



SPECIALISTS IN: HABITAT AND SPECIES SURVEY ECOLOGICAL IMPACT ASSESSMENT MANAGEMENT PLANNING
AND ADVICE

Land off Cheadle Road, Cheddleton, Staffordshire

Preliminary Ecological Assessment

Prepared by
ECO TECH Ecological Consultancy

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1 INTRODUCTION

1.1 Terms of Reference

This report considers the likely impacts on nature conservation of any residential development on land off Cheadle Road, Cheddleton, Staffordshire (central NGR: SJ968501).

The area subject to survey is approximately 3.3 hectares as shown on Figure 1, currently primarily comprising cattle grazed poor semi-improved grassland.

Eco Tech Ecological Consultancy compiled this report utilising existing records and information derived from a range of habitat and species surveys.

Habitats and species are evaluated on a national, county (Staffordshire) and site basis. Measures to mitigate or compensate for any likely significant impacts on features identified as being of nature conservation value are suggested.

1.2 Sources of Information

Information used in the production of this report was derived from the following surveys:

- Phase 1 habitat survey (JNCC, 1993);
- incidental vascular plant species records;
- incidental invertebrate/butterfly records and assessment for likely valuable habitat;
- amphibians: assessment of habitat suitability and incidental records;
- reptiles: assessment of habitat suitability and incidental records;
- incidental bird records;
- bat survey comprising search for potential roost sites;
- badger survey comprising a search for signs of activity and setts.

Existing ecological information was obtained from the Staffordshire Ecological Record (SER) with regard to statutory and non-statutory sites and protected/notable species records within a 0.5m radius of the survey area boundary.

Survey was undertaken in late March 2016.

2 BASELINE ECOLOGICAL DESCRIPTION

2.1 General ecological context

Figure 1 shows the survey area which extends to approximately 3.3ha. It is primarily poor semi-improved grassland with small areas of marshy grassland. There are also hedgerows with trees, scattered broadleaved trees, and open running water.

The surrounding landuse is primarily urban, but with similar grassland habitat extending to the south.

2.2 Habitats

Poor semi-improved grassland

The majority of the site comprises this habitat. The sward is dominated by Yorkshire-fog, rough meadow-grass, common bent, and red fescue. There is frequent creeping buttercup, meadow buttercup, and broadleaved dock.

Marshy grassland

This occurs patchily and primarily along the eastern border and in the south east corner of the site. It is dominated by tufted hair-grass, creeping bent, creeping buttercup, and soft-rush.

Hedge with trees

These are tall/overgrown and defunct as stock-proof boundaries throughout. Frequent/locally frequent shrub species include holly, hawthorn, elder and blackthorn. Along the south-western boundary the frequent trees are birch and oak, elsewhere they are primarily alder and ash. Many of these trees (along with the scattered broadleaved trees) have moderate potential for roosting bats.

Open running water

What is essentially a small ditch dissects the westernmost field. At the time of survey there was little flow and it was vegetated with a sweet-grass, soft-rush, and brooklime.

Scattered broadleaved trees

Near the centre of the westernmost field there is a mature pedunculate oak, and beyond the end of the hedge at the north-western end of the southernmost field there is a further mature pedunculate oak and an over-mature silver birch. These are all considered to have moderate potential for roosting bats.

Figure 1 – Aerial Photo of the Survey Area (in red)



Photos



Photo 1 – From the north-eastern corner of the westernmost field looking south, showing poor semi-improved grassland and one of the scattered broadleaved trees



Photo 2 – From the north-eastern corner of the westernmost field looking west, showing northern boundary hedge, poor semi-improved grassland and one of the scattered broadleaved trees.



Photo 3 – From the north-eastern corner of the westernmost field looking south-east, showing poor semi-improved grassland and hedge with trees.



Photo 4 – From the northernmost corner of the survey area looking south, showing poor semi-improved grassland and eastern boundary.



Photo 5 – From the northernmost corner of the survey area looking west, showing poor semi-improved grassland and northern boundary.

Photos (cont.)



Photo 6 - From midway along the south-western boundary looking east, showing hedge with trees, poor semi-improved grassland and scattered broadleaved trees.



Photo 7 - From midway along the south-western boundary looking south-east, showing eastern boundary (hedge with trees), poor semi-improved grassland and scattered broadleaved trees.



Photo 8 – From midway along the south-western boundary looking north-east, showing eastern boundary (hedge with trees) and poor semi-improved grassland



Photo 9 – From the southern corner looking north-west, showing poor semi-improved grassland and hedge with trees (western boundary).



Photo 10 – From the southern corner looking north, showing poor semi-improved grassland and eastern boundary.

2.3 Species (including existing protected/notable species records from SER, see appendix 2)

Vascular plants

No notable vascular plants were recorded within the survey area. Jacob's-ladder has been recorded within 0.5km of the application boundary.

Invertebrates

No notable invertebrates were recorded within the survey area. Records exist within 0.5km of the application boundary for Haworth's minor and Heath rustic moths. The hedges onsite are considered to potentially provide high quality invertebrate habitat.

Amphibians

There are no permanent waterbodies on site, or visible on OS base maps and online aerial photos within 250m of the survey area boundary. No amphibians were found incidentally as part of the habitat survey. No historical records exist within 0.5km of the application boundary.

Reptiles

Records exist for common lizard (from 1942) and grass snake (from 1997) within 0.5km of the application boundary. However the vast majority of the habitats present are considered to be poorly suited to reptile use, being either shady or lacking in the complex structure preferred by reptiles.

Birds

Wood pigeon, chaffinch, carrion crow and robin were recorded incidentally within the application area and are considered as possibly breeding. There are existing records for several bird species within 0.5km of the application area boundary.

Bats

Several of the trees present are considered to have moderate potential to support bat roosts. Common and soprano pipistrelle and brown long-eared bat have been recorded within 0.5km of the boundary of the survey area. Given the habitats present within and adjacent to the site, it is considered possible that bats may use trees on the site for roosting as well as commuting and foraging along the hedges.

Badger

There are existing records for badger within 0.5km of the survey area boundary, including setts. However no setts or other signs of badger activity were recorded within the site.

2.4 Statutory, non-statutory and other sites of nature conservation value in the locality

According to the Staffordshire Ecological Record there are no statutory sites designated for their nature conservation value within 1km of the survey area boundary.

There are four non-statutory designations within 1km of the survey area boundary: two sites of biological importance and two biodiversity alert sites. See Appendix 1 for details.

3 EVALUATION

3.1 Method for evaluation of features

This habitat and species evaluation essentially follows the Institute of Ecology and Environmental Management (IEEM) guidelines for Ecological Impact Assessment (IEEM, 2006).

The value or potential value of each feature identified is evaluated according to its importance in a geographical context, as follows:

- International;
- National;
- County (Staffordshire);
- Site (the site or a larger area if impacts extend further for certain features);

or

- Of negligible value/importance.

The IEEM guidelines suggest that value assigned to a feature should be a matter of professional judgement based on available guidance and information, which can include the following:

- existing designations;
- biodiversity value (including rare species, the habitats that support rare species, notably large or diverse species populations, habitat extent and diversity, priority habitats and ancient woodlands).

(see IEEM, 2006 for more detail).

Note that the IEEM guidelines state: "The purpose of HAPs is to guide conservation action for the habitats concerned. That a HAP has been prepared should simply reflect the fact that the habitat concerned is in a sub-optimal state (and hence that action is required). It does not imply - and was never intended to imply - any specific level of value for the habitat. The value of any area of habitat covered by a HAP should therefore be determined on the basis of its intrinsic characteristics using the same approach as with other habitats."

Individual species that are protected under European or National legislation are evaluated as above, but with the additional consideration of legal obligations.

3.2 Habitats

None of the survey area appears to be shown on the map of UKBAP priority habitats (<http://www.natureonthemap.org.uk>, accessed March 2016). However, the hedgerow habitat is considered likely to be an example of UKBAP and/or Staffordshire BAP habitat.

3.4 Species

Vascular plants

No notable vascular plants were recorded on site. As the only notable vascular plant recorded in the locality is Jacob's-ladder and the habitat on site is not suited to this species, the survey area is considered to be of negligible value for vascular plant species.

Invertebrates

Within the survey area, no invertebrate species notable in a national or county context are known, or considered likely to occur (based on survey and habitat requirements for existing records). Both moth species present in existing records require moorland habitat (as per <http://www.ukmoths.org.uk/species/xestia-agathina> and <http://www.ukmoths.org.uk/species/celaena-haworthii/>, accessed March 2016.).

The hedges may support a reasonably high diversity of common invertebrates and so possibly of note in a site context.

Amphibians

No amphibians were recorded by the survey and there are no existing records for this species group. Given this, the survey area is considered to be of negligible value for this species group.

Reptiles

No significant extent of suitable habitat for this species group is present within the survey area and there are few existing records for the locality. Given this, the survey area is considered to be of negligible value for this species group.

Birds

None of the birds recorded within the survey area are notable. Five notable bird species have been recorded in the locality (as detailed in Appendix 2). The site is considered poorly suited to use by any of these notable species and is therefore highly likely to be of negligible value to them.

The diversity and numbers of birds recorded within the survey area (or considered likely to be present) are not considered to be of note.

Consequently, the survey area is considered highly likely to be of negligible value for this species group as a whole.

However, active nests of most wild birds are protected from damage and destruction under the Wildlife and Countryside Act 1981 (as amended). See appendix 2.

Bats

Given the presence of potential bat roosts and the likely use for bat foraging, the application area is considered to be of some nature conservation value for this species group, probably in a site context.

All bat species and their places of rest are strictly protected. See appendix 2 for details.

Badger

Given the lack of any signs for this species, the survey area is considered to be of negligible nature conservation value for badger.

3.5 Statutory, non-statutory and protected/notable species in the locality

As well as the species records considered above, a few further protected and notable species have been recorded previously in the vicinity of the site. However, given the habitats present and the surveys undertaken, it is considered highly unlikely that these species occur within the survey area, and/or that the survey area is of significant value for any of these species.

3.6 Evaluation summary

Within the survey area the following features are considered to be of value in a site context:

- hedgerows (including as invertebrate habitat, bat commuting routes and as wildlife corridors)
- trees with potential to support bat roosts
- open running water

There are also legal obligations with regard to nesting wild birds (active nests) and bats.

4 SUGGESTED MITIGATION, COMPENSATION AND ENHANCEMENT

This section suggests measures to mitigate or compensate for any likely significant impacts on features identified in section 3 as being of nature conservation value.

i) Hedgerows (including potential for bat roosts and wildlife corridors)

As much of these hedgerows as feasible should be retained on site. Any part of the hedgerow removed should ideally be compensated for by planting equivalent or greater lengths elsewhere on site. The planting mix should be species rich and comprise site-natives (of local provenance, wherever possible). In addition, any development should minimise light spill into the hedgerows so as not to adversely affect their use as foraging and commuting routes by bats.

ii) Trees with potential to support bat roosts (scattered on site and within hedges)

These should be retained on site wherever possible. If any are to be felled or lopped, they will require survey for bat use before any planning application is submitted.

iii) Open running water

This should be retained without any, or with minimal, culverting.

iv) Legal obligations

There are legal obligations with regard to nesting wild birds (active nests) and bats. See Appendix 2 for details.

v) Enhancements

This could include wetlands, ponds, refuges for reptiles and 'hedgehog-friendly' fencing and domes.

5 REFERENCES & BIBLIOGRAPHY

Bat Conservation Trust, 2012. Bat Surveys – Good Practice Guidelines, 2nd ed. BCT.

DTI , 2000: Guidance on the methodology for multi-modal studies. Originally available at: www.dft.gov.uk/itwp/mms/index.htm but no longer at this URL.

Eaton MA, Brown AF, Noble DG, Musgrove AJ, Hearn R, Aebischer NJ, Gibbons DW, Evans A and Gregory RD (2009): Birds of Conservation Concern 3: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man. British Birds 102

English Nature, 2001. Great Crested Newt Mitigation Guidelines. EN

Gent A H, Gibson S D (eds), 2003: Herpetofauna Workers Manual. JNCC.

Gilbert G, Gibbons DW and Evans J, 1998: Bird Monitoring Methods. RSPB

JNCC, 1993: Handbook for Phase 1 Habitat Survey – a technique for Environmental Audit. JNCC.

Nature Conservancy Council, 1989: Guidelines for Selection of Biological SSSI's. NCC.

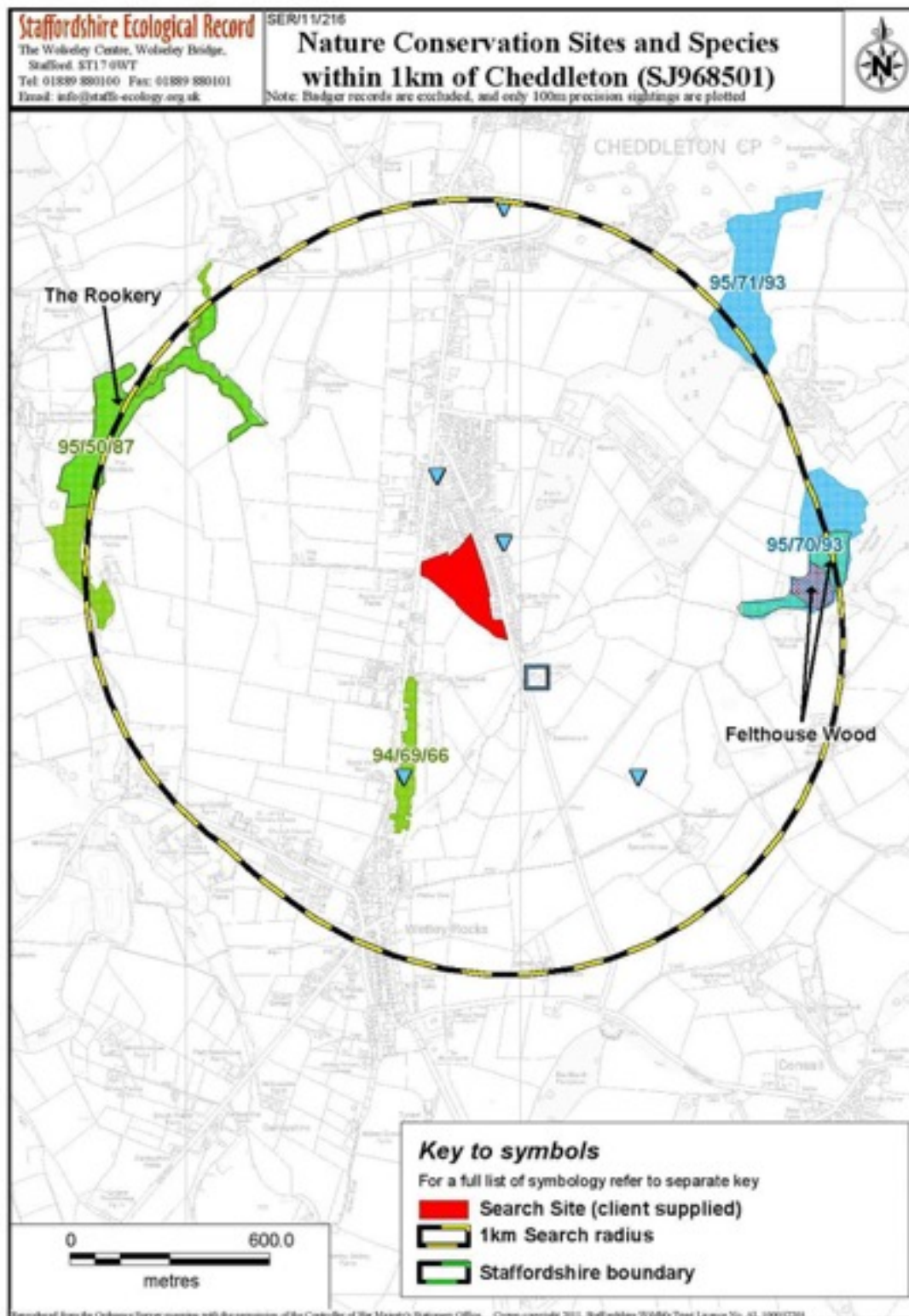
Preston CD, Pearman DA and Dines TD, 2002: New Atlas of the British and Irish Flora. Oxford University Press.

APPENDIX 1 – EXISTING RECORDS FROM STAFFORDSHIRE ECOLOGICAL RECORD (summary only)

Wtf is
this?!

Species	Common Name	Date	NGR
<i>Anser brachyrhynchus</i>	Pink-footed Goose	06/02/2010	SJ9649
<i>Saxicola rubetra</i>	Whinchat	21/04/2005	SJ9649
<i>Tyto alba</i>	Barn Owl	18/07/2008	SJ9649
<i>Vanellus vanellus</i>	Northern Lapwing	16/07/2000	SJ974497
<i>Polemonium caeruleum</i>	Jacob's-ladder	2000	SJ97114953
<i>Celanena haworthii</i>	Haworth's Minor	1920	SJ9649
<i>Xestia agathina</i>	Heath Rustic	1994	SJ9649
<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	01/07/2006	SJ966495
<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	25/08/2005	SJ973495
<i>Plecotus auritus</i>	Brown Long-eared Bat	14/11/1996	SJ967504
<i>Erinaceus europaeus</i>	West European Hedgehog	2010	SJ965491
<i>Lepu europaeus</i>	Brown Hare	23/03/2009	SJ961493
<i>Natrix natrix</i>	Grass Snake	11/08/1997	SJ970498
<i>Zootoca vivipara</i>	Common Lizard	03/08/1942	SJ9649
<i>Ciconia ciconia</i>	White Stork		SJ9649
<i>Meles meles</i>	Eurasian Badger		SJ9650

APPENDIX 1 (cont.). – EXISTING RECORDS FROM STAFFORDSHIRE ECOLOGICAL RECORD: Map of Nature Conservation Sites and Species within 1km of the survey area



APPENDIX 1 (cont.). – EXISTING RECORDS FROM STAFFORDSHIRE ECOLOGICAL RECORD: Legend for Map of Nature Conservation Sites and Species within 1km of the survey area



Appendix 2 - Extracts from guidance documents pertaining to protected species

European Protected Species (great crested newt, bats and otter)

The key pieces of legislation pertaining to these species are the Conservation of Habitats and Species (Amendment) Regulations, 2012 and the Wildlife and Countryside Act, 1981 (as amended).

The following includes extracts of guidance produced by Natural England (http://www.naturalengland.org.uk/Images/WML-G12_tcm6-4116.pdf). However, note that this guidance: “...provides an introduction to the subject and is not to be used as a substitute for professional, ecological or legal advice on individual cases. This guide aims to inform people involved in activities on land **in England**, where European Protected Species are likely to be present, about the legal protection afforded to these plants and animals. Finding European Protected Species on a site at a late stage of a project could result in delays whilst a licence is sought or in offences being committed. An understanding of the legislation, the licensing process and ideal procedures at the initial stages of a proposal will help ensure that you avoid delays and that the nature conservation considerations are fully addressed.”

3. Law - Protection of European Protected Species (EPS)*

The species listed at Section 2 are protected under the Conservation of Habitats and Species Regulations 2010 which implements the EC Directive 92/43/EEC in the United Kingdom. It is an offence, with certain exceptions, to:

- deliberately capture or kill any **wild animal of a EPS**;
- deliberately disturb any such animal;
- deliberately take or destroy eggs of any such wild animal;
- damage or destroy a breeding site or resting place of such a wild animal;
- deliberately pick, collect, cut, uproot or destroy **a wild plant of a EPS**;
- keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal or plant of a EPS, or any part of, or anything derived from such a wild animal or plant.

A person found guilty of an offence is liable on summary conviction to imprisonment for a term not exceeding six months or to a fine not exceeding level 5 (currently £5,000 per offence) on the standard scale, or to both.

* However, it should be noted that these species are also protected under the 1981 Wildlife and Countryside Act (as amended). Under this Act it is an offence, with certain exceptions to:

- intentionally kill, injure or take these species;
- intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by these species;
- intentionally or recklessly or disturb these species while they are occupying a structure or place used for shelter or protection.

Appendix 2 - Extracts from guidance documents pertaining to protected species (cont.)

5. Natural England – What We Do

Natural England has several roles to play in the protection of EPS:

We provide advice and guidance to local planning authorities considering planning applications partly through standing advice <http://www.naturalengland.org.uk/ourwork/planningtransportlocalgov/spatialplanning/standingadvice/default.aspx> and partly through individual responses. For EPS individual responses will usually be provided for proposed developments that are likely to require mitigation. The most straightforward cases are dealt with by our **central casework hub**. For more complex cases, our **Land Use** team will provide advice. They also assist planning authorities by working proactively to ensure that EPS are considered when producing development/framework plans. However, the local Land Use team will not assess the planning application in relation to the licensing tests.

Natural England also publishes species advice and guidance such as Mitigation Guidelines and informative leaflets which are available from our website - www.naturalengland.org.uk/conservation/wildlife-management-licensing.

Our **Landscape and Biodiversity Team** also undertakes and commissions specific research to improve our understanding of EPS mitigation and further develop our guidance.

Our **wildlife management and licensing role** is carried out by our national **Regulation Delivery team's** EPS Advisers based in Bristol plus regionally located Wildlife Advisers. The team assesses all licence applications for England for a range of species, including EPS, under various pieces of wildlife legislation. Wildlife Advisers also conduct compliance visits in relation to licences that we issue. Natural England enforces licence conditions including, where appropriate, legal action. Wildlife Licensing within our **Customer Services** team in Bristol receives and processes licence applications, and issues decisions made on applications.

5.1 Wildlife Licensing – What We Do Not Do

We do not:

- Provide advice or licences outside of England
- Complete application forms or prepare mitigation schemes on behalf of developers or their consultants
- Approve or “sign off” Method Statements for non-licensable works
- Review or agree application documents prior to submission
- Carry out practical work required under any licence. This is the responsibility of the licensee and any staff or consultants that they employ.
- Tell developers or consultants when a licence would or would not be required.

6. Licensing - The Criteria

Licences derogating from the protection afforded to EPS can be granted for a number of specified reasons or **purposes** as set out in Regulation 44 of the above named legislation. These purposes are listed below - the main purpose subject to this guidance note is emboldened -

- (a) scientific or education;
- (b) ringing or marking, or examining any ring or mark on, wild animals;
- (c) conserving wild animals or wild plants or introducing them to particular areas;
- (d) protecting any zoological or botanical collection;
- (e) preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;**
- (f) preventing the spread of disease;
- (g) preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber or any other forms of property or to fisheries.

Appendix 2 - Extracts from guidance documents pertaining to protected species (cont.)

Licences can only be issued by Natural England where the proposed activity meets the criteria for one of the purposes above **and** the following two criteria (together commonly referred to as the 'three tests'):

that there is no satisfactory alternative; and

that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

7. Licences – Types of Licence

7.1. 'Mitigation' licences

(Purpose (e) in Section 6 above)

This guide focuses on licensing activities that involve mitigation (and/or compensation) for the impacts of activities such as development. Mitigation licences, previously and more generally referred to as development licences¹, are considered under the purpose for preserving public health or public safety or imperative reasons of overriding public interest (see above). Such activities will range in scale and complexity.

- **Large scale** activities. Examples are the construction of new roads, schools, hospitals, business parks, housing estates, pipelines and mineral extraction.

- **Medium scale** activities. Examples are barn conversions, small local housing schemes, conversion of redundant buildings and local infrastructure such as drainage schemes.

- **Smaller scale** activities. Examples are loft extensions, repairs/maintenance to buildings including dwelling houses, boreholes, archaeological investigations and the felling of unsafe urban trees.

The above list is not exhaustive but merely aims to give an illustration of the most commonly licensed activities which fall within the scope of the above purpose. It should also be noted that 'large scale' activities do not necessarily equate to high impacts on EPS and vice versa.

8. When To Apply for a Mitigation Licence.

Your consultant ecologist will advise you on the likelihood of the proposed activity resulting in a breach of the legislation and how to take avoidance measures. The ultimate decision on whether to apply for a licence or not will rest with you, as the person responsible for commissioning the proposed activity, by taking into account the advice of the consultant ecologist. Adequate surveys carried out at the right time of year are crucial in ensuring that the presence of EPS is detected – see Section 7.2 above and Annex A.

Natural England's view is that:

- a licence **is** needed if the consultant ecologist, on the basis of survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity **is reasonably likely** to result in an offence under Regulation 41 (animals) or 45 (plants); or
- if the consultant ecologist, on the basis of survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is **reasonably unlikely** to result in an offence under regulation 41 or 45 then no licence is required. However, in these circumstances Natural England would urge that reasonable precautions be taken to avoid affecting EPS during works. If EPS are found then work should cease until you have assessed (in consultation with a consultant ecologist) whether you can proceed without committing an offence. A licence should be applied for if offences are unavoidable and the work should not be re-started until a licence is obtained.

Wild Birds

Originally from RSPB website: <http://www.rspb.org.uk/policy/wildbirdslaw/birdsandlaw/wca/index.asp>
though no longer at this URL. See also http://www.rspb.org.uk/Images/WBATL_tcm9-132998.pdf

Basic protection

All birds, their nests and eggs are protected by law and it is thus an offence, with certain exceptions (see *Exceptions*), to:

- intentionally kill, injure or take any wild bird
- intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built
- intentionally take or destroy the egg of any wild bird
- have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act or the Protection of Birds Act 1954
- have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act or the Protection of Birds Act 1954
- use traps or similar items to kill, injure or take wild birds
- have in one's possession or control any bird of a species occurring on Schedule 4 of the Act unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations (see *Schedules*)
- intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

Exceptions

There are some exceptions to the offences created by the Wildlife and Countryside Act, the most notable of which are:

- an authorised person (eg a landowner or occupier) may kill or take, in certain situations and by certain methods, so called 'pest species' and destroy or take the nest or eggs of such a bird. This is permissible under the terms of General Licences issued by government departments (see *Licences*).
- it is not illegal to destroy a nest, egg or bird if it can be shown that the act was the incidental result of a lawful operation which could not reasonably have been avoided.
- a person may kill or injure a wild bird, other than one included on Schedule 1, if they can show, subject to a number of specific conditions, that their action was necessary to preserve public health or air safety, prevent spread of disease, or prevent serious damage to livestock, crops, vegetables, fruit, growing timber, or fisheries (contact Defra for more information).
- a person may take or kill (or injure in attempting to kill) a bird listed on Schedule 2, Part I, outside the close season (see *Schedules*).
- a person may take a wild bird if the bird has been injured other than by their own hand and their sole purpose is to tend it and then release it when no longer disabled. These provisions enable people to care for sick, injured or orphaned birds. Additionally, a wild bird may be killed if it is so seriously disabled as to be beyond recovery. Sick and injured birds listed on Schedule 4 should be registered with Defra.