

Bristol City Council

Parks & Greenspace Strategy

Discussion Paper Landscape Infrastructure in Balanced & Sustainable Communities: **Wildlife**

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1. European, National, Regional and Local Planning and Legislation Context

The UK's commitment to wildlife conservation has resulted in both national and regional strategies designed to protect and increase our wildlife but also to ensure that it's central to sustainable living.

European, National, Regional and Local Planning Context

The Earth Summit in Rio, 1992

- identified biodiversity (wildlife / the variety of life) as one of the key indicators of success in the quest for sustainable use of natural resources.

In response to this,

the UK Biodiversity Action Plan, 1994 ⁽⁷⁾

- provided the main guidance to maintaining and enhancing biodiversity throughout the country.

Subsequently,

the Avon Biodiversity Action Plan, 2004 ⁽⁸⁾

- guides continuing work on production of the *Bristol Biodiversity Action Plan*, which will focus on protecting and enhancing the wildlife interests of the city and improving people's connection with nature.

'Working with the Grain of Nature - A Biodiversity Strategy for England' 2002 ⁽⁹⁾

- identifies the essential role parks and green spaces make to the quality of life of urban communities in particular. The strategy states the importance of providing accessible natural green space and that biodiversity should be an integral part of our parks, playing fields and other urban green spaces.

'Living Places, Cleaner, Safer, Greener'. 2002 ⁽¹⁰⁾

in providing more recent government policy relating to the integration of wildlife with the social agenda,

- sets out the vision for public space and open green space and woodland. This was followed by *'Sustainable Communities: Building for the Future' 2003* ⁽¹¹⁾, which sets out the government's programme to support the creation of more liveable cities including more attractive built and green environments.

Bristol Accord: Conclusions of Ministerial Informal Meeting on Sustainable Communities in Europe - ODPM, 2005 ⁽¹²⁾.

- simply states that sustainable communities should be 'environmentally sensitive - providing places for people to live that are considerate of the environment'. It also states that they should be 'well designed and built - featuring quality built and natural environment' ⁽¹²⁾.

Draft Regional Spatial Strategy for the South West, 2006 - 2026 ⁽¹³⁾

- asserts that a contributory factor to stabilising and reducing Bristol's ecological footprint ⁽²⁸⁾, will involve 'ensuring that development respects environmental limits' ⁽¹³⁾.

Bristol Local Plan, Adopted Dec 1997 ⁽¹⁶⁾

- provides the current planning policy framework for wildlife related policy within the city. Whilst its 'main concern is with land use and the physical and natural environment', it recognises that 'it is not possible to separate these matters from the social, economic and natural aspects of the area'. As a result, the plan incorporated five themes that underpin the Plan. One of these, 'Quality of Life' identified an objective 'to recognise and act upon local, national and global environmental issues by adopting and implementing a long term environmental strategy to ensure a

cleaner, greener, healthier and safer city both for present and future generations’.

Bristol’s Supplementary Planning Document 5: Sustainable Building Design and Construction

- identifies opportunities for more sustainable approaches to development. A range of options are identified reduce the impact of development on existing wildlife interests in the city and also to encourage design that will encourage new places for wildlife, with sustainable urban drainage systems being one such example (32).

Legislation

The main legislation designed to protection UK wildlife includes:

***Wildlife and Countryside Act (1),
Countryside and Rights of Way (CROW) Act (2),
Natural Environment and Rural Communities Act (3)*** and the
Habitat Regulations (4), which includes:

- the requirement for *Environmental Impact Assessments (5)*.
- *Planning Policy Statement 9 (6)* is the key guidance reference for the protection of wildlife especially through the planning process.

Wildlife related legislation is extensive and guidance is available by accessing *CEDREC* through the *City Council’s Intranet*.

2. The fundamental significance of Wildlife

Biodiversity is a key indicator of sustainable living (14). We depend on biodiversity more than we realise and could not exist without healthy ecosystems (15). Increasingly we are becoming more aware of the less direct, but nevertheless essential benefits that wildlife brings to our lives. This is especially so in urban areas. Numerous studies consistently conclude that we need contact with nature if we are to remain both mentally and physically healthy (15). Equally, society is motivated to conserve biodiversity for its own sake above any particular ‘use value’ (15).

‘Protecting nature can help deliver some of the government’s social priorities ... by providing quality accessible natural green space and a more diverse and attractive living environment, we can start to address the environmental exclusion and deprivation that is evident in some areas of the country’ (15).

Bristol is a city rich in wildlife heritage with a great diversity of sites, species and habitats of interest. The most significant sites in Bristol include the Avon Gorge and Severn Estuary, which are of international importance for rare plants and migratory birds respectively, some of which are found nowhere else in the world. Throughout Bristol, wildlife and wild places, including ‘pocket’ wild areas form an integral part of the fabric of the city bringing pleasure and inspiration to many people and adding to the attractiveness and liveability of the city. The *Bristol Local Plan (1997)* states that our natural environment ‘makes an important contribution to the quality of life in urban areas, and in helping to deliver social, economic and environmental benefits. It is therefore important to ensure that the city’s natural resources are protected and improved’ (16).

Over, 80% of the UK population live in urban areas. In common with other city-dwellers, Bristolians most regularly experience nature when they visit their local park or green space. Natural green space provides people’s essential contact with the natural world and offers the best opportunity for increasing environmental awareness, understanding and respect for wildlife.

Whilst Bristol has a rich network of wildlife sites these are not evenly distributed across the city, as is the case for green space provision in general. To remedy this, opportunities to create new wildlife spaces need to be explored, especially where there is a current deficit of accessible natural green space. Opportunities to create spaces for

wildlife exist in our network of parks and green spaces, but also in creating new green space particularly through the planning process.

Trees and woodlands make a particular contribution to our quality of life especially in urban areas. These benefits are discussed in further detail in *Topic Paper: Landscape Infrastructure in Balanced & Sustainable Communities: Trees and Woodland*.

3. The specific contribution of Wildlife

The contribution made by wildlife and in particular people's contact with nature must be seen as integral to achieving Balanced and Sustainable Communities and can be summarised in five main areas, adapted from (15):

Wildlife for its own sake - habitats and species have an intrinsic right to be conserved and we have a responsibility to pass on this wildlife to future generations. The conservation of wildlife, particularly in urban areas, is as much about the commonplace as the rare (15, 33).

Appreciation - nature for our enjoyment, health and spiritual enrichment, a better living environment, cultural meanings and artistic inspiration.

Knowledge - opportunities for general education, scientific and historic discovery and environmental monitoring.

Products - sustainably harvested products, including: wild fruits, berries and wood.

Ecosystem functions - natural systems provide our basic life-support structures, without which our lives would be impossible or very costly to sustain. The natural vegetation and soils of the city ameliorate extremes of climate. Managed wisely our natural areas can help us adapt / cope with climate change including mitigation of flooding, pollution and heat.

In further detail the following benefits to both wildlife and people include:

Better Living Environments and Health Benefits

Making contact with nature improves our moods and outlook (15). Research has identified that even if people do not visit wild spaces, they may get pleasure from simply looking at one as they walk by. Demonstrably, contact with nature is good for your mind (17) and mental (spiritual) well-being.

Property close to good quality green spaces, especially parks and woods or where there are open rivers, tend to be more desirable reflective of higher house prices for otherwise similar properties.

The corollary is that:

- Where there is lack of green space and natural features, social deprivation rates tend to be greater. (15).

Similarly, in health care, the benefits of a green outlook, in accelerating the recovery of hospital patients is now universally recognised. Research (18) demonstrates measured benefits that include:

- reduced periods of post-operative care, and
- patients' acceptance of less powerful painkillers.

Similar research has demonstrated corresponding benefits in prison service; it has been found that:

- illness and complaints of illness from prisoners occupying cells with a green outlook was less than from those without one (19, 20).

These benefits are discussed in further detail in *Topic Paper: Landscape Infrastructure in Balanced & Sustainable Communities: Health & Wellbeing*.

Getting in Contact with Nature (Enjoyment and Economic Benefits)

Natural areas provide a major destination for day visits. At focus group sessions in different parts of Bristol, in which attitudes to differing types of green space at investigated, participants cited natural green space - space that is good for wildlife - as their favourite type of space (21). The most common reasons for visiting wildlife sites are to walk the dog, get some exercise, or to enjoy the simple pleasure of being close to nature (22). People find tranquillity in areas of natural green space with which they associate the presence of natural sounds: hearing the wind through the trees or the sound of water; being in a 'natural landscape' where they can experience lots of greenery; enjoying the view and seeing wild plants and animals (23).

The attractiveness, to tourists, of environmental (natural) attractions, in different parts of the Country has been the subject of recent study (24). This has indicated visits to these attractions, as a proportion of total visits in a region, to be about 20% in the South West, and 25% in the West Midlands and North West. This means that a significant amount of wealth is brought to the regions through expenditure by tourists who are drawn to their environmental attractiveness.

The high quality of some of Bristol's natural green spaces attracts a significant amount of tourism. The Downs and Ashton Court are strongly promoted as great places to visit in part because of the excellent opportunities for seeing wildlife and experiencing nature.

Enjoyment of Wildlife through the Media

The *BBC's famous Natural History Unit*, based in Bristol, has pioneered the appreciation of nature through its television and radio programmes. Approximate average audience figures for UK-focused television broadcasts are 5-6 million for series such as 'Living Britain', and 2 million for short programmes such as 'Wild Britain' (15). Bristol's Natural History Consortium and the annual Festival of Nature, held in the city attract tens of thousands of people with an interest in wildlife, many of whom want to find out more about places to visit in Bristol.

Cultural Importance and Local Distinctiveness

Particular landscapes, habitats and species can often have huge significance for people because of cultural or personal associations (15). Raising both the ecological value of greenspace, and people's awareness of it, can 'strengthen local distinctiveness and this in turn can help engender a stronger sense of community pride (25)'. As established features within an area, they will also reinforce its special local character, and help 'counter the sameness of so much of the modern built environment (25)'.

People are passionate about their local environment and will go to great lengths to ensure its protection. Recent examples in Bristol, that demonstrate local commitment, include the successful campaign by residents of Eastville to prevent the development of Royate Hill, (subsequently designated as a Local Nature Reserve), and a similar campaign by residents of St Werburghs to protect Narroways consequently designated a Millennium Green.

Artistic inspiration

Nature provides a resource that has consistently stimulated artists, whose novels (e.g. Hardy); plays (e.g. Shakespeare); poetry (e.g. Clare, Wordsworth); painting (e.g. Turner, Constable, Nash) and music (e.g. Elgar, Williams) have drawn from their experience of nature (15). Local landscapes, such as Leigh Woods, were also the subject of the work of many of the Bristol School of artists, including Francis Danby and W.J Muller, c1820s. Recent examples of wildlife art in Bristol include the rhinoceros beetle sculpture outside @ Bristol and the 'big fish' sculpture in Fishponds.

Community Development and Cohesion

An interest in local parks and green spaces are recognised features that bring people together in a positive way. There is a wide variety of wildlife sites in Bristol that are actively supported by local groups. Group activities include carrying out practical work, recording wildlife, developing guides and running educational activities. Examples of active groups include: *Malago Valley Conservation Group*, *Friends of Old Sneed Park* and *Friends of Troopers Hill*.

Local events across the city contribute further to people's enjoyment and understanding of wildlife. These offer people the opportunity to hear owls, forage for mushrooms, and gaze at rare plants. amongst other activities for sheer enjoyment but also for educational purposes. There is a growing participation in events run by groups such as the *Avon Gorge and Downs Wildlife Project (27)*, *Nature in the City Project* and the *Eastville Park Action Group*.

Conservation groups such as *BTCV* annually involve over 95,000 volunteers in activities to promote and improve their environment (26). Such activities, run by both *BTCV* and the *Wildlife Trust*, are ideal opportunities for people to share the "feel good" factor of working together to improve their environment. In Bristol both these organisations have strong volunteer support and regularly carry out practical conservation work in the city's parks and green spaces.

Natural Products

All our food stocks have their origins in wild plants and animals, and today we still rely on harvesting wild stocks of fish to feed the nation. Equally, wild plants are a source of new medicines and food and increasingly habitats rich in biodiversity are being valued and protected because of this largely untapped potential. The city's wild spaces provide a good harvest of 'foods for free' including nuts and berries, and collecting blackberries has become a social and healthy activity, rather than something done for survival.

Many Bristolians will lack any strong bond with the countryside, a consideration likely to increase as urbanisation intensifies and expands.

Ecosystem Functions

Many ecological functions and natural processes are essential for human life. However, were they to become damaged on a large scale, their repair or replacement would be impossible, or at least extremely costly. Examples of where human impacts have resulted in such damage include the draining of marshes, and building of sea defences. The current prognosis (15) is that climate change will result in environmental impacts and resultant costs on the largest possible scale. Measures to begin to address this will need to be applied locally as well as globally.

Examples of ecological functions that can be directly linked to a benefit for society include:

- **Global life support services**

These include regulation of the chemical composition of the atmosphere and oceans, and climate regulation. This category represents the key life-sustaining ecological processes. All natural areas play a role in the maintenance of these life-essential services. Clearly, Bristol on its own, is limited in how it may influence global life support services. However, as the 'environmental footprint' of Bristol is 191 times the size of the city (28), it is argued to have a moral responsibility to reduce its impact as much as possible. It is in this context that the protection and management of wild spaces must be seen as a high priority.

- **Flood & Erosion Control**

Natural areas such as flood plain wetlands can buffer hydrological flows and ameliorate the effect of environmental fluctuations. They offer flood and storm protection and prevent run-off damage. Well-managed soils can act as a sponge, soaking up water rather than allowing it to flow rapidly into rivers resulting in the destructive effects of floods. Inter-tidal habitats such as salt marsh and mud flats provide similar roles on the coast, providing a buffer from the energy of the sea's waves.

In practical terms, the presence of greenspace is a crucial element of *Sustainable Urban Drainage Systems (SUDS)*. Researchers also point to the cost benefits of SUDS schemes over conventional drainage construction. It has been estimated that an 80m depth of saltmarsh, such as that at Avonmouth and in the Avon Gorge, can save roughly £4,600 per metre, when compared with defensive structures in additional floodwall protection (29).

- **Water Provision**

Natural management of catchments is important to water quantity and quality. Natural processes can provide water quality benefits, for example, by preventing sediment run-off into rivers. Water quantity benefits can be provided by preventing valuable water resources being drained too quickly and washed out to sea. One predicted outcome of climate change is increased winter rainfall amount and intensity, and areas of greenspace will be increasingly vital in countering the consequent impact. There are many places elsewhere in the world where water companies pay for woodland management in the uplands as a cost-effective way of guaranteeing purer drinking water (30).

- **Pollution control**

As the impact of economic activity increases, natural resources play an expanding role in pollution control and detoxification. This includes the removal of nutrients and pollutants from water, filtration of dust from the air, and provision of noise and wind attenuation. *PPG 17* (25) acknowledged that green spaces in urban areas, act as 'green lungs' and 'can assist in meeting objectives to improve air quality'. Green infrastructure in all its forms, notably as greenspace and green roofs, will have an important contribution in countering what is termed the *Urban Heat Island (UHI)* effect, where built-up areas are, by their nature, significantly warmer than surrounding areas.

It is likely that ecological filtration will play an increasingly significant role in reversing the effects of the more diffuse pollutants (e.g. the use of oil-eating bacteria to clean up oil spills)(15). In many developed countries, constructed wetlands have proved effective in providing moderate to high levels of pollutant removal throughout the year (31).

4. Conclusions

- Accessible natural green space demonstrably makes a positive contribution to achieving balanced and sustainable communities by providing a range of direct and indirect benefits.
- As population densities in Bristol increase, so too will demands on existing areas of natural green space for recreational use and ecological functions.
- Land use planning should protect existing important wildlife areas and incorporate new accessible natural green space within general provision of green infrastructure where there is a current or future deficit.

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