuries; new trees will help to define the landscapes of the future.

Trees for today and tomorrow

Many of our best-loved parks and gardens were developed in the Victorian era. Park keepers of that day complained how difficult it was to establish trees, especially oaks, in London's smoke-filled air. One exception was the London plane, which, thanks to its ability to shed part of its bark each year, was able to withstand the pollution to become the dominant species in the city's treescape a century later. Today we face a range of different problems. Park managers are more concerned with water stress, an early sign of our changing climate. We need to choose trees which can establish well in our present climate to provide shade for future generations in the much warmer, sunnier summers expected in the years ahead.

Trees for people and wildlife

Trees are also important as wildlife habitat. The kinds of trees in a park, and how they are arranged and managed – whether they stand alone as specimen trees, or grouped in tree lines or perhaps in a spinney or woodland – will have a major influence on birds and other wildlife which may be found in the park. Including a good proportion of native species is likely to be beneficial as these tend to support a richer wealth of insect life. But the structure of the planting is equally important – it is not always appreciated that many of our favourite songbirds depend as much on the understorey trees and shrubbery as on the taller canopy species. Woodland is the most valuable habitat, with layers of canopy, understorey, scrub and field layer supporting a whole community of birds, insects and other wildlife.

Trees for the future

Choosing trees is a complex process, drawing on aesthetics, location, cultural considerations and function as well as wildlife value. London's changing climate adds a new dimension to the task. We need to consider how different species will respond to a warmer climate, with greater variation in water availability, and also look afresh at the landscape to see whether it will provide enough shade for future generations. In hot dry summers, woodland tends to offer cooler, moister air than more open landscapes – an antidote to parched streets.

The Mayor's Tree and Woodland Framework offers guidance for tree planting and creating new areas of woodland within a strategic context for the capital. Its 'Right Place Right Tree' code, set out in a simplified form here, is a useful starting point for new planting. Linked to this, the Right Trees for a Changing Climate database lists the characteristics of tree species, to help choose the right trees for the climatic conditions that London and other urban areas in the UK are expected to experience for the rest of this century. www.right-trees.org.uk

Enhancing wildlife value

As with any enhancement aimed at improving wildlife value, a first step is to assess what is there already. If the park contains relict communities of uncommon habitats, such as ancient meadow, the wild flowers of the open landscape should take precedence over substantial tree planting.

Next, consider the vegetation structure. Trees that are grouped in woodland or set amongst tall shrubbery offer a greater variety of niches than a single line of trees around the edge of the park. However, it is often possible to enhance an existing landscape by a few simple steps. Planting a native species hedgerow around the edge of the park, and allowing the grass and wild flowers to grow up nearby can lend a rural touch to an urban recreation ground. Developing a small spinney of bushes around a few parkland trees can create mini-pockets of woodland in an otherwise open landscape, offering nesting habitat for the robin or the wren. Leaving the grass uncut around an ancient oak tree could allow acorns to germinate and so begin the next generation. Perhaps you could fit in a small community orchard; this could be a popular project for local families.

The London Plan seeks to create 20 ha of new woodland by 2015; some of this could be in parks. New woodland is most valuable for wildlife where it links pockets of existing habitat, so plants and animals can disperse from one plot to another. The London Biodiversity Partnership is producing a Woodland Spatial Framework for London to identify locations where tree and woodland planting would best serve environmental, social and economic needs. It is not necessary to plant in solid blocks – an undulating ribbon of trees and bushes around the edge of the park may offer a sense of woodland that is less isolating than a close-set plantation. A useful guide to establishing woodland in towns has been produced by The Woodland Trust. www.woodland-trust.org.uk/publications

Trees for a changing climate Right place, right tree checklist

Right place?	Check that the plot is not already an important wildlife habitat, such as herb-rich meadow, which could be threatened by shading.
	Check historical records to see if the site has been tree covered in the past – this may help to assess its suitability for trees or woodland
	Consider nearby buildings and infrastructure: trees should not be planted where they will have poor growing conditions.
Right tree?	Local character: check if there is a history for particular species that could be reflected in the planting.
	Work with nature: where appropriate, use a good proportion of native species. In the most natural areas, especially if the park has fragments of ancient woodland, use locally native stock. Best of all, allow natural colonisation.
	Great trees of the future: where the setting allows, consider planting large species with a long lifespan.
	Check final height and spread against available space to minimise the need for pruning.

Allowing long grass and wild flowers to grow up around a few mature trees, and perhaps planting a few hawthorn, dog-rose and ivy can create woodland 'stepping stones' for wildlife.



Queen's Park, Brent

A popular historic park, which lies in a densely populated area, this site is managed by the City of London Corporation. The managers wanted to enhance the park's biodiversity. A little-used area towards the north of the park – which had previously been typical urban parkland of mature London plane trees standing over amenity grass – was selected for this project. Schoolchildren were invited to plant native species hedgerows, and the grass and naturally occurring wild flowers were left to grow up under the trees. A few more wild flowers were introduced for extra colour. Loggeries were added for stag beetles and bird nest boxes installed. Interpretive boards explain what is going on. The area is gradually developing a woodland character. Mowing has also been relaxed and wild flowers introduced into several other parts of the park. The site has now been re-graded as a Site of Borough Importance for Nature Conservation. Contact: www.cityoflondon.gov.uk/openspaces

Inwood Park, Hounslow

Planting a group of trees is a relatively easy task. Creating woodland is another matter. Britain's best woodlands have evolved over hundreds of years, gradually building up a complex community of plants and animals, as well as a host of fungi and micro-organisms in the soil. Young woods have simpler ecological communities with fewer flowers. This is partly because woodland flowers tend to have poor dispersal mechanisms, with seeds spreading only a short distance each year. In urban sites we can help things along using commercially grown wild flower seeds, bulbs or plugs. Note, though, that native bluebells can be difficult to establish from seed. It is also important to source bulbs from a supplier who does not take bulbs from protected woods. At Inwood Park, the Friends Group helped to plant a new woodland, adding bluebell bulbs a few years later. These have established well, bringing a welcome splash of colour in spring. Contact: www.cip.org.uk.



Photos from top: Queen's Park; Inwood Park; bluebells in Inwood Park.

People, safety and woodland – striking a balance?

A woodland or woodland garden can be a huge benefit to a city park; winding footpaths offer a sense of adventure and tangled undergrowth provides a natural habitat for a game of hide and seek. In woodland, perhaps more than anywhere else in the park, people can feel a real sense of countryside in town, surrounded by living nature.

However, for some people, woodland can also seem a threatening environment. In truth, the incidence of crime involving physical attack in London's woodlands is small, by comparison with other parts of the urban landscape. Nevertheless, some people feel ill at ease where they cannot see or be seen from more public areas. Unfortunately, also, some individuals take advantage of secluded conditions, by engaging in anti-social activities. Though not in themselves threatening, such activities can make the area unattractive to other users. It may then become under-used, attracting unsightly litter and a sense of neglect.

Studies show it is not usually the case that people want wilder and wooded landscapes eliminated from their park. Even for those who choose not to venture inside a woodland, tall trees and shrubbery may be valued as part of the backdrop. Park managers need to strike a balance between offering a chance for adventure and maintaining a sense of security. An ideal park offers a variety of opportunities, so people can tailor their visit according to their circumstances and inclinations on a particular day.

Managing woodland and tall shrubberies both to encourage public enjoyment and maintain its wildlife value is a key challenge for managers. Solutions will vary from site to site – what is appropriate in a small inner city site may differ greatly from an extensive site in the suburbs. Overall, the best way to promote security is to make sure a site is well used.

Tips for improving perceived security in tall shrubbery and woodland in parks

- Maintain a welcome for all, keeping taller shrubbery and woodland away from main entrances and through routes.
- In tall shrubberies, maintain a stepped vegetation structure with lower bushes and herbaceous plants along paths.
- Keep vegetation cut low near bends in paths to improve sightlines
- Consider enclosing denser planting behind railings, so people are less likely to be threatened by a sudden intruder
- Consider running paths along one edge of the woodland, with a view across an open landscape on the other side
- Make sure at least one circuit is accessible to all, with reasonably smooth surfaces and regularly trimmed pathside vegetation.

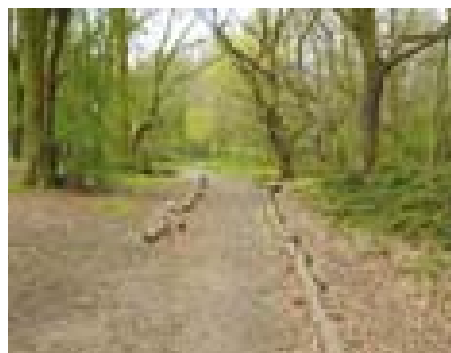


Kensington Gardens, The Long Water Sanctuary, The Royal Parks

In the Central Royal Parks, most of the denser shrubberies and woodland are enclosed by railings. Birds and other wildlife benefit from undisturbed habitat on their side of the fence. People feel safer with an open view on one side, and are not at risk from intruders emerging suddenly from the undergrowth. Where birds and people meet at the interface, everyone benefits from some social interchange.

Russia Dock Woodland, Southwark

As its name suggests, this woodland was created on the site of one of the former Surrey Docks. Like many young planted woodlands, 20 years on, it had grown into a thicket of overcrowded trees and scrub. It also felt unsafe. London Borough of Southwark began a programme of tree thinning and coppicing, opening up sightlines along the paths. The pathways are now much better used. Wildflowers thrive and speckled wood butterflies dance in sunlit grassy clearings alongside the paths. Contact: Borough Ecologist, www.Southwark.gov.uk



Public safety and veteran trees

Old parkland trees are cherished features of the landscape. Some are relics of former wood pasture landscapes, others of farmland of bye-gone days. Most have great wildlife value, offering a wealth of nesting crevices and foraging opportunities for birds, bats and other wildlife. They also support uncommon fungi and insects, often associated with dead timber in the tree canopy. Maintaining these old giants in a public park presents challenges. Some may be near the end of their natural lifespan. Some may require pollarding to prolong their life. Public safety is crucial.



Richmond Park was declared a National Nature Reserve specifically for the invertebrate communities in its ancient trees. A risk assessment is now carried out on individual trees, taking account of the importance of the tree, the risk of falling boughs and the extent of public access. Where it is not practicable to retain dead wood in the tree canopy, a log pile on the ground is a second best. It can also provide a great natural playground for small children. Contact: Community Ecologist; www.royalparks.gsi.gov.uk.

Tooting and Clapham Commons

South London's Metropolitan Commons are valuable open spaces for people and wildlife. Much of their natural value lies in pockets of scrub and woodland, which provide cover for birds. These have been subject to antisocial behaviour and historic neglect.

Lambeth and Wandsworth Councils have worked closely with a broad range of local community groups to develop appropriate policies for their open spaces, including a Public Sexual Activity Policy. This policy aims to reduce the crimes against the person, such as robbery and assault, while reducing overall sexual activity on the Commons. One outcome was a closer working relationship with a broad range of community groups, encouraging them to become more involved in the management of the Commons.

The management of some of the more densely wooded areas has been adjusted to improve views through the site. At

Tooting Common, most of the wooded areas are now managed by cutting back brambles and scrub when they grow over 1m tall.

Inevitably there has been some impact on wildlife value associated with dense woodland scrub, but this is being compensated by creating open woodland glades and allowing a ground flora and understorey to develop, with obvious benefits to invertebrates and birds. Concurrent with the improvements in woodland management, more people now feel able to enjoy the wilder parts of the Commons.

Contacts:
Principal Parks Officer, Biodiversity
www.wandsworth.gov.uk

Project Officer (Communities & Education, Parks and Green Spaces)
www.Lambeth.gov.uk

See photo bottom left - Tooting Common.

Squares and woodland gardens

London has hundreds of small parks and squares, with over 600 protected under the London Squares Acts. Most of the older examples were originally designed as formal gardens, often by famous 18th and 19th century landscape designers, and many have become recognised as registered historic landscapes. With their abundance of mature trees and luxuriant shrubberies, some have acquired the character of woodland gardens. To birds flying over the city, these must seem like veritable oases amidst the concrete. Although they cannot compare in species richness with natural woodland, some of these gardens support an impressive variety of birds. They also serve as stepping-stones for birds in transit, a shelter and re-fuelling stop before moving on. The London Biodiversity Partnership recently undertook a survey of almost 300 small inner city gardens to try to draw out best practice for management, which both encourages wildlife and respects the historic design.

The survey showed that the closer the vegetation came to mimicking a natural woodland, with mature trees, sub-canopy trees and shrubbery of varying heights, linked with a light-touch, wildlife-friendly management, the greater the variety of birds. For birds whose ancestral home is woodland or woodland edge, the extent of shrubbery seemed to be a key factor; the robin, wren, dunnock and great tit were all more common in sites with 30 per cent or more shrub cover, whereas the feral pigeon, carrion crow and starling were equally at home in a more open landscape of standard trees and grass. It was clear that for some species, especially great tit and long tailed tit, tall shrubbery is much better than low ornamental planting. House sparrows favoured tall dense bushes such as privet and hawthorn. Ivy-clad trees were shown to be beneficial for many species, offering both feeding and nesting habitat.

The guidelines set out here bring out key factors identified in the survey which should help to encourage wildlife. They can be applied to any garden square or small urban park with a traditional landscape of trees, grass and shrubbery, where the character of the site requires a semi-formal landscape.



What makes a good garden square for wildlife?

- Plenty of trees and shrubbery or hedgerows, including some tall and dense bushes.
- Native and ornamental varieties can be mixed; vegetation structure is more important.
- Ivy clad trees and creeper clad walls to provide additional nesting cover.
- Allow natural colonisation by wild flowers under shrubberies.
- Allow some areas of long grass, perhaps with spring bulbs.
- Retain dead wood where it is safe to do so.
- Berry bearing bushes for autumn and winter food.
- Compost leaf litter to create a mulch and help retain soil moisture in dry summers.
- Bird and bat nesting boxes and feeders.



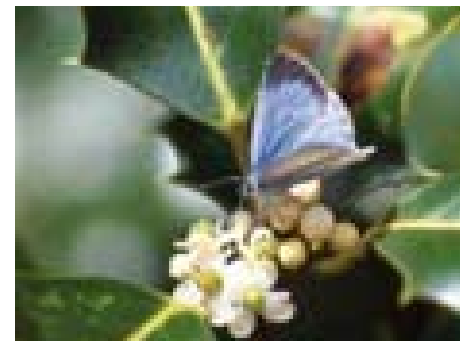


Small parks and squares with a landscape of scattered trees and amenity grass with only a little sparse, low shrubbery, can expect flocks of feral pigeon, wood pigeon and crow, with perhaps a few blue tits and blackbirds or an occasional flock of starlings.

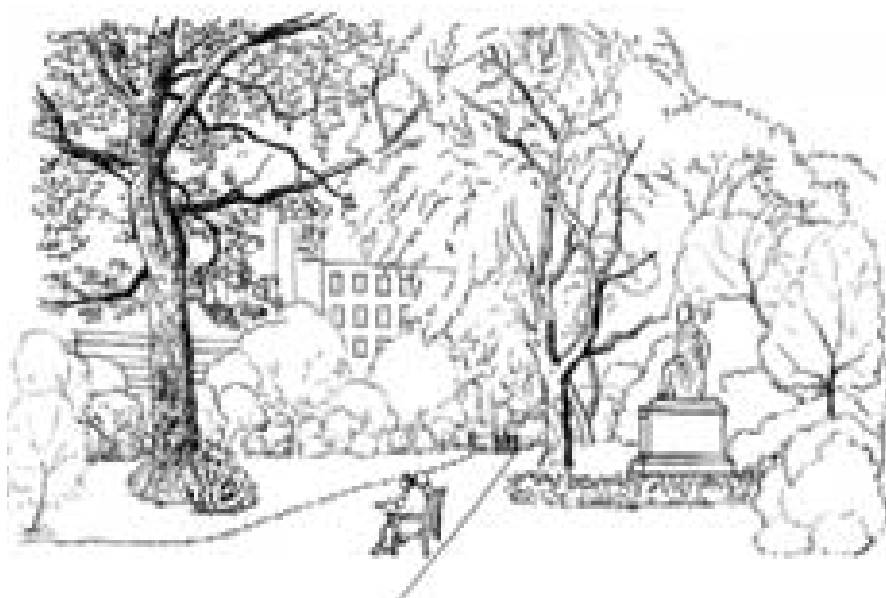
Great spotted woodpeckers have become commoner in London in recent years and now nest in some of the more wildlife-friendly parks and squares. Keeping dead wood in the tree canopy, where it is safe to do so, can encourage them.



The **holly blue** is one of the few butterflies to breed regularly in London squares. It lays its eggs on flower buds of holly and ivy. Ivy flowers best where it is growing in reasonably light conditions, in an upright, not trailing, form.



The **robin** forages mainly amongst the shrubbery and smaller trees, looking for worms, small insects and seeds. It nests in secluded nooks and crannies, often in ivy or other wall-clinging shrubs, sometimes in hanging baskets, bags or even pockets of old coats. Having plenty of ivy will encourage them to breed in your square.



A landscape which mimics natural woodland offers a wider range of niches for feeding and nesting, and is likely to attract a far greater variety of birds. A site like this might attract a dozen or more bird species, such as robin, wren, dunnock, chaffinch, greenfinch, goldcrest, great tit, long-tailed tit and perhaps a song thrush, blackcap, chiffchaff or even a great spotted woodpecker.

Bird feeders help birds to get through the winter. By placing them near to seating or close to a footpath in a woodland garden, people will gain a closer view of the birds. Feeders that have been designed to encourage pigeons and squirrels can help to ensure the smaller birds get their fair share. It is important to keep the feeders clean, and clear away excessive food to discourage undesirable wildlife.

The **mistle thrush** forages in wide open areas of short grass, but needs tall trees, from which to deliver its fine song. It also visits tall bushes, such as holly and hawthorn, to feast on berries, especially in autumn.





Lakes, Ponds and Rivers

Water features were often included in the design of the earliest parks to provide a change in landscape and mood. Opportunities to sit by the shore of a healthy lake or pond will become increasingly valued in the hot dry summers which are predicted for the future. The traditional park lake also provides one of our first interactions with wildlife – feeding the ducks.

Park lakes provide a home to some of the most colourful wildlife you will see in a public park. Everyone enjoys watching the ducks and other waterfowl. Yet for a long time the wider biodiversity value of park lakes has been overlooked by managers.

We understand the need to manage the dry land habitat within parks and have regular maintenance schedules for this work. We have detailed knowledge of the requirements of the plants and trees and when and how particular horticultural tasks need to be carried out. However, when it comes to lakes or ponds, we have traditionally had little understanding of how the freshwater system works and have carried out very little regular maintenance. We have mainly relied on occasional dredging to restore water depth when the lake had silted up too much, but unless this is very carefully undertaken it can have a severe effect on lake wildlife.

Today, there are steps which can be taken to rehabilitate the park lake, improve its appeal to park users and enhance the habitat for a diversity of wildlife. A key is to know and understand the character of your park, know what people want from the lake and use this to influence the biodiversity you seek to encourage.

Restoring a lake or pond – where to begin?

A first step is to work out who and what you want the lake to be for. The main use is likely to be for passive recreation, giving visitors an enjoyable scene to cast their eye over, perhaps with occasional glimpses of water lilies, dragonflies darting by and ducks dabbling. If your lake currently falls short of this idyll, ask yourself why? What is happening that is preventing this from occurring?

A good starting point is to review the current uses and the effects these may have on the lake. Ultimately it may be necessary to change the way the lake is being used. Agreement about uses needs to be determined both within the managing organisation and with the users. People visiting the lake should be made aware of these issues and involved in deciding how these uses may be balanced in the future to create a lake that everyone can be proud of and enjoy.

What is your lake like now?

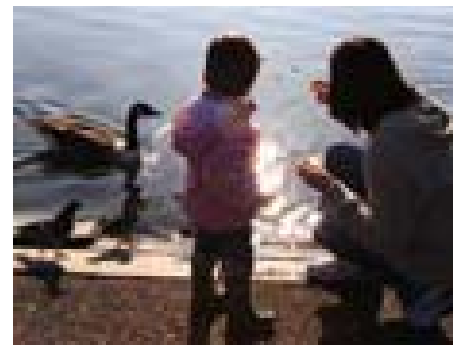
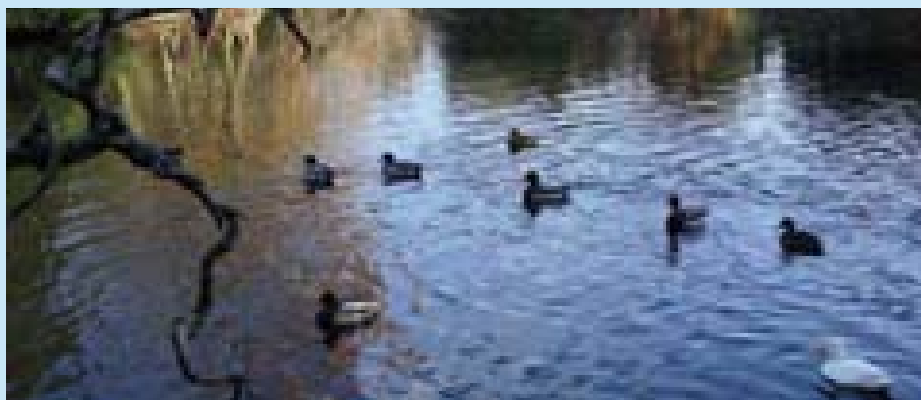
Before any changes in management are considered, you need to determine the current situation. This will require background information on the history and construction of the lake together with a good understanding of its current uses throughout the year. A visual survey will identify good and bad areas, with further research then being required to establish the causes of problems and possible solutions. Detailed surveys may be needed to analyse the water quality and determine the fish and bird populations.

What needs to be done?

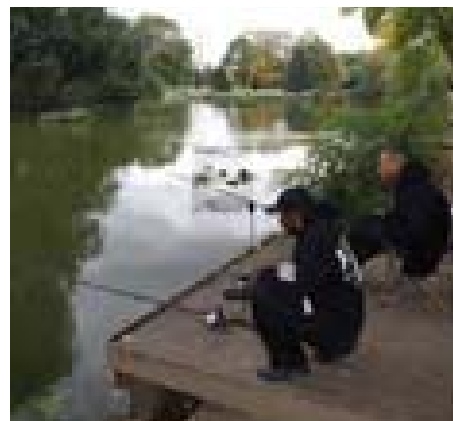
It is likely that a number of actions will be needed to restore a lake to a healthy state and then to ensure it stays in a good condition. A strategy will be needed, setting out desirable uses, management objectives and actions. It may be that a regular programme of maintenance actions will suffice to address the main problems, or that what is really needed is a large-scale restoration programme, which should be phased over a number of years.

Can we achieve it?

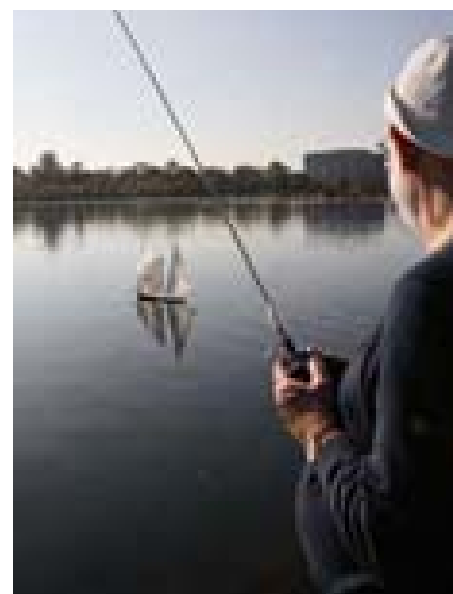
It is important that realistic targets are set. The type of biodiversity which can be encouraged will be closely linked to the water quality that can be achieved. Crucially, water quality itself is linked to the uses of the lake and the ability to carry out the management prescriptions.



Feeding the ducks brings us closer to nature, a favourite activity for old and young alike. But unless carefully managed it can bring problems for managing a healthy lake.



Enjoying a quiet spot of angling at Victoria Park west lake. Fishing platforms help to control numbers of fishermen and reduce their impact on the lake shore.



Model boating has been a tradition on the Round Pond in Kensington Gardens for many generations. The sunlit, shallow water required for this activity also provides good feeding habitat for tiny ducklings.

Wandsworth Common

This lake, which was historically excavated for gravel, is formed of three linked basins. By allocating a specific use to each, water quality can be maintained, and angling and biodiversity encouraged.

The basin closest to the water inlet is stocked for angling, helping to ensure fish health. Fishing platforms regulate the number of anglers. Vegetation is limited to prevent snagging of lines. Fish stocks are surveyed and numbers adjusted every three years. A fish barrier retains fish but allows water to flow through to the second basin.

The next basin is managed for amenity. Visitors are encouraged to linger, with seating and access to the water's edge in some places. Clumps of emergent vegetation encourage dragonflies. The third basin provides secluded habitat with dense reeds for shy birds like

moorhen. Submerged aquatic planting helps to maintain water quality. Contact: Principle Parks Officer (Biodiversity), www.wandsworth.gov.uk



Victoria Park, east lake Tower Hamlets.

This had become severely run down with virtually no fish and little other wildlife. Originally designed as a bathing lake, it is part of an historic landscape, which had to

be respected in any plans. Key problems were poor water quality, siltation and lack of vegetation. Facilities for angling were requested by the local community. Following advice from the Environment Agency, work began by dewatering, followed by silt removal. Much of the silt was banked up around the margins, held in place by posts and wire mesh to form a base for planting. This reduced the cost of removing it from site. Several miniature islands were constructed and planted with aquatic vegetation. Once the habitat had settled down, a mix of small fish, plus a few Crucian carp, were introduced. The planting has established well, and people can now enjoy watching the swans and other water birds. A kingfisher is occasionally sighted – a sure sign of improved water quality! Contact: Landscape Regeneration Manager www.towerhamlets.gov.uk

Photo below: Victoria Park east lake.



Lake enhancements – things to consider

There is nothing better on a hot summer's day than pausing at the lakeside, watching the reflection of passing clouds whilst enjoying the gentle splashing of a nearby fountain. Achieving this vision depends, perhaps more than anything else, on water quality.

Water

First, you need to think carefully about your water source. Some input is likely to be necessary to balance losses from evaporation and leaks (which are inevitable given the age of many lakes). The quality of that input will influence the water quality in your lake and hence the wildlife which can be supported. Maintaining good water quality may become an increasing challenge in the warmer summers expected in the future.

Water quality monitoring is an essential part of good maintenance; this is a task for specialist consultants who can feed back to you on how your water quality is being affected by your management. A key factor will be your water supply. Options for water supply include drawing from a nearby stream or river; drainage or run-off from surrounding land (though this may bring pollution if it includes road run off); mains water supply; or a borehole. The Environment Agency and water companies regulate the use of water and will need to be consulted.

Oxygen

Closely linked to water quality is the level of oxygen in the water. Oxygen is essential to most forms of aquatic life. If you can ensure that oxygen is getting into your water, either from appropriate, generous and well managed aquatic planting or from aerator systems, such as fountains, waterfalls or air diffusers, you will be going a long way to supporting a wide range of aquatic invertebrates. These small creatures, invisible below the water surface to most visitors, in turn form the basis of a healthy food chain.

Plants

Imagine your lake complimented by water lilies, fragrant water mint and tall stands of purple loosestrife, reeds and rushes. Not only adding visual interest, the plants provide feeding opportunities for damselflies, dragonflies and butterflies. Reedbeds are a priority habitat in the London Biodiversity Action Plan and, even in central London, they can attract nesting reed warbler. By absorbing nutrients, and in some cases supporting micro-organisms that consume undesirable algae, reeds and other tall aquatic vegetation help to maintain water quality.

Planting can echo key themes within the wider park. For example, in an historic landscape the planting could merge seamlessly with herbaceous planting on the shore. If you manage a more naturalistic environment, you might allow small areas of willow and alder to develop in a way that mimics natural succession.



St James's Park, The Royal Parks

St James's Park is probably the most famous place in the land to feed the ducks. However, the large number of waterfowl brings challenges for management. The larger birds trample and eat vegetation and their droppings enrich the water, in turn impacting on oxygen levels. Much has been done to address this, including installation of fountains and a borehole water supply, though problems can still arise, especially in hot dry summers.

Bird populations are controlled to an extent by preventing breeding in the larger geese. Reedbeds have been planted, providing a visual barrier to break up flight paths.

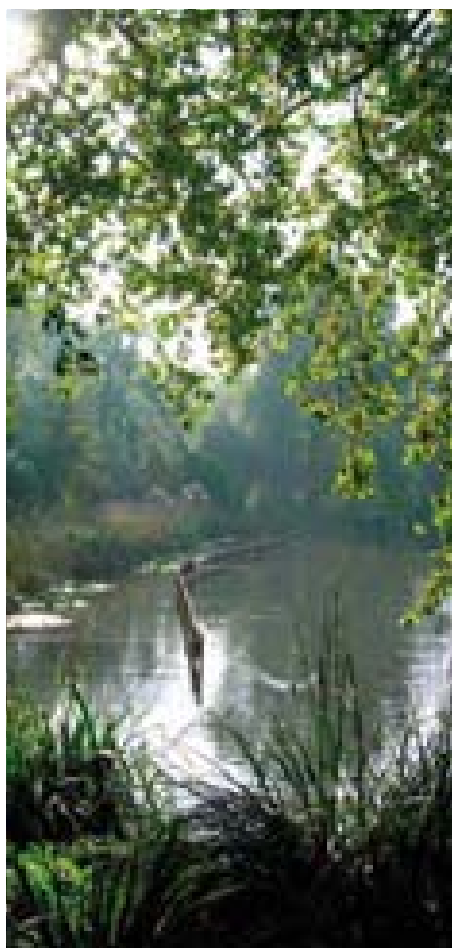
Public access to the water's edge is restricted by low fencing, to reduce the number of places for bird feeding. Publicised feeding times for the exotic birds, especially pelicans, allow people to watch these birds being fed without giving unnecessary or inappropriate food. Contact: Community Ecologist: www.royalparks.org.uk

Is a borehole the answer? Battersea Park, Wandsworth

A borehole was the preferred source for Battersea Park when the lake was restored in the early 1990s, and has been supplying the lake since 1994. This has involved both capital and revenue costs, plus the cost of electricity for the pumps. An annual licence stipulates the amount of water that can be abstracted.



Quarterly water quality monitoring serves to assess the physical condition of the lake and flag up impending problems, such as undesirable algae or suspended sediments. These can often be alleviated by turning on the borehole to increase the flow. Contact: Principle Parks Officer (Biodiversity). www.wandsworth.gov.uk



Wildlife Management

The sight of ducks dabbling for food, with an occasional fish breaking the water surface, and perhaps a kingfisher flashing by, will gladden the heart of any visitor. To achieve this requires managing the wildlife populations.

To encourage a range of waterfowl you need to provide appropriate habitats, both for feeding and nesting. Consider where the birds can breed undisturbed, safe from predators. Is there an island, which you could make more inviting? Some waterfowl, such as mallard and tufted duck, like to breed in low scrub with rough herbage; others, such as moorhen and mute swan, prefer to nest amongst tall aquatic vegetation. Some species will use nesting rafts or specially-designed nesting boxes. Shallow, sheltered sunlit bays provide good feeding habitat for tiny ducklings.

Are there features you can establish to discourage the more dominant species, such as Canada geese? This species prefers an open habitat offering clear flight paths in and out of the water, with short grass for grazing nearby. Planting tall reeds around the edge of the lake or shrubbery on parts of the banks may make the lake a little less attractive to them.

Fish

What sort of fish, if any, do you want in your lake? Is it to be used for angling? Bear in mind that larger fish, especially carp, will compete for food with water birds, and impact on both aquatic vegetation and water quality. Do you want to encourage birds that eat small fish, like great crested grebe or kingfisher?

If it is a small lake or pond, you could make amphibia a priority; they will do better in a fish-free habitat. So these are complex choices. Advice on fish stocking can be sought from the Environment Agency's fisheries service or specialist fish management organisations.

Managing people

Surprisingly perhaps, good management of park lakes relies as much on managing the visitors as the lake itself. Planting can be a useful tool, for example by limiting direct access to the water's edge to certain places. This may reduce the amount of bread thrown into the water; excessive feeding compromises water quality, leading in turn to a reduced oxygen level.

Establishing priority areas for particular interests can reduce conflict. Could an area for anglers be identified which is separate from the area where children feed the ducks? Could boating be separated from an area cluttered with fishing rods? This brings us back to knowing who uses your lake, discussing with them what they want to do, and trying to get them to understand how their chosen pastime affects other users and the environment.

Wildlife ponds

If your park does not have a lake, a pond might provide another opportunity to create some aquatic habitat. A wildlife pond is relatively easy and inexpensive to construct and can fit well into a sunny corner of a small park or recreation ground. It can develop into a valuable community and educational resource; a healthy pond always has something to look at as it is always teeming with life.

Some key issues

Most of the issues discussed for lakes apply equally to ponds, but a few other points, which apply especially to smaller water bodies, may be helpful, especially if you are starting from scratch.

Year round water supply

Natural ponds in the countryside are often seasonal, drying out in later summer. Many pond creatures are adapted to this, having both terrestrial and aquatic stages in their life cycle. Amphibia are a case in point and will do better in a wildlife pond than a typical park lake as there will be fewer fish and other predators. But in a park setting, you will probably need the pond to retain water throughout the year; a small drop in water level in summer may be acceptable; much more and the pond begins to look neglected. So don't dig a pond unless you are sure of a water supply, and try to avoid mains water, which tends to be too nutrient rich.

Location

Choose a sunny spot; frogs prefer warm sunlit water for spawning. Dragonflies and damselflies also tend to be sun-worshippers. Avoid too many overhanging trees which will shade the water and increase the build up of leaf litter; this in turn increases nutrients, which will encourage algal blooms or mats of duckweed.

Lining the pond

Unless you can dig down to the natural water table, the pond will need lining. The main choices are butyl rubber and bentonite clay. Butyl rubber will need protection by a geotextile above and below to reduce the risk of damage from stones or vandalism. Bentonite can be purchased sandwiched between two geotextile layers for easier handling. It will probably be more expensive but has a number of advantages over butyl rubber. Both products tend to crack if exposed to sunlight in dry conditions, so take care how you construct the edges.

Profile

Shallow sloping sides are safest and provide opportunities for plants to establish. If you are planning a dipping platform, take this in a good way from the edge, so that if the water level falls in dry weather, people will still be able to reach over the water for most of the summer.

Public safety

If there are concerns over the safety of open water, consider whether it might be prudent to fence the pond; alternatively a marsh or bog feature might be considered instead.



Acton Park, Ealing

Ealing Rangers chose a low-lying spot at the foot of the hillside in Acton Park for this well-designed wildlife pond. The pond was dug in 2005, and lined with heavy duty welded plastic with geotextile above and below; this in turn was covered with 200mm of clay from the excavations to give further protection from sunlight and vandalism. Before this site became a park it had been dug for brick clay so the clay is of good quality.

The main pond is about 1.5m deep in the centre and has gradually sloping sides. A range of marginal and submerged aquatic plants was introduced. Frogs and newts from a nearby community garden soon found their own way in and various species of dragonfly and damselfly can be seen over the water in summer. So far the pond has held water throughout the summer without the need for topping up, falling only by about 20cm in the hot dry summer of 2006.

Nearby a second shallower pond, which is developing into a marshy area, serves as an overflow at times of heavy rain.

The pond has proved popular with visitors, providing a quiet reflective space in a busy park. A simple post and rail fence addresses concerns of water safety, but a dipping platform allows visitors to get close to the water and see what's going on.

Contact: Acton Rangers Office,
L B Ealing. www.ealing.gov.uk.

Restoring lost rivers

Brent River Park, Stonebridge Park

An extraordinary story of determination by a local authority (Brent Council) and the Environment Agency, together with a great deal of involvement from two very different communities, lies behind the pictures below.

The site lies next to the North Circular Road just down the hill from the new Wembley Stadium. It previously consisted of two rather uninteresting parks, separated by the River Brent, which flowed in a dank concrete channel. The communities on either side had little contact with one another and the river was seen as a hazard and an eyesore.

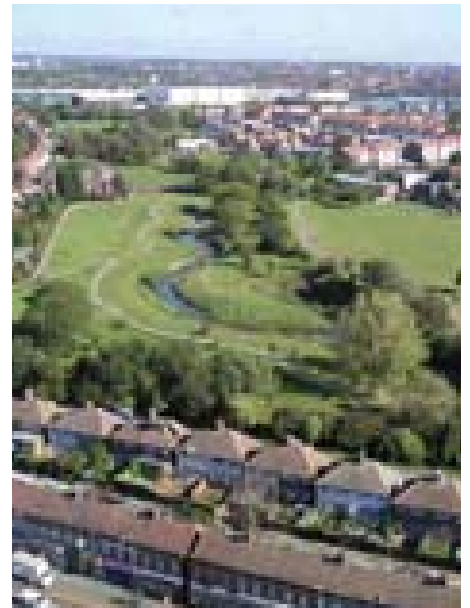
An early step was a 'planning for real exercise' to explore the options with the local community. It took four years of preparatory work, including complex engineering studies, landscape designs, and fund-raising for the £1.45 million needed for the first phase of the project. But the transformation has been remarkable. Instead of a straight concrete channel, the river now follows a meandering route, babbling over shoals of gravel, with wild flowers along the banks.

The landscape and engineering works have been integrated with community art projects, including some fine sculptures and mosaics. A new bridge has improved the connectivity between the communities on either side and increased the use of the park for walking to and fro between home and school or shops. New sports facilities for teenagers have also been developed. One of the pinnacles from the Twin Towers of the old Wembley Stadium stands in the park as a link with the past.

Many of London's parks and green spaces lie along river valleys. Historically, this reflects the fact that riverside land was prone to flooding, and hence escaped development. But over the years many of the rivers became degraded, then enclosed in concrete straitjackets to reduce flood risk, or worse still buried underground. Recent advances in river engineering now allow some of these streams to be restored to a more natural form. Soft engineering solutions, including the creation of wetland habitat which restores the link between rivers and their flood plains, can also improve flood risk management through providing areas for water storage. This should help to make the city more resilient to the heavy storms that are predicted to occur more frequently in the future.

The Environment Agency's River Restoration Strategies (for details see appendix) for North and South London identify stretches of watercourse which have potential for river restoration. A quick glance at these maps will tell you if any of your parks are likely to be suitable. The Environment Agency will be pleased to discuss possible options with you. A new River Restoration Action Plan is currently in preparation for the whole of London; this will add further impetus to the programme.

The waterside path has also been extended northwards, past an industrial estate, most of the way to the new Stadium. More work remains to be done and Brent Council still plan to fundraise to restore a further stretch of the river. Contact: Brent River Park Manager, www.brent.gov.uk



Flower gardens for a changing climate

Flowerbeds play a part in encouraging wildlife, both as a source of nectar and pollen for insects, and as a seed source for birds. Sustainable planting is a new approach to horticulture, which seeks to create a landscape offering a high aesthetic quality and good wildlife value, in return for a low level of resources, such as labour, water and chemicals. This requires careful selection of plants that are suited to local conditions. Important considerations will be the topography and aspect of the site (including shade cast by trees or buildings); soil structure (whether or not it is compacted or waterlogged); and soil texture (including drainage, hence the amount of water available to plants).

Sourcing plants from around the world

In response to our changing climate, landscape designers are looking towards drought tolerant plants from many parts of the world. One such source is the cool temperate grasslands of the American Prairies, Russian Steppes, New Zealand and the South African Veld. Plants from these areas are adapted to hot, dry summers, with considerably less annual rainfall than the UK. They offer us a fine range of summer and autumn flowering perennials, rich in pollen and nectar, with dried seed heads providing winter food for birds. Many of these plants seem to tolerate urban conditions well, even in heavier clay soil, provided the drainage has been improved with organic matter or grit. Another source is the warm temperate Chaparral of the Mediterranean, California and central Chile. The Mediterranean area has hot, dry summers and warm, wet winters. Many familiar, summer flowering, aromatic species, which are especially attractive to bees, hail from this region. In London, Mediterranean plants do well in open, sunny, well-drained sites, but cannot thrive in heavy clay or shade.

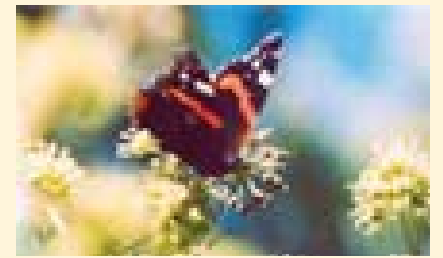
One of the hardest situations to plant is dry shade; London Parks contain many such areas under mature trees or in rain shadow of tall buildings. One solution is to use a range of resilient but attractive, flowering ground cover plants mixed with ferns, bulbs, woodland grasses and shrubs. Woodland ground cover plants tend to be spring flowering, taking advantage of higher light levels before the trees come into leaf. Early flowering varieties provide good sources of pollen and nectar for insects, which seem to be appearing earlier each year.

Planting Design

Good planting design combines the science of horticulture with the art of composition. A layout in which plants have one characteristic in common and another in contrast with their neighbour – for example in overall form or habit, shape of flower or leaf, texture and colour (creating subtle harmonies or bold complementary mix) – can help to create a rich design. Think also how the plants will be arranged: in blocks, in drifts or in a more informal naturalistic layout. The latter will require far greater skills from the operational staff. The designer needs to work closely with the contractor or grounds maintenance team so that all involved understand the overall aim of the design and know how to identify and maintain each kind of plant.

Encouraging bees and butterflies

Anyone who watches bees over a flowerbed will soon spot that they like some plants more than others. It comes down to scent, colour and whether they can reach a rich source of pollen and nectar. The nectar in many double-petalled varieties is hard to reach and only the heavier bees can open up a snapdragon. Some of our commoner butterflies visit garden plants, but they usually need wild plants for breeding; keeping areas of long grass and wild flowers will encourage them to breed in the park.



Some good plants for bees and butterflies

Spring	Bees	Butterflies
Crocus	+	
Grape hyacinth	+	+
Honesty	+	+
Wallflower	+	+
Anemone blanda	+	+
Bergenia	+	+
Early summer		
Lavender	+	+
Oreganum	+	+
Salvia	+	
Verbena	+	+
Campanula	+	
Allium	+	+
Scabious	+	+
Lavatera	+	
Late summer/ autumn		
Sedum	+	+
Achillea	+	+
Michaelmas daisy	+	+
Coreopsis	+	+
Eupatorium	+	+
Globe thistle	+	+
Purple Buddleia	+	+

Cumberland Market, Camden

A small inner city open space surrounded mainly by social housing, this site suffers from the normal problems associated with such localities. It is open and sunny but has heavy clay soil, so is unsuitable for Mediterranean drought-tolerant plants. The aim was to create a garden offering a colourful display, with some wildlife value, and also test out low-resource maintenance.

The plants chosen were mostly a mix of perennials, grasses and low shrubs, selected for vigour. This was partly so that any gaps caused by disturbance would soon refill, but also to discourage weeds. The design was based on each variety forming fluid blocks of about 6m², following the curves of the bed, so the overall effect would be visually strong and dynamic. A few large shrubs were added to provide perching and foraging opportunities for birds. Native trees were selected over exotic species. A low growing hedge of *Pyracantha* 'Red Cushion' was added at the front, partly as a protection from dogs and footballs. Before the planting, the plants were well watered and plenty of recycled organic matter was dug into the soil. A thick layer of mulch was applied afterwards. No irrigation was used during the first year—the hot dry summer of 2006 – and no watering, fertiliser or herbicide use is anticipated in future.

Contact: The examples described here are in L.B.Camden but the author is now Landscape Architect with L.B. Richmond. www.richmond.gov.uk

Waterlow Park Rockery, Camden

The Rockery is a high profile feature, which needs to look good for most of the year. It lies on a gently sloping, south-west facing plot, with relatively light, well drained soil. Inspired by Beth Chatto's gravel garden, a mixture of Steppe-style perennials and grasses, with low evergreen Mediterranean shrubs was chosen. Planting took place in December 2005. The *Cistus*, *Euphorbias* and *Stipa gigantea* were planted in 1m² blocks, and other plants in 2m² blocks. The plants

were watered to saturation just before planting and have received no further irrigation.

The plants performed well in their first year, both perennials and grasses providing visual interest and seeds for birds through the winter. They were cut back in February, with spring bulbs providing a splash of colour until the perennials regrew. Weeding was by hand pulling in the first year, but gravel mulch is proposed in future. No fertiliser, pesticide or herbicide use is envisaged.

Photos: below - Waterlow rockery; bottom left - Cumberland Market before; bottom right - Cumberland Market after.



Towards a reduction in chemicals

Chemicals have played a role in amenity land management for many years. Although the vast majority of pesticides used in the UK are for agriculture, local authorities are the second biggest user group. Moreover, although the amenity use of pesticides accounts for only about four per cent of pesticide usage in the UK, it is thought to cause around 15 per cent of the pesticide pollution incidents recorded in the aquatic environment. The largest use in amenity landscaping at present is the herbicides that are used to control 'undesirable' weeds, both in green spaces and hard surfaces such as pavements.

The term pesticide as used here relates to a wide spectrum of pest control chemicals; the types most widely used in landscape management are herbicides, insecticides and fungicides. They have in common that when used as designed they are meant to kill at least one group of living organisms. Of the many concerns over their use, not least are their possible negative effects on human health and on biodiversity. Pesticides have been linked to many serious health problems including cancer, endocrine disruption and cholinesterase inhibition.

In the past, some particularly toxic substances were used; perhaps the most widely known is DDT. In the 1950s this was thought to be a silver bullet for controlling insects, and was used extensively in the UK, especially in agriculture. What wasn't clear was the impact widespread spraying would have on other wildlife. In particular the knock on effect on birdlife was disastrous, leading to dramatic declines in certain species, especially birds of prey such as peregrine falcons. DDT is perhaps the best example of a substance that was once believed to be safe but was subsequently withdrawn as a result of the negative impacts on biodiversity and human health.

Other substances, which have been approved for use in the UK but subsequently withdrawn following concerns about their effects on biodiversity and/or human health, include most notably the herbicides Simazine and Atrazine. At present Diuron, a replacement for these two chemicals for hard surface weed control, will be removed from the market in 2008; this is mainly because of its persistence — a benefit at the point of use but a problem in the wider environment — linked to the fact that run off regularly contaminates ground water. It is likely that the gap will be filled by increased use of Glyphosate, as this is thought to be as effective but less persistent. However, serious concerns have also been raised regarding Glyphosate and its potential effects on human health, and the fact that it is less persistent means that higher volumes will be used to do the job that was once done by Diuron.

Why is there a need for change?

A number of significant drivers are likely to be pushing for change in the way local authorities use pesticides in the maintenance of public green spaces. Not least is the perception of the public; this can be broadly separated into two areas of concern — health, including adults, children

Brent

Brent Council made a commitment to develop a reduction strategy after joining the PAN UK Local Area Project in 1998. With the help and support of this organisation, they undertook a pesticide audit across five departments, looking at the function of the department, what products were being used, contract specifications, who applies pesticides, who knows that they are being applied and application guidelines. This is a good way to determine baseline data on overall usage. A notable achievement is the certification of Fryent Country Park by the Soil Association as organic. Some key points of the Brent scheme are:



- **Training** – including the required BASIS training for operatives and training aimed at changing the mindset of applicators to reduce over use.
- **Tolerance** – increasing the acceptance of minor infestations such as aphids which can reduce the need to spray and also encourage natural predators.
- **Mulching** – on beds and borders to suppress weed growth and make use of green waste.
- **Monitoring** – close monitoring of weed growth in the spring to spot and eradicate infestations early helps to reduce the need for remedial action.
- **Biological control** – for example, at Fryent Country Park blackthorn is controlled by encouraging adjacent species to compete with it for light.



Haringey

Haringey is considered to be a very 'green' borough. They have a long history of promoting non-chemical weed control, having banned the use of Atrazine and Simazine long before the approvals for the active ingredients were revoked by the Pesticide Safety Directorate. They were the first Council to try the "Waipuna" hot water system for weed control.

The Council has a pesticide use reduction strategy, and in particular the maintenance of their parks and green spaces is undertaken without the use of any herbicides. This has, amongst other things, helped them to achieve Green Flag status for many of their parks and green spaces, with eight awards in 2007.

Mulching is a key part of this strategy and is widely used to keep weeds under control. The mulch comes from green waste, and has been linked in with their recycling scheme, including Christmas trees.

The driver for Haringey has been the political will to be seen as green. This has been crucial in driving forward the pesticide policies. They have recently launched a consultation on developing the "Greenest Borough Strategy" aiming to be one of the greenest boroughs in London.

www.haringey.gov.uk/goinggreen

and even pets, and the environment, including potential effects on wildlife and water quality. Civic pride is also a key driver; pesticide reduction can help in achieving Green Flag status for local parks. This can bring with it further benefits such as publicity, help in achieving Beacon Status, and associated opportunities for regeneration and revenue funding.

Perhaps the most significant driver for change will be legislation. At present the European Union is discussing a new directive on the sustainable use of pesticides, which will include recommendations for how pesticides are used in the amenity setting. Whilst the legislation will not be finalised until the middle of 2008 at the earliest, the draft text that has been approved by the European Parliament and the Council of Ministers includes a paragraph that includes:

"the use of pesticides shall be prohibited in all areas used by the general public or by sensitive populations, at least in residential areas, parks, public gardens, sports and recreation grounds, school grounds and playgrounds. In all these areas non-chemical alternatives should be used; local inhabitants shall always be informed about the time, the place and the possible effects of the sprayings." Whilst this might change, it is clear that the intention of the EU is to limit and reduce the use of pesticides in public spaces. Once the legislation is agreed any measures will have to start being implemented in 2011, so it would seem sensible for local authorities to start looking at developing pesticide reduction strategies soon.

Key elements of a pesticide reduction strategy for parks and green spaces?

- A well developed communication strategy, which is aimed at both informing and involving members of the public.
- A clear and well thought out plan of action that does not mean an overnight switch to a new regime, but rather a well structured step by step approach. A very good example of this is in the US city of Lawrence, Kansas (see reference list).
- The ability to pilot the scheme in small areas first in order to be able to identify problems and to train staff.
- A long term commitment of support from the council that will help with funding for equipment and staff training.
- An initial focus on stopping the use of the most potentially hazardous pesticides, as a preliminary step to eliminating all pesticides, apart from those required to eliminate invasive species or for human health reasons, such as rodent control.
- Exchange of experience across different boroughs, for example through the London Parks and Green Spaces Forum.

Photos: above left - Fryent Country Park; above right - Stationer's Park



Creating a welcome

Investment in biodiversity enhancement aims to enrich people's enjoyment of green spaces. If we fail to attract a good cross-section of society, is this a wise use of resources?

The final section of this book investigates some of the reasons why certain groups do not gain full benefit from their local parks and green spaces. It also considers how we can encourage young and old to gain a deeper appreciation for a park's natural riches.

Parks are for everyone, and for the most part paid for from the public purse. But it is a sad fact that people from some sections of society, who might enjoy a trip to the park, out in the fresh air, in contact with nature, and perhaps even more importantly interacting with other people, are under-represented in visitor statistics. Barriers might be physical, social or emotional. Nicola Harper examines some of these barriers and what can be done to overcome them.

Every park manager experiences some degree of destructive antisocial behaviour. Sometimes this is linked to a feeling amongst certain groups that the park, or some part of its landscape, is not for them. Ruth Hayhurst explores how we can help to foster positive attitudes.

Throughout this book, we have emphasised that, although contact with nature offers excellent opportunities for environmental education, wonderful though that may be, it is also about the sights, sounds and smells which we can experience while we are out for a tramp, having a picnic, or just sitting quietly contemplating the issues of the day. So we end with a piece by Tim Gill which considers how children can explore the natural world through play.

Access for everyone?

The gate is open; the flowerbeds well maintained; there are plenty of ducks on the pond and the woodland garden is reasonably free from litter. So is everyone free to come in and enjoy what is on offer?

The Disability Discrimination Act 2004 means that all providers of goods, facilities and services need to improve access for disabled and Deaf people by making reasonable adjustments. Everybody benefits from using public green spaces. There are around 10 million disabled and Deaf people in the UK who are able to equally enjoy public green space, but may need services provided in a slightly different way to make sure they are included on an equal basis.

Landscape features which make it difficult for people with mobility impairments to enjoy the park are perhaps the most obvious for green space managers to consider. However, people with sensory impairments or people on the autistic spectrum will face different problems, which will impact on their ability to enjoy open space equally. For example, blind or partially sighted people might find the presence of bikes on a shared footpath or minor irregularities in a footpath difficult, and low overhanging branches or brambles can be dangerous. The Sensory Trust offers specialist advice on access for people with sensory impairments.

Most of us, as we get older, are likely to experience some degree of physical or sensory impairment, which makes inclusive access to public green space important to all of us. Simple measures like providing a strong handrail beside a flight of steps, cutting back path-side vegetation, making sure path surfaces are as even as possible, and that hoggins are topped up and potholes filled in along informal tracks through wilder areas will all help to extend the welcome.

Sometimes negative attitudes can present barriers; for example, people with learning difficulties or mental health issues have reported distressing incidents where people calling them names has discouraged them from visiting a park. Some people may worry about getting lost or have difficulty reading a map, or the number of a bus that goes to the park. Good signage can be a real help here. Friendly staff, who are well informed about the barriers faced by disabled and Deaf people, can be invaluable in ensuring that everyone can enjoy what is on offer.



As we get older, our needs from green spaces and capacity to explore them may change, but the value of being in a natural green space does not diminish.

A few points to consider

Everybody wants to enjoy the park and have opportunities for exploring and fun. A few simple things will easily enhance access for everybody whilst retaining the character of the park.

- So far as possible, create one good quality path suitable for wheelchairs and others with limited mobility round all the main landscape features in the park. Keep hoggins and bark chip surfaces for minor winding paths.
- Where adult cycling is allowed, try to have segregated shared use or separate cycle paths especially for through routes across the park.
- Ensure that the main paths and steps have clearly defined edges to assist people with visual impairments.
- If you plan a boardwalk e.g. through a wetland habitat, include passing places for wheelchairs; they can also serve as viewing points.
- Consider an area of raised beds so people don't have to bend down to the flowers.
- Plenty of seats, including some with backs and arms – many older people have difficulty getting up from seats without arms.
- In play areas make sure that disabled children are included.
- Accessible toilet facilities are important for everybody, but particularly vital for many older and disabled people. They must be fully accessible and where possible include 'Changing Places' type facilities.
- Good clear signage with plenty of contrast in accessible places and at accessible heights is crucial.
- For larger parks, include car parking for Blue Badge Holders and try to ensure it can be reached by accessible public transport. Easily accessible information should be provided on transport options including parking.
- Build a relationship with your local organisation of disabled and Deaf people, who will provide further guidance.
- Consider training staff in basic Deaf awareness and sign language skills.



Mobility buggies, Hampstead Heath

The chance to explore a really large, wild open space has recently been opened up for people with limited mobility, thanks to an innovative approach by the City of London Corporation on Hampstead Heath. Disabled people can now borrow an electric buggy, by prior booking, to explore the Heath. For some of its devotees this service has re-opened a world of opportunity. Users are required to show they can drive safely, and advised to carry a mobile phone so they can contact the rangers in case of difficulty. They are given a map showing which paths are suitable. This has not stopped a few adventurers from trying out other paths, so managers are advised to retain a service contract for repairs! Contact:
www.cityoflondon/openspaces
www.discnwl.org.uk/access.htm

Stag beetle rescue, Southfields Park, Ealing

When a new path surface was due to be laid through the woodland at Southfields Park, South Acton, work was held up unexpectedly by the discovery of stag beetle larvae buried in the wood chip surface of the old path. Stag beetles are a priority species in the UK Biodiversity Action Plan. The cost of moving them appeared at first to be prohibitive, but Ealing Surecare – a group for people with Learning Difficulties – came to the rescue. With the help of the Borough's Ranger Service, they carefully dug out a total of 753 larvae, re-homing them in wood chip piles around the wood. The new hoggin path has improved access for everyone. Practical conservation work is not only useful, but also fun, and it is good to see groups like this having an opportunity to participate. Contact:
 Acton Rangers, www.ealing.gov.uk.

Julia Schofield uses a guide dog to get around; previously a software consultant, she now focuses on accessibility. She tells us:

'I'm often out and about in London with my dog Nugget. We enjoy walking along the Thames path. Large open spaces like Richmond Park are more difficult to navigate, as it's so easy to get lost.

'Many people with very poor sight get to the gate of a park and on to the first path, but then turn back, as there is no way to know what's on offer. A short, downloadable text description of a simple walk, which could then be translated into Braille or sound, could be a great independence boost. Just getting to a coffee shop on your own and back can give you a buzz. The guide should include tips on tactile and sound orientation –

e.g. "keep the traffic noise on your left", "listen for the fountain" or "there's a slight edge where this path joins" – and how to find basic things like the café or toilets. A friendly person to meet you the first time would be even better.

'The severity of the problem was bought home to me, when I tested out one of the walks that Ruth Hayhurst and I had put together for visually impaired people at Regent's Park. Sitting in the café afterwards with three of our guests, I was horrified to be told by a young man that he hadn't been to the park or anywhere like that for five years. I asked whether his helpers wouldn't take him? He replied that they felt it wasn't as important as hospital visits or shopping. This set me off to tell people how so many of these difficulties can be overcome with a little understanding.'



Reaching out

The Mayor's Biodiversity Strategy has as one of its objectives: to ensure that all Londoners have ready access to wildlife and natural green spaces. So how do park managers ensure that particular groups do not feel excluded?

Who does and doesn't use parks?

It is hard to get a general picture of park users because the data is often contradictory. Research for 'The Use of Public Parks in England', for example, identified under-represented groups as disabled and Deaf people, the retired, black, Asian and minority ethnic communities, 45-64 year olds, women, and social groups DE. A different picture emerges, however, from GreenStat, the largest national dataset on park users. Findings from face-to-face interviews show that users have a similar ethnic profile to the country as a whole, more than half are over 40 and women are more likely to use parks than men.

Local surveys also give varying results. The London Biodiversity Partnership's 'Capital Woodlands Project' identified a similar range of excluded groups to 'The Use of Public Parks in England'. But the 2007 survey of park users in the Borough of Haringey found that about 39 per cent of their users were from black, Asian and minority ethnic communities, over 60 per cent were women and eight per cent described themselves as disabled.

These contradictions are not entirely surprising because different parks attract or discourage people in different ways. The key is to discover why do some communities not use parks, what are their needs and aspirations, and how can parks be made more relevant to them.

Barriers

People say they don't use parks for a wide range of reasons, such as: not interested; too busy; ill or disabled; or feel unsafe. Other deterrents include: poor condition of facilities; other park users; dog mess; vandalism, litter and graffiti. The Wildlife for All project, a Heritage Lottery Funded project, which worked with communities near London's Royal Parks, found that some groups were uncertain about what their local green space had to offer and whether they would be welcome.

Different people, different meaning

Parks mean very different things to different people, according to a study in Brighton and Hove by Gerda Speller of the University of Surrey. She discovered that certain minority ethnic communities saw parks as a living room for socialising and as a dining room. One person said "We love being with our families and no house is big enough to fit all of us around a table". For long-term unemployed people, parks meant freedom and a place to think. Some of this group especially valued the wilder open spaces in the city. For 16-18 year olds, they were somewhere to be private, away from their elders, while disabled users saw them as somewhere they could be with people.



Making connections

Reaching under-represented groups requires innovative techniques, given that traditional interpretation and activities may not work. These ideas are the lessons learned by a range of outreach projects.

- Use existing networks, schools and local authorities to make contact with groups.
- Use face-to-face meetings, rather than letters or phone calls, to establish a relationship.
- Organise simple activities, such as a picnic, to introduce a new group to a park.
- Be prepared to spend time showing the group the facilities, such as toilets and benches.
- Concentrate on communicating messages, such as "The park is an enjoyable and pleasant place to visit", rather than facts.
- Be patient. Under-represented groups may not be able to work to the timetable you are used to.
- Some small groups may not be used to working in partnership and may not understand your need for feedback and monitoring.





Wild in the Park

This three-year project aims to encourage people from under-represented groups to care about wildlife in London's parks and open spaces. It is a partnership of the RSPB, the Royal Parks and four London boroughs, with funding from the Heritage Lottery Fund. The project builds on Wildlife for All, a similar project which successfully brought new audiences into the Royal Parks.

The project team has found ways to interest hard-to-reach groups in biodiversity. For example, it took an Iraqi group to Ravenscourt Park in Hammersmith and Fulham to demonstrate how to plant a wildlife garden. It also arranged for a group of black, Asian and minority ethnic teenagers to make wildlife sound recordings in Regent's Park. "They really engaged with the technology", said the project manager, Martyn Foster. "They liked the responsibility of using expensive equipment. And it allowed them to tell people in their own way

about their experience of the park." Wild in the Park has trained people from its target audiences in horticulture so that the benefits of the project can live on when it ends in January 2009. Contact: wildintheparks@royalparks.gsi.gov.uk or phone 020 7935 7430

The Crane Valley Project

The London Wildlife Trust led research for this community and biodiversity project into how people used parks and open spaces along the Crane Valley. The sites ranged from traditional parks to wilder meadows and woodland in local nature reserves. The project employed a wide range of techniques, including face-to-face interviews, community questionnaires, focus groups, surveys in primary schools and site visits with local residents. The aim was to identify under-represented groups and barriers to using green spaces.

Interviews with visitors, for example, suggested that Indian and Black

Caribbean users were under-represented in some of the wilder, more wooded green spaces, compared with the ethnic profile of neighbouring wards and boroughs. At most of the sites surveyed, young adults and the over 75s were under-represented compared with the local area, whereas 5-15s and 45-64s were often over-represented. Surveys in primary schools suggested that children were very critical of litter, vandalism and neglect. Muddy paths, anti-social behaviour and lack of amenities such as benches might stop them visiting a green space. The children enjoyed seeing birds, animals and some plants but they often disliked long grass or dead trees. A focus group with residents suggested they would like improvements to basic way-marking and more information about why the site was special. Contact www.wildlondon.org.uk

Photos: Top and above left - Wildlife for All. Top far left - Regent's Park. Bottom far left and above right - children's impressions of Crane Valley.

Interpretation

Provoking interest, inspiring care

Good interpretation makes visitors feel connected, inspired and alive with curiosity. But what is interpretation? The Association of Heritage Interpretation defines it as “the art of helping people explore and appreciate our world”. Interpretation does not seek simply to instruct or teach. It is a more persuasive form of communication that aims to change beliefs and attitudes, as well as impart knowledge.

Interpretation can take many forms. It can be story-telling, an audio trail, web page, presentation, guided walk, dramatic performance or art installation, as well as the more common panel or leaflet. If it is good, it will help visitors to understand a park better, enjoy themselves and come back with their friends.

From interpretation to protection

‘Through interpretation, understanding through understanding, appreciation through appreciation, protection’

This phrase was first used by a ranger with the US National Parks Service more than 50 years ago, but still underlies modern interpretation philosophy today. Sam Ham, a leading interpreter at the University of Idaho, suggests that interpretation which provokes visitors to think deeply in positive ways about a thing will make that thing matter: “When things matter to us, we act on their behalf.”

So how can this approach help us in the management of London parks? Good interpretation has the power to encourage positive attitudes and discourage antisocial behaviour. It can also help us reach out to new audiences. The key is to find the right message and medium. A well-designed interpretive panel can go so far in raising people’s interest through providing information. However, in some parts of London, almost any panel, however well-designed, is likely to be vandalised. Live, personal interpretation led by someone who is passionate about their local area is almost always a better approach, because people are inspired by people.

Interpretation, access and inclusion

The best interpretation stimulates all our senses. It uses touch, smell, hearing, imagination and emotion, as well as sight. It is a powerful tool to make parks more accessible, as a project to interpret Regent’s Park for visually-impaired visitors discovered. Staff who experimented with using textures, smells, sounds and description on guided walks soon realised this technique would also enhance their walks for sighted visitors and make their work more inclusive.

The best interpretation relates its subject to the lives of the people it wants to talk to. It forces us, as the interpreter, to understand our audience, and this in turn can help to make a park more relevant and accessible to under-represented groups.

The TORE model

Sam Ham developed the TORE model as a toolkit for good interpretation. TORE stands for Themed, Organised, Relevant and Enjoyable. It helps interpreters to attract attention, hold attention and get across a message – the key to any successful communication.

Themes are messages, the nub of an argument or the reason for a piece of interpretation. Compelling themes give people a deeper understanding of a place, an event or an idea. They plant beliefs that will change the way people think, feel and behave.

Organised interpretation has a beginning, middle and end. It has a logical flow of ideas so that visitors can easily follow the point you want to make.

Relevant interpretation puts the audience first. People remember and pay attention to what they know and what they care about. Relevant interpretation bridges the gap between what people know and what they don’t.

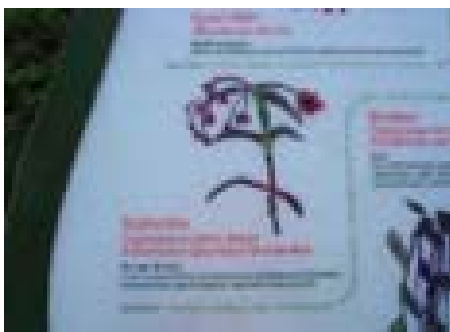
Enjoyable interpretation captures and holds attention. It appeals to emotions, uses humour and is interactive.

Mile End Park, Tower Hamlets

Terry Lyle demonstrates some of the interesting wild flowers that can be found at Mile End Park in east London. An inspiring and well-informed leader can bring the landscape and its wildlife alive to visitors, drawing out all sorts of plants and other creatures, which a majority of people would otherwise fail to spot. *See photo, right.*

Detail from interpretation panel, Battersea Park, Wandsworth

This panel, which aims to interpret plants in the sub-tropical garden, was created by pupils from four primary schools in Wandsworth. They investigated where the plants originally came from and how they have been used through history. The project was a partnership between Battersea Park and Learning through Landscapes and funded by the Heritage Lottery Fund.



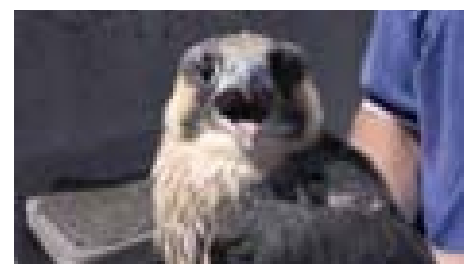
Railway Fields Local Nature Reserve - entrance gate, Haringey

Railway Fields is an enchanting site, tucked away beside a railway off the busy Green Lanes in South Tottenham. It is rather hidden from public view, with its entrance sandwiched between the railway and a row of shops. The attractive gates help to create a sense of arriving somewhere special.



Regent's Park - Peregrines

The return of the peregrine as a breeding bird in Central London in 2004, nesting on a tall building near Regent's Park, was greeted with great excitement by the bird watching community. But how could this be communicated to the wider public without risk of egg-stealing? The RSPB, working with the Royal Parks, hit upon an ingenious solution. Once the two young were nearly ready to fly, news of the nest was released to the media, and telescopes were laid on to view the birds from the park below. More than 1,500 people came to see the birds.



Above: this photo of one of the youngsters was taken when it had to be rescued, after getting into difficulties while making its first faltering attempts to fly, high above the traffic of Marylebone Road. Disturbance of protected species at the nest without a special license is illegal. The two youngsters fledged successfully a few days later.

Natural Play by Tim Gill

Where was your favourite place to play as a child? The chances are it was a place where you could get close to nature: a copse, an overgrown patch of derelict land, the far corner of a field or a riverbank. Almost all children – even today's multi-media techno-kids – find natural outdoor spaces inherently engaging. Perhaps these places evoke instinctive responses deep within our psyche, or perhaps they are simply more stimulating and fun. After all, children are curious, adventurous and creative creatures whose appetite for play leads them to seek out variety, mystery, complexity and possibility.

In spite of this, many playgrounds look like nothing so much as the inside of a fast food restaurant: all primary colours, artificial materials and right angles. Health and safety and durability of equipment are rightly major concerns, and some Local Authorities work in difficult conditions where they fear anything other than strong metal structures is likely to get vandalised. But is a standard array of fixed equipment the only option? Isn't there also scope for more imaginative play areas with better opportunities for creative play?

Some of the best new projects now include logs, boulders, changes of level, sand, water and planting. Leaves, seeds, flowers and berries are not just decorative; they are also 'loose materials' that fire children's imaginations. Thoughtfully designed to appeal to all the senses, such spaces engage children of all abilities, exercising their spirits and minds as well as their muscles.

This fresh take on outdoor play is opening up exciting possibilities for those concerned about reconnecting children with nature, whether in play areas, parks or other green spaces. The case for making nature reserves more playful is just as strong as the case for making play areas more natural. Natural play provides wonderful opportunities for children to immerse themselves in their environment, and in doing so acts as the springboard for a lifelong engagement with the natural world.

Some practical issues

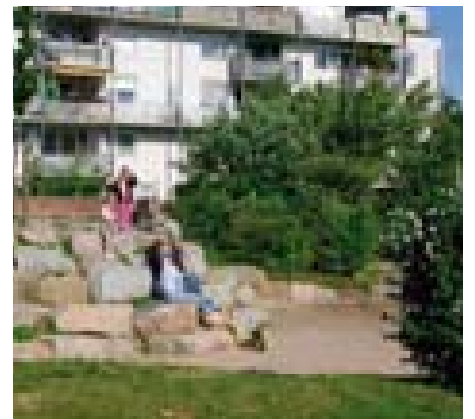
Creating engaging, playful natural spaces is not simply a matter of following a recipe. Expertise in how children use space for their play is essential, as is their direct input into design. Inevitably questions about risk and safety arise, whether to do with fall heights, safety surfacing or play feature design.

Maintenance concerns are another barrier to a more natural approach; but while natural play spaces need more careful management, costs need not be significantly greater. What is more, the capital costs can be much lower: for instance, rubber wet-pour surfacing consumes up to 40 per cent of the capital costs of a conventional play area. Creative design can dramatically reduce these costs, freeing up funds that can be diverted to maintenance. A number of useful resources, which illustrate positive approaches and models of good practice, are listed in the Appendix.

Freiburg

The southern German city of Freiburg has for over ten years been rolling out natural playgrounds, ripping out fixed equipped areas as they wear out and in their place creating green oases full of felled trees, stones and boulders, earthworks and natural textures. Eighty per cent of these new naturalistic playgrounds include sand and water, typically in the form of a hand pump at the top of a landscaped sandy area.

Add in a regular supply of sand and the place is transformed into a mini-beach, opening up wonderful opportunities for children to get their hands dirty in all sorts of creative construction projects, often working collaboratively.



Sansehaven, Copenhagen – Helle Nebelong

Danish landscape architect Helle Nebelong is another leading light. In her Sansehaven or 'garden of the senses' in Faelledparken (Copenhagen's most popular park) play meets nature, and the result is nothing less than a work of art. She also designed an extensive, adventurous nature park in Valbyparken, the city's largest green space. It is no wonder that she is regularly invited to give talks in the UK.

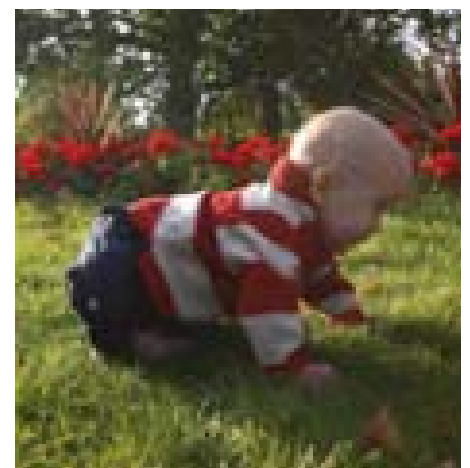


Stirling

Stirling Council in Scotland has strongly embraced a natural approach to play in public space. Play officer Sue Gutteridge went to Denmark, Sweden and Germany for herself and has now overseen the creation of over a dozen new public play spaces. Each is unique, but they share some characteristics. All make extensive use of planting, landform and natural landscape features, alongside pieces of play equipment carefully chosen to widen the offer to children. Most have sand pits, and some also have a water supply. Fencing is avoided, as it is considered unnecessarily restrictive to children's play in this locality. Whether or not to fence can be a tricky question, balancing the benefits of more fluid play against the local situation regarding dogs and hygiene.

London

The London Borough of Islington has supported a number of play spaces that add some fresh ingredients to the mix. In some, like Wray Crescent, it is as simple as dropping some boulders into a grassy area. Two spaces – Spa Fields and Edward Square – have gone much further, using play equipment, with hard and soft landscaping to create public spaces that are playful and multifunctional. Both involved extensive community consultation. Spa Fields includes a range of unique facilities for young people, alongside a conventional ball games area. Their consultation brought out what Freiburg and Stirling have also found: while older young people value an attractive natural environment, top of their list are somewhere to meet and some things to do.



Photos: centre left – Stirling; centre right – Spa Fields; others - exploring naturally, various London parks.

References, recommended further reading and web links

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The contacts listed under individual case studies will welcome serious enquiries from others who are considering embarking on similar projects.

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Working with Local Authorities – Moira Cash, London Borough of Camden

Parks as green infrastructure – Peter Massini, Natural England

Lakes and ponds – Valerie Selby, London Borough of Wandsworth

Flower gardens for a changing climate – Portia Baker, London Borough of Richmond

Pesticide reduction strategies – Nick Mole, Pesticide Action Network

Access for everyone – Nicola Harper, Natural England

Reaching out and Interpretation – Ruth Hayhurst, Ruth Hayhurst Communications

Natural Play – Tim Gill

Some not for profit organisations who can offer advice or services to assist those involved in improving access to nature in London's parks

BTCV inspires people to achieve a better environment and improved biodiversity. We implement this through mobilising volunteers, community outreach and social inclusion, education and training, and longer term community support. BTCV London runs Biodiversity Action Teams, which are highly experienced in all areas of habitat management. For information contact us at 80 York Way, London N1 9AG Tel: 0207 278 4294.

The Dog Rose Trust provides advice, consultancy and interpretation for inclusive and multi-sensory design, that will be of benefit especially to people who are blind and visually impaired. The Trust can produce audio guides from leaflets and also 3D maps; a special pin number can be put on these to ring for an audio description. For further information including costs contact www.dogrose-trust.org.uk and www.dogrosesound.org

The Environment Agency can advise on river restoration; river management; fisheries management and the promotion of sustainable recreational angling; creation, enhancement and restoration of still waters; invasive species. For sites in London contact david.webb@environment-agency.gov.uk or tom.cousins@environment-agency.gov.uk or visit website at www.environment-agency.gov.uk. National phone number 08708 506 506

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Landlife is a specialist in creative conservation project work, and is able to offer free telephone advice on

specifications and creative conservation project work. Landlife project staff may also be able to visit and offer a more specific on-site evaluation, and project ideas, at I.E.E.M recommended rates. Visits to the National Wildflower Centre and project sites in Liverpool and Knowsley can also be arranged. www.landlife.org.uk

London Parks and Green Spaces Forum was established in 2001 as an independent advocate to raise the profile of parks and make sure that London secures its fair share of resources that are being directed towards green space. It provides a vital link between park users, managers, policy makers and Councillors within and between boroughs. It advises its members in order to promote good practice and to keep them in touch with the latest policy and funding developments.

London Wildlife Trust delivers a broad range of ecology and land management services which currently benefit London's parks and green spaces. These include conservation management plans, footpath and access work (including disabled access), ecological surveys, protected species risk assessment and mitigation, environmental education, interpretation and signage, and landscape design which incorporates ecological improvements and safeguards. www.wildlondon.org.uk

PAN UK has a history of working with local authorities in developing pesticide policies aimed at overall reductions in pesticide use. PAN UK also has experience in a wide range of other related issues including disposal of pesticides and non-chemical pest control measures. For more information on how PAN UK can assist you in developing or reviewing your pesticide policy or on any other pesticide related issue please contact: Nick Mole, Policy Officer, PAN UK, nickmole@pan-uk.org

RSPB offers advice to park managers on enhancing parks for birds and wildlife. Whether it's information leaflets or face-to-face support that you're looking for, their London Office can help. The RSPB is also researching declines of urban species, such as the house sparrow, to develop practical solutions to bring them back. For more information please contact RSPB London, 2nd Floor, 65 Petty France, London SW1H 9EU. Tel: 020 7808 1246 or london@rspb.org.uk

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