

Supplementary Planning Document  
Nature Conservation Consultation Draft  
Appendices

February 2006

## NATURE CONSERVATION SUPPLEMENTARY PLANNING DOCUMENT -

### APPENDIX 1 - DETAILED SPECIES GUIDANCE

#### Species covered by Policy NC6 Wildlife Species and associated Supplementary Planning Guidance

##### Legally protected species

*European Protected Species are marked \**

##### Birds

Barn owl (*Tyto alba*)  
Black redstart (*Phoenicurus ochruros*)  
Hobby (*Falco subbuteo*)  
Kingfisher (*Alcedo atthis*)  
Little ringed plover (*Charadrius dubius*)  
Peregrine falcon (*Falco peregrinus*)

##### Amphibians & Reptiles

Adder (*Vipera berus*)  
Common lizard (*Lacerta vivipara*)  
Grass snake (*Natrix natrix*)  
Great crested newt (*Triturus cristatus*)\*  
Slow worm (*Anguis fragilis*)

##### Mammals

Badger (*Meles meles*)  
Brandt's bat (*Myotis brandtii*)\*  
Brown long-eared bat (*Plecotus auritus*)\*  
Daubenton's bat (*Myotis daubentonii*)\*  
Leisler's bat (*Nyctalus leisleri*)\*  
Natterer's bat (*Myotis nattereri*)\*  
Noctule (*Nyctalus noctula*)\*  
Common pipistrelle (*Pipistrellus pipistrellus*)\*  
Soprano pipistrelle (*P. pygmaeus*)\*  
Serotine (*Eptesicus serotinus*)  
Whiskered bat (*Myotis mystacinus*)\*  
Otter (*Lutra lutra*)\*  
Water vole (*Arvicola terrestris*)

##### Invertebrates

White-clawed crayfish (*Austropotomobius pallipes*)\*

##### Plants

Floating water-plantain (*Luronium natans*)\*

##### Other Birmingham & Black Country Biodiversity Action Plan Species

Amphibians (frog, toad, smooth newt)  
Bluebell (woods)  
Brown hare  
Dingy skipper  
Green hairstreak  
Grey partridge  
Kestrel  
Orchids

Skylark  
Snipe  
Song thrush  
Tree sparrow  
*Vaccinium* species  
Wall brown

**Species that are rare in the Black Country (EcoRecord Standard Species  
Rarity Index)**

*to be added*

## **1.0 European Protected Species Guidance –**

### **1.1 Great Crested Newt (*Triturus cristatus*)**

#### *Legal Framework*

The great crested newt is an internationally important species. It is protected under Schedule 2 of the Conservation (Natural Habitats etc) Regulations 1994 (Regulation 8) and Schedule 5 of the Wildlife and Countryside Act 1981.

It is illegal to deliberately kill, injure, capture or disturb great crested newts or obstruct their access to areas where they live. It is also an offence under the Wildlife and Countryside Act to intentionally or recklessly damage, destroy or obstruct access to any structure or place which this species uses for shelter or protection. The law applies to eggs, tadpoles and juveniles, as well as adults. A licence, issued by English Nature, is necessary for any scientific or survey work that will involve catching or handling great crested newts, or where newts will be prevented from moving freely to and from the places where they live. A licence issued by the RDS is required for any development or permitted development works affecting great crested newts (see above under European Protected Species).

The Birmingham and the Black Country supports a population of great crested newts whose conservation is significant in national terms. The species is known to be present in about 30 localities with well-recorded strongholds in the western part of Dudley. A Local Biodiversity Action Plan exists for this species. Objectives are to sustain existing populations, preventing loss through development, to create suitable new ponds and to secure suitable habitat management.

#### *Lifestyle and Habitat Requirements*

The great crested newt is the largest of Britain's three newt species. It spends much of the year on land, and hibernates from October to February. Towards the end of winter (February to April) adult newts return to their ponds to breed, often the same ponds that they were hatched in. Great crested newts require extensive areas of terrestrial habitat as well as a breeding pond in order to survive. It has been estimated that a population of around two hundred and fifty newts requires a suitable breeding pond and about one hectare of good terrestrial habitat. Rough grassland and scrub provide good foraging habitats, and hibernation sites such as dead wood, log, stone and brick piles are also a requirement. Adult newts can travel some distance away from their breeding pond in search of suitable habitat and immature adults may disperse up to five hundred metres away.

Breeding ponds should be free of fish and have few waterfowl. The pond area should ideally be 100 - 300sq.m, have variable depth and preferably be one of a number within 250m of each other. Ponds supporting a wide range of invertebrates with a quantity of floating and submerged vegetation and areas of open water are ideal for successful breeding. High levels of human or animal disturbance, pollution and shading by surrounding trees and shrubs can cause considerable damage. Great crested newts can, however, be found

in ponds of all kinds, even in small temporary pools. Newts can survive infrequent drying out of the breeding pond. Eggs are laid on underwater leaves near pond margins. After four weeks the eggs hatch as tadpoles, which then take a further three months to develop into a young newt capable of leaving the water. At this time the young newts will leave the water to spend between one and three years in surrounding terrestrial habitat while they become sexually mature.

#### *Information Requirements and Survey Standards*

Expert advice is usually necessary to establish the potential impact of development. Information will be required where there are previous records or current records or great crested newts are suspected of inhabiting a proposal site or its surrounds, normally within 250 metres. The following aspects should be investigated:

- Long term records of species use of the site, if available;
- Population size;
- Breeding status;
- Breeding site(s);
- The nature and size of feeding habitat;
- Routes of movement;
- For terrestrial habitat, the importance of the site to the species;
- An assessment of the impact and proposals for mitigation;
- Opportunities for habitat creation or enhancement.

March through to July is the best period to survey breeding ponds. Survey of terrestrial habitat can take place at other times. A licensed surveyor should undertake fieldwork. Where great crested newts are recorded in an area, all surface water features on a site should be surveyed. Newts have been known to breed even in ditches and puddles. The Herpetofauna Workers' Manual produced by the Joint Nature Conservation Committee in 1998 provides the most comprehensive digest of surveying and management practice. In addition English Nature has published *Great Crested Newt Mitigation Guidelines* (2001). This is available on the English Nature website.

#### *Design Considerations*

Planning proposals should consider the following:

- English Nature and THE RDS requirements;
- Timing of development work;
- Retention and/or provision of breeding ponds;
- Links to other breeding ponds/newt populations in the immediate area;
- Location of roads and footpaths and features such as drains and culverts which can be a problem during migration periods and means of mitigating against impacts of these;
- Retention and/or provision of suitable terrestrial habitat;
- Protection of populations and habitat during development;
- Management of ponds and terrestrial habitat;
- Monitoring of the effect of the development on newt populations.

## 1.2 Otters

### *Legal Framework*

Otters are protected under Schedule 2 of the Conservation (Natural Habitats etc) Regulations 1994 (Regulation 8) and Schedule 5 of the Wildlife and Countryside Act 1981. This legal protection means it is illegal to deliberately kill, injure, capture or disturb otters or obstruct their access to areas where they live. It is also an offence under the Wildlife and Countryside Act to intentionally or recklessly damage, destroy or obstruct access to any structure or place which the species uses for shelter or protection. A licence issued by the RDS is required for any development or permitted development works affecting otters (see above under European Protected Species).

Absent from Birmingham and the Black Country for over a quarter of a century, otters are now again being recorded in the conurbation. They are thought to be re-colonising the area from historic strongholds in the upper Severn catchment by making use of the conurbation's extensive canal network and the rivers Cole, Tame, Stour and Blythe. A Local Biodiversity Action Plan exists for this species????; its objectives include establishing the local status and distribution of otters, and seeking to provide opportunities for otters through habitat creation and enhancement

### *Lifestyle and Habitat Requirements*

Otters are found predominantly along rivers, but will also make use of canals, streams, lakes, ponds and wetlands. Watercourses with a healthy fish population are important; otters feed almost exclusively on fish, particularly eels, but will also take amphibians, birds and small mammals. Good bankside cover is another important habitat feature as otters tend to lie up during the day. Holts tend to be found in secluded spots in the roots of large riverside trees, dense bankside vegetation and reedbeds. An otter may have as many as 30 of these resting sites within its territory. Urban and suburban watercourses are used primarily to pass through built up areas at night. As an otter's territory can extend for up to 40km of watercourse, these sometimes apparently unfavourable corridors do serve a useful function in enabling otters to colonise new areas. Otters are secretive creatures and tend to be nocturnal. Consequently, spraints (droppings) are often the only sign of an otter's presence.

Development proposals can have a number of impacts on otters' use of watercourses and associated wetland habitat. Such impacts include loss of undisturbed breeding and lying up habitat, degradation and fragmentation of habitat, and increased disturbance. Changes in traffic patterns resulting from development may mean that otters are more at risk from being killed while crossing roads.

### *Information Requirements and Survey Standards*

Spraints are used to mark territories and are a key sign of an otter's presence. They are most likely to be found in dry weather when the water level has been steady or is falling. Since they are used as a form of communication, spraints will be left in obvious locations such as under or near bridges, at tributary

junctions and on prominent bankside or mid-stream features including boulders, tree stumps and sand bars. Winter surveys are easier because bankside vegetation will have died back, but heavy rains can wash signs away. In addition to looking for spraints, surveys should record other signs of the presence of otters such as footprints, feeding remains and bank slides, and should provide a general assessment of habitat condition and potential for improvement.

All developments involving watercourses, especially those which affect the integrity of river/canal corridors or impact upon waterside habitat, should provide the following information:

- Otter presence and status, including recent survey information and past records;
- As otters are rarely seen, surveys should be based on the presence of characteristic signs along the watercourse and adjacent habitats which may be used for lying up. Signs should be recorded on a detailed map.
- Records of otters for adjacent stretches of any watercourse or canal affected;
- If present, appraisal of the effect of the development on otters and details of mitigation.

Surveys can be carried out at any time of the year, but best results are achieved in dry periods between November and January. Recognised and competent ecological consultants, with experience of otter work, should undertake survey work and the development of mitigation proposals. An English Nature licence is required for survey work which causes disturbance to otters such as checking of known holts. Where development proposals are likely to impact on otters, English Nature and the Environment Agency should be consulted when full survey information has been obtained.

### *Design Considerations*

Planning proposals should consider the following:

- English Nature and RDS requirements;
- Inclusion of otter safeguards in new road developments, such as appropriate design of bridges, inclusion of otter passes above flood level; restricting use of culverts, provision of otter fencing;
- Retention, restoration or creation of safe, undisturbed lying up areas in urban riverside developments;
- Retention/enhancement of watercourses to provide safe passage;
- Deculverting of urban watercourses, combined with favourable habitat creation/enhancement;
- Provision of artificial holts;
- Appropriate management post-development;
- Monitoring of the effect of the development on otter populations.

### 1.3 Bats - General

#### **Legal framework**

All of Britain's bat species are protected through their inclusion on Schedule 5 of the Wildlife and Countryside Act (WCA) 1981 (as amended) and by the Conservation (Natural Habitats, &c.) Regulations 1994. This legislation meets the UK government's wider European obligations to protect bats enshrined in the Bern Convention, the EC Habitats Directive and the Agreement on the Conservation of Bats in Europe (Bonn Convention).

Bats are protected from killing, capture and injury, deliberate disturbance, (whether in a roost or not) and damage, destruction or obstruction of roosts. Since bats tend to re-use the same roosts, legal opinion is that the roost is protected whether or not bats are present at the time. English Nature should always be consulted when bats are affected by a planning proposal at the stage where full survey information has been obtained.

It is therefore important that where development might have an adverse impact on bats steps are taken to ascertain their presence. If bats are detected early in the development process it is more likely that they can be accommodated within any development without causing undue delay. Proposals for mitigation, future management and monitoring can then be considered at an early stage in the design process. .

People who need to work with bats for survey and research purposes are controlled by the WCA, which states that they are only allowed to catch or mark bats, enter roost sites or photograph them if they have been granted a licence issued by English Nature that covers them for these activities. Activities associated with development are controlled by means of licences issued by the Rural Development Service (RDS).

Ten species of bat have been recorded in Birmingham and the Black Country. Detailed guidance is available for the following six species:

- Brown long-eared (*Plecotus auritus*)
- Daubenton's (*Myotis daubentonii*)
- Noctule (*Nyctalus noctula*)
- Common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*P. pygmaeus*)
- Whiskered (*Myotis mystacinus*)

The following four species are less frequently encountered in Birmingham and the Black Country, and detailed guidance has yet to be prepared. However, in the absence of such guidance, developers are advised that the same legal powers, information requirements, survey standards and mitigation needs will apply to these species.

- Brandt's (*Myotis brandtii*)
- Leisler's (*Nyctalus leislerii*)
- Natterer's (*Myotis nattererii*)
- Serotine (*Eptesicus serotinus*)



Local authorities will work closely with English Nature, the local bat group and developers to ensure development proposals do not have an adverse impact on bats. Should a bat roost be present and suitable mitigation can be designed this will need to be covered by conditions and possibly a planning agreement. Survey and impact assessment cannot be conditioned. All bats are covered by the Birmingham & Black Country Biodiversity Action Plan. Objectives include the protection of bat roosts and the maintenance and enhancement of features in the landscape important to bats.

### ***Information Requirements and Survey Standards***

It can be difficult for developers to determine whether a proposed development site is likely to be used by bats. Research has led to local criteria being devised that can give guidance as to whether bat roosts are likely to be present on a site or not. Development that fits in with these criteria should be assumed as being a site where the presence of roosts is suspected and an appropriate survey should be carried out.

The criteria to be applied are:

- If any part of the application site lies within 50 metres of open land. This includes parks, golf courses, cemeteries, agricultural land, Green Belt, river valley or other open land.
- If any part of the application site lies within 50 metres of the following habitats or features: woodland, mature trees, wetlands, water-courses, canals and all designated wildlife sites.
- If the application site lies within a neighbourhood characterised by large mature gardens.
- If any part of the application site lies within 150 metres of a known bat roost.
- If neighbours or other consultees make credible claims that bats are present on an application site.

Where bats are known to be present, either roosting or habitually foraging\*, or where their presence is suspected, the applicant will be expected to gather sufficient information to ensure that an accurate and reasonable opinion can be reached about the importance of the site to bats and likely impacts should the development go ahead.

This should cover:

- Type of roost-hibernation/maternity/summer/temporary and timing of occupation;
- Foraging habitat and commuting routes used by bats (habitat survey work may need to be carried out between March and October);
- In the case of foraging habitat, its importance to the local bat population;
- Impacts of the development on roosts, foraging habitat, commuting routes;
- Mitigation proposals;
- Monitoring provision for mitigation work.

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\* *Foraging habitat includes woodland and woodland edge, hedgerows, scrub, parkland, gardens, grassland and open water.*

### **Requirements for survey and assessment for bats**

Survey work and the development of mitigation measures and monitoring work should be undertaken by suitably experienced bat workers or ecological consultants with a track record of working with bats. It is also important that the personnel are licensed by English Nature to carry out any survey work that would contravene the legislation protecting bats. English Nature has published *Bat Mitigation Guidelines* (2004) which should be followed. This document is available on the English Nature website\*.

Records should be obtained by the applicant from EcoRecord, the Biological Records Centre for Birmingham & the Black Country but absence of records should not prevent survey where there are reports of bats and/or the planning authority has identified the site as having bat roost potential.

Building & tree surveys should make use of endoscopes to examine inaccessible areas, cracks and crevices that could be used by bats. Emergence/foraging/commuting surveys should take place over three nights in good weather conditions, from one hour before sunset to dawn. As well as heterodyne detectors, image intensifiers and time expansion recording should be used.

Survey and assessment reports will be required to include the following (Bat Conservation Trust guidelines):

- Dates and times of survey;
- Personnel and qualifications
- Equipment used
- Weather conditions
- Description of site including detailed description of buildings including age, wall construction (solid/cavity, materials), cladding, roof covering, loft construction, access points;
- Potential and actual roost sites;
- Bat numbers actual and/or estimated;
- Bat species & how identified;
- Type of roost - hibernation, maternity, male etc.
- Bat signs - droppings (quantity, location, age), staining etc;
- Areas inaccessible for survey;
- Survey limitations and justifications for any departure from guidelines;
- A sketch if appropriate

#### **Assessment of impacts of development on:**

- Any roost(s) present or potential if not able to be confirmed due to survey constraints;
- Foraging areas and dispersal/commuting routes;
- The local bat population;
- Appropriate mitigation with details of design, techniques and timescale;
- Justification of chosen techniques and approach to show that the bat population will not be adversely affected;

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\* [www.english-nature.org.uk](http://www.english-nature.org.uk)

- Assessments of alternatives to the approach taken (including options of retaining roosts if these are to be lost and replaced)
- Monitoring provisions

Applicants should be aware that protection of existing habitat and/or roosting sites will be preferred over provision of alternatives. If loss cannot be avoided, incorporation of replacement roost sites/habitat will be expected as part of development.

#### *General Design Considerations*

Planning proposals, particularly those involving demolition, loft conversions, roofing work and house extensions, need to consider the following:

- Timing of work;
- Need for the exclusion of bats;
- The type of roost present, for example summer, maternity, winter roost;
- The likelihood of disturbance;
- The use of chemicals in timber treatment;
- The maintenance of access to roost sites;
- The retention of known summer and winter roost sites and/or provision of alternatives.

#### *Local issues - Wrens Nest and Castle Hill Bat Populations*

During survey and assessment work associated with limestone mine stabilisation at Wrens Nest National Nature Reserve and Castle Hill Site of Importance for Nature Conservation, between 1997 and 2003, it has become clear that these sites support hibernation roosts of some significance at the national level.

In order to facilitate protection an enhancement of the foraging and dispersal habitat used by the bat populations, the Dudley MBC Directorate of the Urban Environment commissioned a bat strategy. This document *Planning for Bats in Dudley* (Stebbing 2003) covers the main route believed to be used by bats to reach the hibernation sites and their main foraging areas. The affected area is largely concurrent with the Castle Hill to Sedgley Beacon Linear Open Space/Green Belt. Any proposed development in this vicinity requires special scrutiny.

## **1.4 Bats – Individual species guidance**

### **1.4.1 Brown long-eared bat (*Plecotus auritus*)**

#### *Lifestyle and Habitat Requirements*

This species is widespread throughout Britain and is the second most commonly found bat in Birmingham and the Black Country. The brown long-eared is a medium-sized bat which emerges late, after dark, and has a slow flight, often gliding and sometimes hovering near foliage. Its main diet is moths but it also takes craneflies and flies, especially midges. Brown long-eared bats are associated with mature trees and shrubs in woodland, parkland and orchards, even in built-up areas, where they feed. Hibernation and summer roosts are in houses and churches, especially attics, barns, roof spaces and cellars, and also in caves and tunnels, generally near the entrances. Temporary roosts can be found in shelters such as porches, churches, barns and hollow trees. These bats have been recorded using the hibernation roosts at Wrens Nest and Castle Hill.

#### *Additional Design Considerations*

In addition to the general design considerations above, planning proposals need to consider the following:

- The presence of underground cavities or structures and their possible suitability as roost sites;
- The creation, where possible, of fissures, artificial cavities and cracks by use of bat bricks, bat tiles, bat boxes etc;
- The retention and/or provision of, trees and shrubs, parkland and orchards as feeding habitat;
- Wherever possible the retention of old and decaying trees.

### **1.4.2 Daubenton's bat (*Myotis daubentonii*)**

#### *Lifestyle and Habitat Requirements*

This bat is widespread throughout Britain and is regularly recorded in Birmingham and the Black Country. It is a medium-sized bat and has a close association with still or slow-moving water, including ponds, pools, lakes, reservoirs and canals. They fly low and fast in wide circles just above the water surface and feed on flies, moths, beetles, mayflies and water boatmen. Daubenton's bats roost in holes in trees over or near water in summer and occasionally buildings. In the winter, they also use cavities, fissures and holes in buildings, caves and tunnels. These bats have been recorded using the hibernation roosts at Wrens Nest and Castle Hill and are common along the canal system.

#### *Additional Design Considerations*

In addition to the general design considerations above, planning proposals need to consider the following:

- The presence of underground cavities or structures and their possible suitability as roost sites;
- Protection of potential roost sites by retaining old trees and perhaps stonework with holes, cracks and fissures within new development.
- Protection or provision of above water feeding habitat.

### **1.4.3 Noctule bat (*Nyctalus noctula*)**

#### *Lifestyle and Habitat Requirements*

This species is widely distributed in England and Wales and is regularly recorded in Birmingham and the Black Country. Noctules are one of Britain's largest bats (the size of a swift) with narrow wings. They are able to cover great distances and are active soon after sunset. They feed often above water but also above trees and woodland, usually taking beetles but also crickets and moths.

They are heavily reliant on tree roosts for hibernation, breeding and summer roosting. This large bat will use quite large holes and cracks high up in trees – an old woodpecker hole is ideal. Colonies may regularly use three or four roosts. For feeding, trees, woodland, grassland and water in the form of large ponds, pools, lakes and reservoirs are required.

#### *Additional Design Considerations*

In addition to the general design considerations above, planning proposals need to consider the following:

- Retention of known roost sites in trees;
- Provision of potential roost sites by retaining old trees with holes within development;
- Protection or provision of trees, woodland and wetland feeding habitat.

### **1.4.4 Pipistrelles (*Pipistrellus pipistrellus*, *P. pygmaeus*)**

#### *Lifestyle and Habitat Requirements*

Pipistrelles can be regarded as the most widespread species of Britain's bats and often roost in large colonies. Pipistrelles are the smallest of the British bats. They feed just above head height after sunset, usually taking flies, moths, mayflies and lacewings.

Pipistrelles often use buildings, especially modern houses, for roosting, usually out of sight in the loft or roof space, often unknown to a house's human occupants. They also roost in rock fissures, cavities, caves and tunnels. They can use trees and ivy particularly for hibernation. Gardens, parks and open space, woodland edge, farmland and water are all important feeding habitats for these species.

#### *Additional Design Considerations*

In addition to the general design considerations above, planning proposals need to consider the following:

- The presence of underground cavities or structures and their possible suitability as roost sites;
- The creation, where possible of fissures, artificial cavities and cracks by use of bat bricks, bat tiles, bat boxes etc.;
- The retention and/or provision of grassland, trees and shrubs and the presence of water as feeding habitat;
- Wherever possible the retention of old and decaying trees.

#### **1.4.5 Whiskered bat (*Myotis mystacinus*)**

##### *Lifestyle and Habitat Requirements*

This bat is widespread in England and Wales, though it is relatively scarce in Birmingham and the Black Country. A small to medium-sized bat, it emerges early in the evening in comparison with other species. Whiskered bats usually fly alone but can sometimes be seen in groups and usually will follow a regular track repeatedly before moving elsewhere. Diet consists of mayflies, small moths and other flies.

Whiskered bats have variable habitat requirements but are usually not far from trees. Hibernation is usually undertaken in solitary fashion in cellars, caves, old houses or fissured cliffs, whereas in summer it lives in colonies using buildings and trees. In summer, they use hollow trees or roost behind tree bark and cracks in masonry and in cellars, houses and wooden buildings.

These bats have been recorded using the hibernation roosts at Wrens Nest and Castle Hill.

##### *Additional Design Considerations*

In addition to the general design considerations above, planning proposals need to consider the following:

- The presence of underground cavities or structures and their possible suitability as roost sites;
- Provision of alternative roost sites where old houses containing roosts are demolished.
- The creation, where possible of fissures, artificial cavities and cracks by use of bat bricks, bat tiles, bat boxes etc.;
- The retention and/or provision of trees and shrubs as feeding habitat;
- Wherever possible the retention of old and decaying trees.

## 1.5 White-clawed crayfish (*Austropotomobius pallipes*)

### *Legal Framework*

This species is protected under Schedule 5 of the WCA 1981 (as amended) and by inclusion in Annex II and V of the EC Habitats Directive. English Nature should always be consulted when freshwater crayfish are affected by a planning proposal since an RDS licence may need to be issued. The Environment Agency should be consulted in relation to proposals affecting watercourses. A Local Biodiversity Action Plan exists for this species.

### *Lifestyle and Habitat Requirements*

The white-clawed crayfish is a lobster-like crustacean that grows to 12cm in length. It is Britain's only native freshwater crayfish and is mainly restricted to England and Wales. Britain's population is significant in European terms.

Crayfish can be found in rivers, streams, lakes, reservoirs and water-filled quarries with relatively hard, alkaline water, and prefer rivers and streams without too much sediment. Crayfish are sensitive to pesticides and other pollutants particularly those lowering the oxygen content of the water. They feed on a wide range of vegetable and animal matter. Shelter such as rocks or stones, aquatic vegetation, tree roots or a bank to burrow into, is important for survival as crayfish are predated on by the larger species of fish as well as birds and otters. White-clawed crayfish are threatened by disease carried by the non-native signal crayfish.

All aspects of canal and river restoration, improvement, management work and works which have implications for water quality can potentially impact on this species.

### *Information Requirements and Survey Standards*

All proposals involving waterside habitat, especially watercourse engineering, bank modification or strengthening and bridge works, should provide the following information:

- Records of white-clawed crayfish for the watercourse concerned and the catchment as a whole;
- Up-to date survey where records indicate crayfish presence anywhere on the watercourse or within its immediate catchment;
- Measures to protect crayfish populations and habitat should they be present;
- Monitoring proposals.

When surveying for crayfish, it is important that competence and confidence in identification can be demonstrated. Survey work and the development of mitigation measures and monitoring work should be undertaken by suitably experienced surveyors or ecological consultants. It is also important that the personnel are licensed by English Nature to carry out any survey work that would contravene the legislation protecting crayfish.

This species is best surveyed either at dusk, by netting or pond dipping, or using torchlight after dark when the crayfish are more active. Surveys should be undertaken between April and October.

*Design Considerations*

Planning proposals affecting crayfish habitat should consider the following.

- Maintenance of suitable water quality and chemistry;
- Measures to avoid sediment or other polluting material entering the watercourse/water body;
- Protection or provision of refuges within and along the edge of water bodies, together with aquatic vegetation
- Maintenance or provision of soft banks for burrows.



## 1.6 Floating water-plantain (*Luronium natans*)

### *Legal Framework*

The provisions of Section 13 of the WCA 1981 make it an offence for a person to intentionally uproot any wild plant unless they are authorised to do so by the landowner.

Some rare plants, listed in Schedule 8 of the WCA 1981 and listed in Schedule 4 of the Habitats Regulations 1994, have additional protection. It is an offence for any person, including the landowner, to intentionally pick, uproot or destroy these specially protected wild plants. Floating water-plantain (*Luronium natans*), which occurs on canals in Birmingham and the Black Country, is one such species subject this greater level of legal protection.

In addition to its protected species status, floating water-plantain is a priority species in the UK Biodiversity Action Plan. A Local Biodiversity Action Plan also exists for this species. Objectives are to maintain its current range, protect it and its habitat and increase population size where possible.

A licence is required from English Nature for any survey or research work affecting this species, including the taking of samples for survey and identification purposes. English Nature should be consulted should floating water-plantain be found. Activities associated with development are controlled by means of licences issued by THE RDS.

### *Description, Lifestyle and Habitat Requirements*

Floating water-plantain is a European endemic aquatic plant that is rare and threatened across its whole range. In the UK its main area of distribution is in Snowdonia, mid-Wales and adjacent areas of north and central England. The population in Birmingham & the Black Country forms the most south-eastern part of the main area of distribution.

The plant occurs in a number of aquatic habitats, mostly characterised by a lack of competition and relatively low fertility. Almost all of the Birmingham and Black Country records are in or associated with the canal system. It grows as a submerged aquatic, a floating-leaved aquatic, and on exposed mud where water levels fluctuate.

All aspects of canal restoration, improvement and management works and proposals that have implications for water quality can potentially impact on this species.

### *Information Requirements and Survey Standards*

All proposals affecting canals and associated water-bodies, especially dredging, restoration or alterations to the channel, should provide the following information:

- Evidence of a records search;

- Aquatic plant survey;
- Should floating water-plantain be found, measures to protect the population.

The plants die back in the autumn and winter so survey should be carried out between May and August. A competence in botanical identification, especially of submerged and floating aquatic plant species, is a prerequisite when surveying for this species which must be identified in the field as samples cannot be taken. Verification of the identification by a licensed surveyor will be required.

*Design Considerations.*

If floating water-plantain might be affected by planning proposals, the following should be incorporated into scheme design:

- Protection of individual plants during works affecting the habitat;
- Creation of refuges within and alongside water bodies to protect against disturbance;
- Protection of water quality.

## 2.0 Species Protected under the Wildlife & Countryside Act

### 2.1 Birds - General

All wild birds and their nests are protected under the WCA 1981 and CROW Act 2000. It is an offence to kill or injure any wild bird, nests may not be damaged or destroyed while in use or being built, and eggs may not be taken or destroyed. In addition, species listed on Schedule 1 of the WCA are protected by special penalties. For these species, it is an offence to disturb any nesting bird or dependent young and/or to interfere with its nest and nesting site. Where birds are present and/or breeding on a development site, appropriate timing of works will be required to ensure no adverse effects on nesting, breeding and feeding.

English Nature should be consulted when Schedule 1 birds are affected by a development proposal. Consideration should be given to protection and/or enhancement of foraging habitat

Six WCA Schedule 1 species of bird have been recorded breeding in Dudley or in the wider area of Birmingham and the Black Country and are covered by detailed guidance. They are:

- Barn owl (*Tyto alba*)
- Black redstart (*Phoenicurus ochruros*)
- Hobby (*Falco subbuteo*)
- Kingfisher (*Alcedo atthis*)
- Little ringed plover (*Charadrius dubius*)
- Peregrine falcon (*Falco peregrinus*)

In addition to those birds requiring attention because of their Schedule 1 status, a number of species found in Birmingham and the Black Country have been identified as being of conservation concern. This is the result of a recent review of the population status of birds in the UK by the RSPB, BTO and other governmental and non-governmental conservation organisations.

Red list species are those that are globally threatened or whose population or range has declined rapidly in recent years - by more than 50% in 25 years. Amber list species are those whose population or range has declined moderately – by more than 25%, but less than 50%, in 25 years. This group also includes species with internationally important populations in the UK.

Of particular concern in the urban areas of Birmingham and the Black Country is the inclusion of two common urban birds – starling and house sparrow – on the red list. These species have been included because of long term population declines. Other red list species present in the conurbation include skylark, song thrush, willow tit, linnet, bullfinch, tree sparrow and reed bunting. Amber list species include kestrel, lapwing, house martin, grey wagtail, willow warbler and goldcrest.

Specific guidance related to these species may be added at a later date.

## **General Information Requirements and Survey Standards for Birds**

### *Information Requirements*

Where there is evidence that:

- Schedule 1 species breed on or use the site, or there is a strong suspicion that this is the case; or
- that suitable breeding habitat is present in proximity to a known population; or
- that development may have a significant effect on an area of continuous or discontinuous but linked feeding habitat e.g. barn owl feeding territory:

then information may need to be collected as follows:

- Long term records of species use of the site/locality if available;
- The size of population and breeding status;
- Location of breeding site(s) where directly or indirectly affected by development;
- The nature and size of feeding habitat;
- An assessment of the importance of the site to the species;
- An assessment of impact of the development and proposals for mitigation.
- Proposed management of breeding resting and feeding habitat

### *Survey standards*

Survey should be carried out by appropriately qualified/experienced personnel. Survey methods and timing depend on the species concerned, although generalised guidance on survey timing can be found in figure 1. Records search may indicate that sufficient data is already available, in which case further survey may not be required.

### **2.1.2 Barn owl (*Tyto alba*)**

#### *Lifestyle and Habitat Requirements*

Once relatively common in lowland habitats, this species has suffered significant decline attributed to the loss of prey-rich foraging areas resulting from the intensification of agricultural practices; the destruction of traditional breeding sites; urban development; increased use of pesticides; and road construction on foraging habitat. This owl is largely nocturnal but also active at dawn and dusk. It roosts in trees as well as buildings. Barn owls nest in draught-free sites in buildings, tree cavities and caves. Food consists of small mammals, particularly short-tailed field voles, which they hunt by flying low and slowly over foraging habitat, which is rough grassland with field margins, hedgerows and woodland edges.

In carrying out survey and designing mitigation, the guidance in the English Nature publication 'Barn owls on site – A guide for developers and planners' 2002 should be followed.

#### *Design Considerations*

Planning proposals need to consider the following:

- Protection and/or provision of safe and secure nesting sites;
- The retention and provision of suitable foraging habitat on and/or off site and access to this;
- Appropriate foraging habitat management.

### **2.1.3 Black redstart (*Phoenicurus ochruros*)**

#### *Lifestyle and Habitat Requirements*

The black redstart is a cavity, cliff and ledge nesting bird and in Britain has a clear preference for buildings or ruins. They can also nest in railway sidings and lorry parks. The breeding season runs from mid-April to mid-July and two broods can be raised. Food in the breeding season consists of insects, which are usually foraged on the ground from wasteland near to nest sites. This bird is normally a summer visitor. The first pair bred in Birmingham in 1943. By the 1980's, the Snow Hill Station and Gas Street Basin areas of the city were regarded as "traditional" breeding sites. Since then breeding has also been reported on factory sites in the Black Country, often adjacent to the canal network. Many nest sites are near water. This species is the subject of a local Biodiversity Action Plan. Objectives are to maintain and increase the Birmingham and Black Country breeding population.

#### *Design Considerations.*

Planning proposals need to consider the following:

- Renovation, alteration or demolition may well be controlled by the Wildlife & Countryside Act if the species is present and breeding.
- Where the renovation, alteration and demolition of old buildings are anticipated, especially those located alongside canal, rail or Metro corridors, the incorporation of features providing secure cavities or ledges for breeding purposes.
- The protection, provision and/or availability of foraging habitat, normally of a wasteland type, near to the nest site. "Brown roofs" on buildings

should be considered where sufficient terrestrial landscaping cannot be provided.

#### **2.1.4 Hobby (*Falco subbuteo*)**

##### *Lifestyle and Habitat Requirements*

This is a small slender falcon with shortish tail and scythe-like wings, rather like a huge swift. In courtship, it undertakes spectacular display flights. It is a summer visitor, wintering in Africa, though it also occurs as a passage migrant. It is thought to be expanding its range in Britain. The hobby frequents open country and heaths with tree clumps, and farmland with old hedgerow trees and woodland edges, habitats normally associated with urban fringes. It usually nests in old crow nests but has been known to nest on structures such as pylons. The breeding period lasts between June to August and one brood is raised. Diet consists of small birds and large insects, which it hunts on the wing. As breeding birds, hobbies occur at only low densities, 3 to 5 pairs per 100sq.km, so an individual proposal is likely to affect only a small part of foraging territory.

##### *Design Considerations*

Planning proposals need to consider the following:

- Use of the site for nesting and/or foraging.
- Retention or provision of suitable nesting sites such as old trees and/or pylons.
- Where hobbies are known to use a site suitable foraging habitat such as open habitat with woodland edges, trees and hedgerows should be protected and/or provided.

#### **2.1.5 Kingfisher (*Alcedo atthis*)**

##### *Lifestyle and Habitat Requirements*

A small blue bird associated with Britain's rivers, canals and other open waters, kingfishers are highly popular with the British public. They are resident throughout the year. They nest in holes in banks above water and feed on fish and freshwater invertebrates which they catch by diving in from overhanging perches provided by trees and shrubs. Moderate water quality is required in order that fish and insects can survive to provide a potential diet. They have been known, however, to nest above polluted water and feed elsewhere. For nesting sites kingfishers require vertical riverbanks allowing for holes at least 1.5m above normal water level and, as the bird's nesting hole is dug around a metre into the bank, of sufficient width to accommodate this and to give protection from predators.

##### *Design considerations*

Planning proposals, which affect watercourses, canals and other surface water features need to consider the following:

- Bank side nesting sites, habitat and fishing perches.
- Effects on water quality.
- Water quantity and flow and effects on breeding and feeding habitat.
- Provision of artificial nesting sites along appropriate watercourses.

### **2.1.6 Little ringed plover (*Charadrius dubius*)**

#### *Lifestyle and Habitat Requirements*

This small wader is a regular summer visitor to Britain between March to October. It can be distinguished from the slightly larger ringed plover by a pale ring around the eye. Little ringed plovers are strongly associated with bare ground habitat such as that provided by clay pits, spoil heaps and rubbish tips, often close to water. They can be quick to exploit newly exposed sites, the nest being merely a scrape in the ground. Breeding sites are abandoned if vegetation cover becomes established. Breeding takes place between April and July. Breeding status should be suspected if birds are noted undertaking their noisy display flights over suitable bare habitat. They feed on insects and small molluscs which are usually found in waterside sand and shingle ridges, gravel pits etc. This species is highly susceptible to disturbance whether by human intervention or animal predators.

#### *Design Considerations*

Planning proposals for a little ringed plover breeding site need to consider the following:

- The retention and/or provision of open bare habitat of a shingly nature close to water.
- Measures to ensure that no work is carried out or disturbance caused during the breeding season.
- Control of public access to any breeding and /or feeding areas during the breeding season.

### **2.1.7 Peregrine falcon (*Falco peregrinus*)**

#### *Lifestyle and Habitat Requirements*

A large robust falcon with a powerful flight, feeding almost exclusively on birds which it takes in the air. Associated with mountain and coastal cliffs and crags where it nests, it is now showing a tendency to nest on the ledges of high buildings, quarries and structures, even in urban areas. Though occasionally occurring as scarce visitors or passage migrants, several British towns and cities now have resident pairs where they exploit a ready supply of pigeons. Pairs are known to breed in Birmingham city centre and in the Black Country. Breeding normally occurs between April and July. This is a species that has a marked susceptibility to disturbance.

#### *Design Considerations*

Planning proposals need to consider the following:

- Protection of existing breeding or potential breeding sites.
- Where development consists of the refurbishment of existing tall structures, the provision/retention of ledges sheltered from prevailing weather and from disturbance.
- Where proposals involve quarrying, opportunities for creating ledges sheltered from prevailing weather and from disturbance.

## 2.2 Reptiles - General

Four species of Britain's protected reptiles have been recorded in Birmingham and the Black Country. They are:

- Slow worm (*Anguis fragilis*)
- Common lizard (*Lacerta vivipara*)
- Adder (*Vipera berus*)
- Grass snake (*Natrix natrix*)

### *Legal Framework*

These species are protected under Schedule 5 of WCA 1981 against intentional killing or injuring. The animals themselves can be moved, however if this is necessary.

### *Information Requirements and Survey Standards*

Where reptiles are known to be present or have been recorded on or immediately adjacent to a site that is the subject of a planning application, developers will be requested by the Council to provide:

- Information about population status and hibernation, feeding and basking sites.
- An evaluation of the importance of the site to the population using it.
- An assessment of the impact of the proposed development.
- Proposals for mitigation in respect of the population.

Records of these species usually result from chance encounters in suitable habitats. They are mostly inconspicuous and difficult to search for. April, May and September are the best months for surveying, when animals are most likely to be seen basking. Use of artificial refugia is a useful survey technique in certain situations. . *The Herpetofauna Workers Manual* produced by the Joint Nature Conservation Committee in 1998 provides the most comprehensive digest of surveying.

The future management and monitoring of reptiles and their associated breeding, resting, feeding and hibernating habitat may need to be addressed whilst determining any planning application.

Developers should be aware that re-location schemes are not favoured by local authorities as they are not proven and are not regarded as a substitute for the retention and/or provision of suitable habitat and/or hibernation sites.

To assist developers, the specific requirements of the four species are set out below.



### **2.2.1 Slow worm (*Anguis fragilis*)**

#### *Lifestyle and Habitat Requirements*

The slow worm is associated with dry habitats such as grassland and scrub, particularly along railway and canal corridors in urban areas and other places where disturbance is at a minimum such as churchyards, allotments and gardens. They require thick vegetation, especially grasses, along with loose soil to burrow in and plenty of refugia. They are not reliant on direct sunlight and can absorb radiated heat from contact with warm surfaces. . Hibernation takes place underground through the autumn and winter and the species is active from early spring to mid-October though is often scarcely noticed since it can be active beneath the ground surface as well as above. The normal diet is slugs and snails though other invertebrates are eaten as well. The breeding season lasts from May to September.

#### *Design Considerations*

Planning proposals need to consider the following:

- Retention and/or provision of dry grassland and scrub where disturbance is minimal.
- Provision of habitat piles of stones and logs, which are important as resting/hibernation sites.

### **2.2.2 Common lizard (*Lacerta vivipara*)**

#### *Lifestyle and Habitat Requirements*

Common lizards are small, quick brown reptiles which are found in open, sunny places. Typical habitats include heaths, grasslands, hedgerows, and woodland edges. In urban areas, railway embankments and “wasteland” sites provide favourable conditions - vegetation with structural variety, plenty of refuges and suitable micro-climate. Sheltered, sunny spots are used for basking, especially earlier and later in the day. Refuges such as logs, rubble and general debris are used to shelter at other times. Common lizards feed mostly on spiders and insects, although earthworms and snails may also be taken. They give birth to live young between June and September, and spend the cooler months of the year – usually October to March – in hibernation.

#### *Design Considerations*

Planning proposals need to consider the following:

- Retention and/or provision of access to areas of suitable open habitat.
- Management to prevent the growth of trees and scrub that would shade the open habitat.
- Protection and/or provision of good quality wildlife corridors linking breeding/foraging habitat, and enabling dispersal
- Provision of habitat piles of stones, logs or other suitable material to provide resting/hibernation sites.

### **2.2.3 Adder (*Vipera berus*)**

#### *Lifestyle and Habitat Requirements*

The adder is found throughout the country though rare over much of central and southern England. Significant colonies are known to exist in the Wyre Forest National Nature Reserve near Bewdley. Although the venomous nature of the species can cause public concern, adders generally avoid

contact with people. Adders are normally associated with open areas such as heathland, grassland and scrubby areas but are also found in meadows, embankments, woodland rides and edges and boggy ground. They require habitat for hibernation, basking and feeding. Hibernation in winter/cold weather takes place in holes (possibly small mammal holes) in dry banks, which may be between 500m and 2000m from their usual range. For basking they require open dry sunny areas. They feed on a range of prey including small mammals, nestling birds, amphibians, other reptiles, and invertebrates such as spiders, slugs, snails and worms. Mating takes place in the latter half of April and early May, leading to the birth of live young in the first half of August. They are born fully formed and disperse not long after birth.

#### *Design Considerations*

Planning proposals need to consider the following:

- Retention and/or provision of access to areas of suitable open habitat.
- Management to prevent the growth of trees and scrub that would shade the open habitat.
- Protection and/or provision of access routes linking breeding/foraging habitat.
- Well-drained frost-free areas, such as banks or walls retained or provided for winter hibernation.

#### **2.2.4 Grass snake (*Natrix natrix*)**

##### *Lifestyle and Habitat Requirements*

Restricted to England and Wales, this is the largest species of British snake growing up to 100cm long. It has an olive green body with a distinct yellow and black collar behind the head. Grass snakes are not venomous and feed on a range of prey including small mammals, young birds, amphibians, invertebrates such as slugs and snails, fish and other aquatic prey. They are often found in damp habitats associated with ponds, streams, dykes, rivers, wet ditches and wet grassland. They also seek prey on land and in shrubs, which they climb and in which they also bask. Mating takes place between the end of March and June with young hatching about the end of August or early September. The laying site can be as far as 1000m from the usual feeding habitat and several females may lay at one site. Egg-laying sites include dunghills and compost heaps, meaning that gardens with heaps potentially provide vital habitat during the grass snake life cycle. Hibernation takes place in holes, burrows and even stone walls located as far as 2000m from their usual habitat.

#### *Design Considerations*

Planning proposals need to consider the following:

- Protection and/or provision of suitable accessible habitat on and/or off site.
- Protection and/or provision of access routes linking areas of breeding/foraging habitat
- Provision of incubation sites in the form of piles of vegetation or grass clippings.

- Well-drained frost-free areas, such as banks or walls with holes, are needed so that they can survive the winter.
- Management to prevent the growth of trees and scrub that would shade the open habitat.

## 2.3 Mammals

### 2.3.1 Badger (*Meles meles*)

#### *Legal Framework*

The Protection of Badgers Act 1992 protects the animals themselves from harm or from disturbance when occupying a sett, and protects setts against damage, destruction or obstruction. In order to undertake the development of land (as defined in Section 55(1) of the Town & Country Planning Act (1990)) or to carry out any work that would entail interference with or disturbance of setts, a licence from English Nature, must be obtained. This covers operations up to 30 metres from setts. Licences are not granted during the breeding season – December-June. A Local Biodiversity Action Plan exists for this species. Objectives are to protect their setts and to protect and enhance habitat.

#### *Lifestyle and Habitat Requirements*

One of Britain's most popular and unmistakable native wild mammals; badgers are mostly nocturnal but can be active during the day near dawn and dusk. Though generally thought to be woodland animals, badgers can occupy a wide range of other habitats, including scrub, grassland and open space in urban areas. These latter habitats are especially important from a foraging point of view. Open corridors in urban areas such as railway lines, water courses, canals and linked open spaces are important for the movement of badgers and the definition of territories. Badgers are creatures of habit such that setts and badger pathways may be in use for decades or even centuries.

The badger has a lifestyle based around social or family groups associated with a sett or setts, which are underground tunnel systems providing shelter for breeding, lying up, and seasonal use related to foraging. Territories range in size from 15 - 180ha. Setts are located on well-drained banks where soils can be easily worked and where there is foliage cover around the holes. Sandy soil is preferred.

Earthworms provide the bulk of the badger's diet, though small mammals such as field voles, insects, birds' eggs, fruits and berries, cereals and green plants contribute. Grassland is often important for foraging, as is arable land. Badgers tend to use habitual routes between setts and foraging territory and may not be deterred by obstacles such as fences and roads. This can lead to road casualties. Mating takes place from February onwards up to as late as November. The breeding season is December to June with February seeing the peak of cub births. Female badgers are capable of delayed implantation, which means that they can regulate birth to the best time of year.

#### *Information Requirements and Survey Standards*

The amount of information required in support of a planning application will depend on the potential impact that the work is likely to have on the local badger population. This information should address:

- The status and occupancy of all setts affected or not, available to the social group(s);
- Effects of the development on setts and on the badger social group(s);

- The presence and location of badger walkways and pathways;
- The extent and location of foraging habitat;
- The scale, nature and timeframe of badger activity;
- Mitigation required to avoid damage to badgers and to comply with legal requirements.

Given this species' liability to persecution, it is of utmost importance that the issues relating to development proposals are dealt with in a confidential manner.

Survey and mitigation proposals and licensed work should be undertaken by recognised and competent ecological consultants with a proven record of badger work.

### *Design Considerations*

Planning proposals should take into account the following:

- Any work affecting badgers or their setts is illegal without a licence, issued by English Nature. This may apply to activities up to 30 metres from a sett;
- Timing of work. There is a presumption against issuing licences between December 1st and June 30th (the badger breeding season);
- Design layout to accommodate setts and access to foraging habitat;
- Badger use patterns within the site and to and from adjacent habitat;
- Management of foraging habitat where appropriate;
- Protection of badgers and their setts will not be considered sufficient mitigation if foraging habitat or safe access to this is not safeguarded. This should include provisions to avoid or minimise risks of road casualties.

### **2.3.2 Water vole (*Arvicola terrestris*)**

#### *Legal Framework*

The water vole receives protection through its inclusion on Schedule 5 of the Wildlife & Countryside Act 1981. This legal protection makes it an offence to intentionally damage or destroy or obstruct access to any structure or place which water voles use for shelter or protection; or disturb water voles while they are using such a place. Licences are available from English Nature to allow activities that would otherwise be offences, for example for scientific or educational purposes. If water voles are present or suspected on a site, liaison with English Nature will be necessary once full survey information has been obtained and mitigation proposals have been developed. In relation to riverbank or channel management work, the Environment Agency should be consulted.

A Local Biodiversity Action Plan exists for this species. Objectives are to protect current populations, to restore population levels, and to protect, enhance and restore habitat. This century has seen a long-term decline, which has accelerated in the 1980's and 90's, making this formerly common species a rare sight over much of the country. The reasons for this decline are complex but certainly involve degradation and loss of bankside habitat, isolation of populations, and the spread of mink, an effective predator of water voles. Recent research in Birmingham and the Black Country suggests that the urban area is of increasing importance as populations in rural counties decline.

#### *Lifestyle and Habitat Requirements*

The water vole is the largest of the native British voles and as the name suggests it is associated with riparian habitats throughout Britain. Water voles are shy and rarely seen; though the characteristic 'plop' as they dive into the water may sometimes be heard. They are associated with rivers, streams, brooks, canals, ditches and sometimes ponds and larger water bodies.

Voles require soft banks for burrows for shelter and breeding and marginal vegetation with soft tissue such as grasses, reeds etc. for food supply. Burrows may also be found in holes and crevices in brick or stone canal banks. Though they do not hibernate, water voles are not very active above ground in the winter. Characteristic signs of vole activity include latrines (collections of droppings), feeding stations and burrows. Burrows can be surrounded by grazed 'lawns'.

#### *Information Requirements and Survey Standards*

All developments involving waterside habitat, especially watercourse engineering or bank modification or strengthening and bridge works, should provide the following information:

- Water vole presence and status, including recent survey information and past records, on the development site;
- As water voles are rarely seen, surveys should be based on the presence of characteristic signs up to 2m away from the banks and edges of watercourses and ponds. Signs should be recorded on a detailed map.

- Records of water voles for adjacent stretches of any watercourse or canal affected;
- If present, appraisal of the effect of the development on water voles and details of mitigation.

Surveys should be carried out between March and October when voles are active. Guidance on survey methods and mitigation techniques can be found in the *Water Vole Conservation Handbook* published by English Nature and the Environment Agency. Expert advice may be required to assess development impacts.

#### *Design considerations*

Planning proposals need to address the following:

- Retention/creation of features of water vole conservation value such as soft banks or gaps in reinforcement, stands of marginal vegetation, bankside shrubs and long grass for cover
- As water voles confine their activities to within 2m of water, they can be accommodated by maintaining or creating wildlife corridors along watercourses and undeveloped areas around ponds.
- The straightening, deepening, piling, concreting and canalisation of watercourses exclude water voles. Any such proposals will not be supported unless vole habitat is incorporated or alternative habitat provided nearby.
- The loss of riverbank or canal habitat or a pond or ditch may be mitigated by the construction of a new habitat of equivalent area or length. The new habitat should be ready before the old one is destroyed.
- Phasing of dredging and canalisation work in an upstream direction and creation or retention of refuges to allow maintenance of local populations.

## NATURE CONSERVATION SUPPLEMENTARY PLANNING DOCUMENT

### APPENDIX 2 – BIRMINGHAM & BLACK COUNTRY BIODIVERSITY ACTION PLAN HABITATS & SPECIES

#### Habitats

Arable fields  
Arable field margins and beetle banks  
Buildings and the built environment  
Canals  
Deadwood  
Eutrophic urban pools  
Gardens, allotments, parks and public open space  
Garden ponds  
Grassland:  
Lowland dry acid grassland  
Lowland neutral and base-rich grassland  
Lowland wet grassland  
Hedgerows  
Lowland heathland:  
Rivers and streams  
Urban “wasteland”  
Woodland  
Ancient and semi-natural woodland  
Wet woodland  
Lowland wood-pasture and parks  
Veteran and notable trees  
Scrub and naturally regenerating woodland  
Introduced woodlands  
Secondary woodland

#### Species

Amphibians (frog / toad / smooth newt)	Wall brown
Badger	Water vole
Bats	White-clawed crayfish
Black redstart	
Bluebell	
Brown hare	
Floating water plantain	
Great crested newt	
Green hairstreak	
Grey partridge	
Kestrel	
Orchids	
Skylark	
Snipe	
Song thrush	
Tree sparrow	
<i>Vaccinium</i> species (bilberry and relatives)	



## NATURE CONSERVATION SUPPLEMENTARY PLANNING DOCUMENT

### APPENDIX 3 -Countryside and Rights of Way Act 2000 s74 priority habitats and species found in the Black Country (habitats to be added, species list to be completed)

#### Species

<i>Acrocephalus palustris</i>	Marsh Warbler
<i>Alauda arvensis</i>	Skylark
<i>Amara famelica</i>	a ground beetle
<i>Arabis glabra</i>	Tower Mustard
<i>Arvicola terrestris</i>	Water Vole
<i>Asilus crabroniformis</i>	a robber fly
<i>Austropotamobius pallipes</i>	Freshwater Crayfish
<i>Bombus ruderratus</i>	Large Garden Bumble Bee
<i>Botaurus stellaris</i>	Bittern
<i>Caprimulgus europaeus</i>	Nightjar
<i>Carduelis cannabina</i>	Linnet
<i>Carex vulpina</i>	True Fox-sedge
<i>Centaurea cyanus</i>	Cornflower
<i>Dianthus armeria</i>	Deptford Pink
<i>Emberiza schoeniclus</i>	Reed Bunting
<i>Eurodryas aurinia</i>	Marsh Fritillary
<i>Juniperus communis</i>	Juniper
<i>Jynx torquilla</i>	Wryneck
<i>Lanius collurio</i>	Red-backed Shrike
<i>Luronium natans</i>	Floating Water-plantain
<i>Lutra lutra</i>	Otter
<i>Melanitta nigra</i>	Common Scoter
<i>Mentha pulegium</i>	Pennyroyal
<i>Miliaria calandra</i>	Corn Bunting
<i>Muscicapa striata</i>	Spotted Flycatcher
<i>Passer montanus</i>	Tree Sparrow
<i>Perdix perdix</i>	Grey Partridge
<i>Pilularia globulifera</i>	Pillwort
<i>Pipistrellus pipistrellus</i>	Pipistrelle
<i>Potamogeton compressus</i>	Grass-wrack Pondweed
<i>Pyrrhula pyrrhula</i>	Bullfinch
<i>Ranunculus tripartitus</i>	Three-lobed Crowfoot
<i>Scandix pecten-veneris</i>	Shepherd's-needle
<i>Silene gallica</i>	Small-flowered Catchfly
<i>Streptopelia turtur</i>	Turtle Dove
<i>Triturus cristatus</i>	Warty Newt
<i>Turdus philomelos</i>	Song Thrush

## NATURE CONSERVATION SUPPLEMENTARY PLANNING DOCUMENT

### APPENDIX 4 - LIST OF PRINCIPAL NATIVE TREES, SHRUBS AND CLIMBERS IN KEEPING WITH THE LOCAL CHARACTER OF DUDLEY

#### KEY

W = Wet or damp habitats

A = Acid habitats (Triassic Sandstones and Middle Coal Measures)

N = Neutral habitats (Carboniferous Etruria Marls and Halesowen Beds)

C = Calcareous habitats (Silurian Limestone)

#### Trees and Shrubs

Alder Common - *Alnus glutinosa* (W)

Ash - *Fraxinus excelsior* (N,C)

Birch Silver - *Betula pendula* (A)

Birch Downy - *Betula pubescens* (W,A)

Blackthorn - *Prunus spinosa* (N,C)

Cherry Wild - *Prunus avium* (N)

Crab Apple - *Malus sylvestris* (N)

Dogwood - *Cornus sanguinea* (C)

Elder - *Sambucus nigra* (W,N)

English Oak - *Quercus robur* (N)

Sessile Oak - *Quercus petraea* (A)

Gorse - *Ulex europaeus* (A)

Guelder Rose - *Virburnum opulus* (W,N)

Hawthorn - *Crataegus monogyna* (A,N,C)

Hazel - *Corylus avellana* (A,N,C)

Holly - *Ilex aquifolium* (A,N)

Mountain Ash, Rowan - *Sorbus aucuparia* (A)

Willow, Crack - *Salix fragilis* (W)

Willow, Goat, Pussy Willow, Sallow - *Salix caprea* (W)

Willow, Osier - *Salix viminalis* (W)

Willow, White - *Salix alba* (W)

Yew - *Taxus baccata* (C)

#### Climbers

Dog rose - *Rosa canina* (N,C)

Honeysuckle - *Lonicera periclymenum* (A,N,C)

Ivy - *Hedera helix* (W,N,C)

## NATURE CONSERVATION SUPPLEMENTARY PLANNING DOCUMENT

### APPENDIX 5 – CONTACTS AND REFERENCES

#### Contacts

##### Bat Conservation Trust

Advice and information on bat ecology, conservation and legal requirements.  
Leaflets on bat species and their conservation.  
15 Cloisters House, 8 Battersea Park Road, London SW8 4BG Bat Helpline  
0171 627 8822

##### British Waterways

Information and advice relating to canals and their wildlife, including water voles.

Conservation Officer, National Office:

Llanthony Warehouse, Gloucester Dock, Gloucester, GL1 2BJ

Birmingham and Black Country:

Albert House, Quay Place, 92-93 Edward Street, Birmingham B1 2RA 0121  
200 7400

##### Dudley Metropolitan Borough Council Directorate of the Urban Environment

3 St. James Road, Dudley, West Midlands. DY1 1HZ.

Tel: 01384-818181, Fax: 01384 814141.

Development Control:- Information and advice on Unitary Development Plan requirements and submission of planning applications.

Nature Conservation Officer:-Information and advice on nature conservation matters including surveys, records, habitat protection, restoration and creation, and the Birmingham and Black Country Biodiversity Action Plan.  
01384 814195

##### EcoRecord

The Local Biological Records Centre for Birmingham and the Black Country.

Site and species data provided (a fee may be charged).

28 Harborne Road, Edgbaston, Birmingham B15 3AA.

Tel: 0121 454 1808

##### English Nature

Must be contacted regarding any proposal affecting protected species (when full survey information as been obtained).

Information on habitat and species management practices.

Information on National and Local Biodiversity Action Plans

West Midlands Region:

Attingham Park, Atcham, Shrewsbury, SY4 4TW

01743 282000

National Office:

Northminster House, Peterborough, PE1 1UA

##### The Environment Agency

For any proposal affecting watercourses, ponds or other surface water features and disposal of waste water. For advice on sustainable treatment of surface water, management of water courses, pond creation and management.

Upper Severn catchment

Hafren House, Welshpool Road, Shrewsbury, SY3 8BB

Upper Trent catchment:

Sentinel House, Wellington Crescent, Fradley Park, Lichfield, Staffordshire, WS13 8RR

#### Froglife

Advice on the conservation of all amphibians and on pond creation and management

White Lodge, London Road, Peterborough PE7 0LG

#### Herpetological Conservation Trust

Advice on the conservation of amphibians and reptiles

655a Christchurch Road, Boscombe, Bournemouth, Dorset BH1 4AP

#### National Federation of Badger Groups

Advice on badger conservation and legal requirements, contact for local badger groups

c/o 15 Cloisters House, 8 Battersea Park Road, London SW8 4BG

#### Pensnett Wildlife Group

Advice and records for local amphibian populations across the Black Country and Birmingham

#### Royal Society for the Protection of Birds

Information on habitat and management requirements for birds.

Headquarters:

The Lodge, Sandy, Bedfordshire SG19 2DL. Tel: 01767-680551

Midlands Regional

Office Banbury, Oxfordshire, OX16 9AB

#### The Wildlife Trust for Birmingham and the Black Country

Information on National and Local Biodiversity Action Plans.

Information on site, habitat and species management practices.

Environmental appraisal and surveys

28 Harborne Road, Edgbaston, Birmingham B15 3AA.

Tel: 0121 454 1199

## References

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The Birmingham and Black Country Biodiversity Action Plan

The Black Country Nature Conservation Strategy

The Nature Conservation Strategy for Birmingham  
CIRIA (2004) *Working with wildlife training pack*. CIRIA, London

DETR (1994) *Planning Policy Guidance Note 9-Nature Conservation*. The Stationery Office, London

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English Nature, Peterborough

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Royal Town Planning Institute (1999) *Planning for Diversity - Good Practice Guide*. Royal Town Planning Institute, London

### Badgers

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English Nature (2002) *Badgers- Guidelines for Developers*. English Nature, Peterborough

Harris, S et al 1994 *Problems with Badgers?* RSPCA Wildlife Department, Horsham West Sussex

### Bats

Bat Conservation Trust (1997) *Bats and Trees- A Guide to the Management of Trees*. (leaflet)

English Nature (1992) *Focus on Bats* (leaflet) English Nature, Peterborough

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Mitchell-Jones, A and McLeish, A (eds) (2004) *The Bat Workers' Manual* (3<sup>rd</sup> edition). JNCC, Peterborough. Can be downloaded from JNCC website: [www.jncc.gov.uk](http://www.jncc.gov.uk)

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Stebbing R. (2003) *Planning for Bats in Dudley* Directorate of the Urban Environment

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### **Birds**

Batten, L A et al (1990) *Red Data Birds in Britain*. Pub on behalf of the Nature Conservancy Council and RSPB by T & A D Poyser.

Harrison, G (ed) (1982) *The Birds of the West Midlands* West Midlands Bird Club

Mead, C (1990) *Owls* Whittet Books

RSPB et al. (2002) *The population status of birds in the UK: birds of conservation concern 2002-2007*. RSPB Sandy, Bedfordshire. Report can be downloaded from RSPB website: [www.rspb.org.uk](http://www.rspb.org.uk).

### **Great crested newts**

English Nature (2001) *Great crested newt mitigation guidelines*. English Nature, Peterborough. Can be downloaded from EN website: [www.english-nature.org.uk](http://www.english-nature.org.uk)

English Nature (1996) *Great Crested Newts- Guidelines for Developers*. English Nature, Peterborough

English Nature (1994) *Facts about Great Crested Newts*. (leaflet) English Nature, Peterborough

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Froglife (2001) *Great Crested Newt Conservation Handbook*. Froglife, Suffolk.

Gent T. & Gibson S. eds (1998) *Herpetofauna Workers' Manual* Joint Nature Conservation Committee

### **Water voles**

English Nature (1999) *Water Voles Guidelines for Developers and Planners*. English Nature, Peterborough

Strachan, R (1998) *Water Vole Conservation Handbook*. English Nature, Environment Agency and Wildlife Conservation Research Unit, Oxford

**White-clawed crayfish**

Holdich, D M (1991) "The native crayfish and threats to its existence." *British Wildlife* 2 (3): pp141 - 151

National Rivers Authority *A Guide to Identifying Freshwater Crayfish in Britain and Ireland* (leaflet)