

## H5 Built Environment & Associated Green Spaces

### HABITAT ACTION PLAN

#### 1. Habitats covered

1.1 The 'Built Environment' covers a very wide range of structures which are of artificial, human origin. Many of these will occur mainly in urban contexts, such as towns, but they also occur in rural villages and in the open countryside. 'Associated Green Spaces' also covers a wide range of habitats which are directly associated with the built environment. These tend to occur mainly in urban areas, but are also found elsewhere associated with human settlement and activity. Key sub-categories include:

***Buildings***, including:

- Old buildings such as farm buildings, churches & chapels, old houses, factories & warehouses, historic institutional & public buildings etc;
- Modern buildings such as modern housing, business & industrial estates, retail & leisure facilities, multi-storey car-parks etc;
- Ancient Monuments such as standing stones, upstanding earthworks, castles, fortresses and barrows etc;
- Infrastructure Elements such as walls & bridges, aqueducts & viaducts;
- Underground Constructions such as cellars, cisterns, mines and tunnels.

***Green Spaces***, including:

- Gardens & Allotments;
- Parks & Amenity Areas such as village greens, urban parks, playing fields & sports grounds etc;
- Religious Grounds such as churchyards & cemeteries;
- Hospital and school grounds etc;
- 'Wasteground' & 'brownfield' sites;
- Street trees.

1.2 There is some overlap with habitats which fall within other Habitat Action Plans, such as those for Boundary & Linear Features (e.g. disused railways, roadside verges, and stone walls), These elements of the built environment are covered by the Boundary and Linear Features plan.

Species-Rich Grasslands, Watercourses (e.g. canals) and Ancient/Veteran Trees & Orchards (e.g. street trees) are covered in respective Habitat Action Plans.

#### 2. Description and Current status

##### 2.1 Old Buildings

2.1.1 This category covers a very wide range of structures, but has special relevance with respect to traditional farmhouses, barns and other agricultural buildings in rural settings, as well as other structures such as

- churches and chapels, old houses, factories, warehouses and institutional buildings, which may occur either in the town or the countryside. Often these will be of large size, and of stone construction with roofs of terracotta or slate tiles on substantial roofing timbers, and containing large attics and basements etc.
- 2.1.2 The main value of old buildings is in providing roosting, and sometimes hibernating, habitats for bats, and nesting habitats for birds. Walls and roofs may also provide opportunities for many other organisms, including lichens, mosses, ferns and other 'mural' (i.e. wall-dwelling) plants, insects such as mining bees and wasps, and a range of synanthropic animals (i.e. living with humans) including mice and rats. Nationally rare, scarce and local mosses, lichens and vascular plants occur on old stone roofs and walls of buildings within the county, an example being ivy broomrape which is parasitic on ivy growing on walls at St Mary's Churchyard, Monmouth, and at Chepstow Museum.
- 2.1.3 Often there is green space such as gardens or landscaped grounds associated with old buildings, which can provide foraging and breeding habitat for many fauna species, including birds, bats and many species of invertebrates. A wide range of tree and scrub-nesting birds will utilise large garden trees and shrubberies etc. However, the vegetation of such sites tends to be a mixture of native and non-native species, and is seldom of high botanical value in itself, although some species of interest such as mistletoe are often present.
- 2.2 Modern Buildings**
- 2.2.1 This category also covers a very wide range of structures, but applies especially to modern (i.e. 20<sup>th</sup> Century onwards) houses, as well as commercial buildings etc. Mostly these will be sited in urban or suburban contexts, but could also occur in open countryside and rural locations. For the period 2006 - 2011, 1200 - 1500 new dwellings will be planned in Monmouthshire.
- 2.2.2 Areas of industrial and commercial estates in Monmouthshire tend to be fairly small and compact, with little integrated greenspace, much of which tends to be of an artificial nature and dominated by non-native species. An exception includes the Severn Bridge and Pill Farm Industrial Estates, which are situated between Caldicot Country Park and the Caldicot Levels SSSI. This site lies either side of the Neddern Brook, and contains several fragmented areas of disused dry grassland supporting species such as black knapweed. Some of these fragments are likely to be targeted for

development in the future. The Monmouthshire UDP lists sites for industrial and business development by 2011. The total area covered will be 90 ha.

- 2.2.3 As with old buildings, the main biodiversity interest of such sites lies in their potential for use by roosting bats and nesting birds. Whilst some bats, like lesser horseshoe bats, for example, tend to prefer older buildings, many of the commoner species such as pipistrelles and brown long-eared bats actually show a preference for undisturbed attics in modern, centrally-heated buildings for breeding and summer roosting. Common nesting birds on buildings include house sparrow, blackbird, starling, house martin and swallow, and may include rarer species such as kestrel. The presence of other species of interest, such as lichens and mural plants etc, tends to be much less than on older buildings, however.

### **2.3 Ancient Monuments**

- 2.3.1 This category overlaps somewhat with Old Buildings, above, but includes additional features such as standing stones, hill forts, barrows and other earthworks. Notable Monmouthshire examples include the castles at Raglan, Monmouth, Caldicot and Chepstow, the walls of which support several rare or scarce vascular plants including pale St John's-wort and lobed maidenhair spleenwort (a rare subspecies of this common fern), and the banks of Sudbrook Iron Age fortress on which grow crested hair-grass and meadow oat-grass. Both of these grasses occur nowhere else in Monmouthshire. Ancient stone structures can also support very rich communities of lower plants. Unfortunately, many of the interesting plants associated with ancient monuments have been lost due to, for example, unsympathetic cleaning of castle walls and improvement of formerly species-rich grassland associated with these sites.

### **2.4 Infrastructure Elements**

- 2.4.1 Walls, particularly dry-stone walls can provide an excellent habitat for wildlife, with some stone walls hundreds of years old. They can support a wide range of lower and higher plants, as well as a diverse assemblage of invertebrates, amphibians, reptiles, birds and mammals. They provide nesting and perching sites for birds and roosting holes for bats and as wildlife corridors.
- 2.4.2 Dry-stone walls have declined throughout the UK including Monmouthshire due to them falling into disrepair and the subsequent cost of restoration. Recently, it was estimated that 40,000 km of dry stone walls have been lost from England and Wales in the last 20 years.

2.4.3 Bridges, aqueducts and viaducts, and their associated abutments, can provide nesting sites and shelter for birds and bats. These may be in cavities which have developed naturally over several years. Large aqueducts and viaducts are often used by birds such as peregrine, kestrel and the ubiquitous feral pigeon as a substitute for their original cliff nesting habitat.

## **2.5 Gardens**

2.5.1 Gardens, including small privately owned and local authority controlled land, as well as large formal gardens, form a significant habitat in Monmouthshire. There are estimated to be 15 million gardens in the UK, covering about 270,000 hectares - a vast area of land and potentially of enormous value to biodiversity. The linear nature of many settlements in the county means that gardens are often close to open countryside, and are therefore rich in wildlife. They also provide important wildlife corridors enabling the free movement of species.

2.5.2 Species which particularly favour gardens include birds such as blackbird, collared dove, swallow, swift and goldfinch. Gardens are often home to a wide variety of invertebrates, as well as amphibians including the rare and protected great crested newt, and mammals such as hedgehogs, foxes and, less frequently, badgers.

2.5.3 There is huge interest in gardening for wildlife in the UK. A recent garden bird survey by the RSPB resulted in 33,000 responses and a recent Government survey found that nearly 80% of people with gardens take some action to garden for wildlife. However, the management of many gardens is often not very sympathetic to wildlife. Few contain 'wild' areas and most consist of single-species, close-mown lawns and a lack of wildlife features such as hedgerows, ponds, trees and deadwood.

2.5.4 There is no legal protection for gardens, although they may gain protection through the presence of trees with Tree Preservation Orders, protected species, Conservation Area or SINC designations.

## **2.6 Allotments**

2.6.1 Allotments derive from the enclosure legislation of the 18th and 19th centuries. They started off as a requirement under the General Enclosure Act 1845, which required provision for the landless poor, and then, through the 19th century, parcels of land in urban areas began to be used as allotments.

- 2.6.2 At the start of the 20<sup>th</sup> century the pressure for urban allotment provision increased as a result of the growth of high density housing, often with small gardens. They played an important role for food production in both World Wars with the greater importance of home grown food. After WWII there was a huge increase in suburban houses with large gardens. A period of decline in demand and numbers of allotments followed caused by increased pressure on development land, increase of convenience foods, the assumption that the new suburban dweller with large gardens no longer needed allotments, and the association of the allotment with the war and rationing.
- 2.6.3 Modern legislation covering allotment provision and protection has developed with various Allotment Acts being introduced between 1908 and 1950. These are still in force and continue to define many aspects of allotment provision, for example, a duty is placed upon local authorities to provide allotments where demand exists, and protection is given to statutory sites owned by local authorities.
- 2.6.4 Allotments contribute to the amount of green space in many urban settings. They also provide a habitat for a variety of species. Butterflies, moths and bees will be attracted to the flowers of cultivated plants and wildflowers, and the cultivated ground provides feeding opportunities for birds. Disused allotments are a particular haven for wildlife while some tended plots can act as seed-banks for rare vegetable species.

## **2.7 Parks & Amenity Areas**

2.7.1 Parks and amenity areas include small areas of semi-natural habitats included in other Habitat Action Plans. The habitats are often highly artificial and intensively managed although they often support good numbers of mature and specimen trees. They may include species-poor, frequently cut, drained and fertilised playing fields; urban parks with a high proportion of non-native species, often in ornamental planting schemes; playing fields & sports grounds; and hard landscaping such as tennis courts. As a consequence, many of these habitats are often of limited value for biodiversity. However, parks in particular may represent the only large area of accessible greenspace for many city and town residents.

2.7.2 The County Council owns and / or manages 165 ha of parks and open spaces. These include:

- Belgrave Park, Bailey Park, Swan Meadows and Linda Vista Gardens in Abergavenny;
- Spine Footpath and Wentwood View in Caldicot;
- Bulwark Park, Castle Dell, Riverside and the Danes in Chepstow;

- Mill Common and Mill Reen in Magor/Undy;
- Chippenham Mead, Clay Patch, Millennium Field and Vauxhall Fields in Monmouth;
- Rogiet Playing Fields in Rogiet;
- The Old Cattle Market Field in Usk.

2.7.3 There are no particularly key national or local Biodiversity Action Plan species strongly associated with these habitats. However they can hold populations of priority species such as song thrush, bullfinch, bats, hedgehog, badger, slow worm and overwintering amphibians, sometimes including great crested newt.

## 2.8 Religious Grounds

2.8.1 There are churchyards and cemeteries in virtually every settlement in Monmouthshire. The smallest village will have a churchyard whilst the larger towns will host a number of cemeteries and churchyards.

2.8.2 Many churchyards were originally grasslands enclosed either when the church was built or as a later extension. They range from manicured lawns and tended flowerbeds to neglected wildernesses. Unlike surrounding farmland these sites have not generally been sprayed with chemical fertilisers and pesticides (although spot weeding with weed killer around bases of headstones and monuments is common), nor have they been drained. In addition, they are relatively undisturbed by people.

2.8.3 Churchyards are often refuges for meadow plants such as cowslips. Typically, older churchyards contain more native species, often with mature yew and beech, mixed with lime and exotic conifers which were planted in Victorian times. Churchyards and cemeteries are often similar in terms of wildlife and both may attract wildlife because of their lower disturbance and greater habitat diversity compared to surrounding areas. The gravestones themselves support a huge variety of lichens. Older stones laid on their side may provide basking sites for reptiles such as the common lizard. Many cemeteries support an important range of wildlife and, in some cases act as valuable refuges for rare and uncommon species.

2.8.4 Several rare and scarce mosses have been recorded on church roofs within the county including great grimmia (*Grimmia decipiens*), hoary grimmia (*Grimmia laevigata*), fringed hoar-moss (*Hedwigia ciliata* var *ciliata*) and the Red Data Book flat-rock grimmia (*Grimmia ovalis*). These are mainly found on sandstone roof tiles.

## 2.9 Hospital and School Grounds

- 2.9.1 The NHS has one of the largest property portfolios in Europe. The majority of these are operational properties owned and managed by individual NHS trusts. Since the establishment of NHS trusts in 1991 and the 'Care in the Community' initiative, many hospital services have merged, closed or relocated. This has led to the sale of many of the older hospital sites, including psychiatric hospitals, with their historic buildings and landscapes. Many of these have now been converted to residential uses.
- 2.9.2 In Monmouthshire recent hospital closures include Monmouth Hospital in Hereford Road, Monmouth, and Pen-Y-Fal Hospital, in Old Monmouthshire Road, Abergavenny. In both cases the future use of the sites is for residential housing. The pattern of future disposals will be significantly different from the recent past, as the period of major revenue release for reinvestment in health care has now ended.
- 2.9.3 The grounds of many hospitals, nursing homes, day centres and retirement centres etc often contain extensive areas of vegetation, including mown grassland and ornamental bedding or shrubbery, but also varying amounts of semi-natural, often species-rich habitats.
- 2.9.4 School grounds make up 5% of all the built areas in the UK and more emphasis is now being placed upon the management of these in an environmentally responsible way. The development of school grounds as biodiverse resources and the inclusion of education for sustainable development within the national curriculum are becoming an increasingly important part of the delivery of subjects such as science and geography.
- 2.9.5 Although many school grounds are largely made up of hard landscaping, they sometimes also comprise relatively large areas that provide refuge for a variety of wildlife. The hours within which school grounds are used, and the fact that some areas remain undisturbed for long periods, also means that wildlife is able to flourish in relative safety. In addition to this many schools have already taken the initiative to develop 'wild areas' or 'nature gardens' resulting in a variety of habitats being created. There is, however, also pressure on schools, and Local Education Authorities, to raise revenue through the sale and redevelopment of school grounds.

## **2.10 'Wasteground', 'Brownfield' and Industrial Sites**

2.10.1 'Wasteground' & 'Brownfield' sites include a wide variety of derelict habitats found mainly in urban areas. The land is or was usually occupied by a permanent (non-agricultural) structure and associated fixed surface infrastructure, but is no longer in use. Many derelict sites are scheduled for future development and therefore provide only a temporary environment for wildlife.

2.10.2 Derelict sites tend to be naturally colonised areas and support pioneer plant and animal communities. Many of the plants will be garden escapes or will arrive in dumped soil etc. Insect life can be abundant and species-rich, including bumble bees, solitary wasps and mining bees. Derelict sites can provide a refuge for some key species struggling in rural areas such as song thrush and great crested newt, although they are also very variable and may be polluted and species-poor. Scarce vascular plants present in this habitat in Monmouthshire include rough hawk's-beard, vipers-bugloss, Smith's pepperwort, dwarf mallow, hairy buttercup, bastard cabbage, wild mignonette and twiggly mullein. These sites also provide important foraging areas for bats roosting in urban properties as well as forming commuting routes to the wider countryside. Notable examples of industrial landscapes which support good bat populations include Redbrook, Whitebrook, Angiddy Valley, Glas Coed / Little Mill, and the Clydach Valley.

2.10.3 Wasteground sites comprise land which is in no particular land use, and which has not been for some considerable time. They are often relatively undisturbed by human activity, bringing benefits for a wide range of birds and flowering plants. The soil on many abandoned industrial sites is often poor and may contain poisons such as heavy metals, but the comparative lack of nutrients may encourage a wide range of plants, whilst areas of open ground may be important for lichens, butterflies, moths, beetles and bees etc.

2.10.4 Current Government policy promotes the use of previously-developed (brownfield) land for new development.

## **2.11 Underground Constructions**

2.11.1 Many bats rely on underground sites such as caves, abandoned mines, tunnels, cellars and ice-houses for hibernation, although with climatic warming it is increasingly likely that such sites will be used year round. Regard for such sites often concentrates on safety or archaeological and historical significance. Unfortunately, such places are sometimes blocked up for safety reasons or by rubbish dumping, so bats either lose their

hibernation sites or, worse still, may be sealed-up inside. One example of lack of thought/consultation was Usk railway tunnel which had the end closing walls removed making the site unsuitable for lesser horseshoe bats. An iron stone mine in the Glas Coed group is nearly closed by garden debris.

## **2.12 Street Trees**

2.12.1 The towns and villages within Monmouthshire are often lined with street trees. Many of the street trees are under threat from piecemeal damage from a variety of causes such as development, underground cabling works and general neglect. Particularly important trees have been designated with Tree Protection Orders (TPO's).

## **3. Current factors affecting the habitat (In rank order of importance)**

### **3.1 Old Buildings**

- 3.1.1 Conversion of agricultural buildings to residential or commercial properties.
- 3.1.2 Renovation of old buildings, which leads to new roofs, the loss of loft spaces and the demolition of walls.

### **3.2 Modern Buildings**

- 3.2.1 Inappropriate landscaping of new developments including profiling and planting.
- 3.2.2 High numbers of predators and disturbance factors such as cats, dogs and humans.
- 3.2.3 Modern building designs that do not provide opportunities for wildlife.
- 3.2.4 Inappropriate treatment of timbers.

### **3.3 Ancient Monuments**

- 3.3.1 Development encroachment.
- 3.3.2 Clearance of vegetation from walls of ancient monuments.
- 3.3.3 Improvement of formerly species-rich grasslands associated with ancient monuments.

### **3.4 Infrastructure Elements**

- 3.4.1 Removal of dry stone walls for development, road construction and theft (ie for garden rockeries).
- 3.4.2 Neglect of dry stone walls in need of restoration.
- 3.4.3 Unsympathetic renovation or maintenance of bridges, aqueducts & viaducts may threaten associated wildlife.

### **3.5 Gardens**

- 3.5.1 Development pressure on gardens for new housing provision.

- 3.5.2 Little/ no statutory protection.
- 3.5.3 Use of pesticides and inorganic fertilisers affecting wildflowers and reducing invertebrate populations.
- 3.5.4 Lack of knowledge and awareness about 'wildlife gardening'.
- 3.5.5 The increasing use of tarmac, patios and decking decreases the natural resource available for wildlife to use.
- 3.5.6 The drainage of garden pools, ponds and boggy areas reduce habitats suitable for amphibians and aquatic species.

### **3.6 Allotments**

- 3.6.1 Demand for development land leading to loss of allotments.
- 3.6.2 Use of pesticides and inorganic fertilisers affecting wildflowers and reducing invertebrate populations.
- 3.6.3 Inappropriate management for wildlife value.

### **3.7 Parks & Amenity Areas**

- 3.7.1 Management of open spaces for amenity purposes only largely due to the perception that biodiverse habitats are 'untidy'.
- 3.7.2 Use of pesticides and fertilisers in gardens and other green spaces and the use of chemicals in timber treatments.
- 3.7.3 Precautionary management of trees for Health and Safety Reasons.

### **3.8 Religious Grounds**

- 3.8.1 Conflicts between management for public access, biodiversity and the very "neat and tidy" approach.
- 3.8.2 Conflicts between management for biodiversity and a lack of management in derelict burial grounds.
- 3.8.3 Repairs and renovation of church roof and walls can result in damage to lichen and bryophyte communities and exclusion / destruction of bat roosts.
- 3.8.4 Poor public perception of the biodiversity value of burial grounds leading to inappropriate management regimes.
- 3.8.5 Over zealous management of 'dangerous trees'.

### **3.9 School and Hospital Grounds**

- 3.9.1 Management practices are often undertaken with wildlife conservation as a low priority.
- 3.9.2 Lack of consistent management of wildlife areas in school grounds.
- 3.9.3 Many schools consider wildlife areas to be unsafe environments e.g. ponds. As a result such areas are either never created or, as health and safety restrictions increase, are developed for other use.
- 3.9.4 Loss of school grounds as schools expand to accommodate larger numbers of children.

3.9.5 Loss of old school buildings which often support major bat roosts.

3.9.6 Demand for development land.

### **3.10 'Wasteground', 'Brownfield' and Industrial Sites**

3.10.2 Disused land is often subject to development pressure, both for housing and employment.

3.10.3 The quality and maximum potential of the habitat is overlooked, ignored, and insufficient or is inappropriately identified.

3.10.4 Industrial pollutants may be present and have a detrimental effect upon the habitat and the wildlife and its users.

### **3.11 Underground Constructions**

3.11.1 Loss or disturbance of mating and winter hibernation sites for bats in caves, disused mine shafts, tunnels and cellars through recreational activity.

3.11.2 Maintenance and inspection of structures and lack of consultation by owners in respect of proposed changes and their potential impact to bats.

### **3.13 Street Trees**

3.13.1 Threat of development.

3.13.2 Loss of trees through hard landscaping.

3.13.3 Removal of trees that are mistakenly thought to be a threat to buildings.

3.13.4 Pollution from industry and traffic, causing damage to epiphyte communities and changes to soil.

3.13.5 Damage to trees and roots from underground cabling works, soil compaction and vandalism.

3.13.6 Loss of trees to disease (eg Dutch elm disease, oak dieback), physiological stress such as drought, water-logging and storm damage.

## **4. Current action in the built environment**

4.1 Monmouthshire County Council has produced Supplementary Planning Guidance that recognises the importance of brownfield sites, buildings and artificial structures as potential wildlife habitats.

4.2 Listed buildings receive some protection from the Planning (Listed Buildings and Conservation Areas) Act 1990.

4.3 Some species are protected by inclusion in the various schedules of the Wildlife and Countryside Act 1981 and the Conservation Regulations 1994 e.g. all bat species.

- 4.4 Volume 10 of the Design Manual for Roads and Bridges provides detailed advice to engineers on the potential impacts of bridge maintenance works on bats.
- 4.5 RSPB Garden Bird Watch has a significant following throughout the South Wales area, and is valuable for monitoring birds and raising awareness.
- 4.6 There are numerous publications providing information about urban wildlife habitats, particularly wildlife gardens and ponds.
- 4.7 Monmouthshire County Council UDP has a policy for the protection of leisure facilities including parks, amenity areas and allotments.
- 4.8 The Green Flag Award scheme is the national standard for parks and green spaces throughout England and Wales and it recognises and regards the best green spaces in the country. Recognition within the award includes environmental protection and enhancement and high quality landscapes.
- 4.9 Information for the management of churchyards and cemeteries is available from the living churchyard project.
- 4.11 The 'Friends of Monmouth Cemetery' have produced management prescriptions which aim to sustain and improve the Biodiversity of the site including managing areas as meadows. The group will also promote the Biodiversity of the site with interpretation and encourage Biodiversity surveys and activity days.
- 4.12 The British Lichen Society produces a 'Churchyard Lichens' fact sheet, which gives information on lichens, the importance of churchyards and how people can help.
- 4.13 School grounds are protected areas of open space and cannot be put to alternative uses without special permission from the Secretary of State for Education and Employment.
- 4.14 Learning Through Landscapes, the National School Grounds charity provide advice to encourage schools to use their grounds for educational purposes, including the development of wildlife areas.
- 4.15 As part of its commitment to Local Agenda 21 Monmouthshire council encourages people to enhance their local environment which includes benefits for biodiversity.

- 4.16 In Wales, derelict and disused urban areas may be eligible for grants administered by the Welsh Assembly Government. These provide funds for development projects designed to restore derelict land, but some consideration is given to the additional environmental benefits achievable.
- 4.18 Individual trees and groups may be afforded protection under planning legislation including Tree Preservation Orders (TPO's) and Conservation area regulations.
- 4.19 Monmouthshire County Council has successfully secured a bid for funding from the Welsh Assembly's for sustainable improvements to the environment of Pill Farm, Old Pill Farm and Severnbridge Industrial Estates, Caldicot. This development proposal takes into account the ecological and landscape value of the site.

## 5. Proposed targets

- 5.1 Maintain the extent of wildlife rich areas in the built environment and associated green spaces.
- 5.2 Achieve favourable condition through appropriate management of wildlife rich areas in the built environment and associated green spaces.
- 5.3 Restore damaged or neglected areas of the built environment and associated green spaces that are or could be valuable for wildlife.
- 5.4 Expand areas that are valuable for wildlife in the built environment and associated green spaces.

## 6. Proposed Actions for the Built Environment & Associated Green Spaces

Action	Key Partners		Timescale
	Lead	Partners	
<b>1. Policy and legislation</b>			
1.1 Ensure policies and strategies do not adversely affect wildlife associated with the built environment.	CCW, WAG, MCC	MDP, MDC	Ongoing
1.2 Ensure wildlife associated with the built environment and the potential for built features to be used as habitat are fully considered when assessing development.	MCC	CCW	Ongoing
1.3 When there is no alternative ensure that appropriate mitigation or compensation measures for affected wildlife are used during development.	MCC	CCW, MCS, MDC	Ongoing

1.4 Ensure opportunities for enhancing the built environment for wildlife are used during the planning process.	MCC	MCS, MDC	Ongoing
1.5 Make links to Supplementary Planning Guidance for Conversion of Agricultural Buildings.	MCS	GWT	When available
1.6 Incorporate good design practises into supplementary planning guidance.	MCC	MCS, MDC	Ongoing
1.7 Develop and publish design guidance to provide alternatives where habitats will be lost for example by installing bat bricks	MCC	BCT, MBG, VBG	Ongoing
1.8 Assess the impact renovation will have to wildlife before any building work is undertaken. Adopt biodiversity related building control regulations	MCC	CCW	Ongoing
1.9 Encourage the integration of green networks (incorporating a full range of wildlife habitats) in planning and developments within the urban environment.	MCC	CCW	Ongoing
1.10 Protection, mitigation and management policies are required in development plans to counter development pressures in urban areas and sustain a viable natural resource.	MCC	CCW	Ongoing
<b>2. Funding and Incentives</b>			
2.1 Promote the biodiversity grant scheme to schools and local community groups.	MCC	MCS	Ongoing
<b>3. Site Protection and Designation</b>			
3.1 Seek to designate the best urban habitats as SINCs and LNRs.	MCC, CCW, GWT	MCS	Ongoing
<b>4. Habitat and Site Management</b>			
4.1 Audit Biodiversity potential and management on council owned land.	MCC	MCS	Ongoing
4.2 Develop management plans for all local authority owned urban sites including parks and amenity areas.	MCC	MCS	Ongoing
4.3 Incorporate the conservation and enhancement of wildlife into the	MCC	MCS	Ongoing

management of urban green space.			
4.4 Encourage community action to survey, plan for and manage wildlife habitats.	MCC	BTCV, MCS, GWT	Ongoing
4.5 Target owners of all urban SINCs for advice on land management for biodiversity.	MCC	MCS, GWT	Ongoing
4.6 Promote and provide support and advice on wildlife friendly management to managers of burial grounds and churchyards.	MCC	MCS, GWT	Ongoing
<b>5. Habitat Creation / Restoration</b>			
5.1 Encourage schools to create wildlife gardens within their grounds	MCC	LEA, GWT, MCS	Ongoing
<b>6. Species management</b>			
6.1 Encourage church owners to avoid the removal of, or disruption to, lichens and mosses as much as possible.	MCC	GWT, MCS, Lichen Society, BBS	Ongoing
6.2 Encourage church owners to assume that bats are using the building when planning renovations and mitigate accordingly.	MCC	GWT, MCS, CCW, MBG, VBG	
<b>7. Survey and monitoring</b>			
7.1 Survey urban areas to identify SINCs, green space and corridors.	MCC	GWT, MCS	Ongoing
7.2 Encourage the general public to record and report to SEWBRc species found in and around their homes.	MCC	GWT, MCS	Ongoing
7.3 Identify the true extent and quality of dry-stone walls.	MCC	MCS	Ongoing
7.4 Initiate a 'wildlife in gardens' survey to involve the wider public in monitoring the health of 'urban' species such as Song Thrush. This could include the RSPB/BTO 'Garden Bird Survey'.	MCC	GWT, MCS	Ongoing
7.5 Undertake public surveys of 'urban' species and habitats involving schools, community groups and the general public.	MCC	GWT, MCS, LTL, GBSP	Ongoing
<b>8. Communication -Advisory</b>			
8.1 Provide information leaflets for the general public to highlight	MCC	GWT, MCS	Ongoing

opportunities for enhancing urban wildlife, in particular the value of wildlife gardening.			
8.2 Encourage the uptake of agri-environmental schemes, such as Tir Gofal, to restore and maintain dry stone walls.	MCC	GWT, MCS	Ongoing
8.3 Write an article for relevant local church newsletters and magazines with the aim of raising awareness amongst the church community of the importance of churchyards for lichen and bryophyte conservation. The article should indicate ways in which churches can help to protect important sites.	MCC	GWT, MCS	Ongoing
8.4 Develop links with institutional and other major landowners to ensure that they are fully aware of the biodiversity value of their land.	MCC	MBG, VBG, CCW	Ongoing
<b>9. Communication - Publicity</b>			
9.1 Seek opportunities for increased promotion and participation in urban wildlife, through interpretation of sites, events, publicity, guided walks etc.	MCC	GWT, MCS	Ongoing
9.2 Encourage local people to comment on planning applications.	GWT	MCC, CCW	Ongoing
9.3 Encourage local community involvement on derelict sites where appropriate.	GWT	MCC, CCW	Ongoing
9.4 Promote features that people can use to enhance their buildings for wildlife.	MCC	GWT, CCW	Ongoing
9.5 Encourage lichenologists and bryologists to pass all significant lower plants records to SEWBRc.	SEWBRc	MCC, MCS, GWT, Lichen Society, BBS	Ongoing

## 7. Link to other plans

- 7.1 Plan should be considered in conjunction with the habitat action plans for ponds, grasslands and woodlands. It is likely that the implementation of this plan will also benefit the objectives of the species action plans prepared for song thrush, pipistrelle bat and great crested newt.

## 8. Abbreviations

BBS	British Bryological Society
BCT	Bat Conservation Trust
BTCV	British Trust for Conservation Volunteers
GBSP	Gwent Bat Survey Project
GOS	Gwent Ornithological Society
GWT	Gwent Wildlife Trust
LEA	Local Education Authorities
LTL	Learning Through Landscapes
MBG	Monmouth Bat Group
MCC	Monmouthshire County Council
MCS	Monmouthshire Countryside Service
MDP	Monmouthshire Development Plans
MDC	Monmouthshire Development Control
RSPB	Royal Society for the Protection of Birds
SEWBRc	South East Wales Biodiversity Records Centre
WAG	Welsh Assembly Government
VBG	Valleys Bat Group
AONB	Wye Valley Area of Outstanding Natural Beauty

## 9. References

Biodiversity: The UK Steering Group Report - Volume II: Action Plans (December 1995, Tranche 1, Volume 2, p323)

Bats and the law [www.bats.org.uk](http://www.bats.org.uk)