GOLD PLACE, WETLEY ROCKS, STAFFORDSHIRE

ECOLOGICAL SCOPING AND GREAT CRESTED NEWT SURVEY

Prepared for
PME Planning Services

May 2011

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Prepared by

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1. INTRODUCTION

1.1 This report presents the results of an ecological scoping survey and great crested newt *Triturus cristatus* surveys undertaken at Gold Place in Wetley Rocks, Staffordshire by Apex Ecology Limited. The report is based on field surveys that were carried out during September 2010 and March and April 2011.

1.2 The project was undertaken for PME Planning Services on behalf of the owner of the site. The proposal is to develop the site for affordable housing and an application has been submitted to Staffordshire Moorlands District Council for the proposals.

1.3 Bats and great crested newts are legally protected under European and domestic legislation. Bats and great crested newts are a material consideration during determination of planning applications. A summary of the key legislation protecting these species is provided in Appendix I.

1.4 The site consists of a roughly rectangular block of land, approximately 50m by 65m in extent, with an access route leading westwards from Randles Lane. The northern and western parts of the site comprise of poor semi-improved grassland. A series of modern agricultural buildings and hard standing dominate the eastern part of the site. A pond lies 15m west of the site boundary in an adjacent field.

1.5 The site is located on the southern edge of the village of Wetley Rocks at OS grid reference SJ 966 487. The site is surrounded by farmland consisting of pastures and meadows bordered by hedgerows, with residential houses to the immediate east and northeast. The nearest woodlands include those in the vicinity of Cecily Haughton School 900m to the northwest and those associated with the Churnet Valley, such as Consall Woods 1.5km to the east.

1.6 The report describes the methods used for the surveys and any constraints encountered, along with the results of the surveys, including a description of the habitats and buildings present and any evidence of protected species found. The results of the great crested newt survey are also presented. It then provides an assessment of the suitability of the habitats for use by protected species and interprets the findings in light of the proposals, making recommendations where necessary.

2. METHODOLOGY

Survey Methods

2.1 An ecological scoping survey was undertaken on the 1st September 2010. This was followed by surveys of the pond located just off site for great crested newts during March and April 2011. The surveys were undertaken by Helen Ball and Max Robinson.

Ecological Scoping Survey

2.2 The scoping survey was based on the Extended Phase 1 Habitat Survey methodology as recommended in the IEA publication *Guidelines for Baseline Ecological Assessment* (IEA, 1995) and follows the methods set out in *The Handbook for Phase 1 Habitat Survey* (Nature Conservancy Council (JNCC, 2004).

2.3 The site (outlined in red in Figure 1) was walked over and the habitats were described and mapped, with notes made on important and pertinent features such as the suitability of a structure for use by a protected species or presence of a notable tree or invasive plant species[1]. A list of plant species for key areas was compiled using the DAFOR[2] scale and a record of any faunal species encountered incidentally during the survey was taken.

Assessment of Buildings for Use by Bats and Birds

2.4 During the survey, an assessment of the buildings in terms of their suitability to support bats and nesting birds, including barn owls *Tyto alba* was made. A number of factors were considered, including internal conditions, presence of features suitable for use by crevice dwelling and free hanging bats. For barn owl, an assessment of the availability of access points and ledges that would be suitable for nesting was made. The proximity of the buildings to foraging habitats/cover, along with potential for disturbance was also considered.

2.5 A description of the buildings was made and they were assigned to high, medium or low grade according to the assessed potential to support bats, as follows:

- Bat roost – evidence of use by bats present. Works affecting the roost would need to be undertaken under a statutory licence from Natural England, with precautionary and mitigation measures implemented as specified by the licence.

- High Potential – building exhibiting one or more features very suitable for roosting bats (such as a gaps between tiles and underfelt, significant crevices within the walls). Further survey (such evening emergence surveys) would need

[1] A number of non-native invasive plant species are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). Due to difficulties in identifying some of these plants to species, especially during the winter months, the survey cannot be taken as a comprehensive assessment for the presence of these species.

[2] This relates to the occurrence of each species on site i.e. d = dominant; a = abundant; f = frequent; o = occasional; r = rare

to be undertaken to establish use by bats and, if confirmed, the type of roost and number of bats present, etc. If no roost is identified, precautionary measures would need to be implemented during works to the building.

- Moderate Potential – building exhibiting features less suitable for roosting bats (such as superficial gaps within walls, limited areas of tiles or generally well-sealed tiling). No further survey required; however, precautionary measures needed during works to building, such as hand stripping of tiles.

- Low Potential – building exhibiting features very unlikely to be used for roosting or no features suitable for roosting. In practice, such buildings may have negligible roosting potential. No further action required.

Search for Ponds and Great Crested Newt Survey

2.6 During the ecological scoping survey, the pond lying off-site to the west in the adjacent field was assessed as being suitable for great crested newts to use for breeding. In accordance with Natural England guidelines, a desk-based search was made for other ponds lying within 250m of the site in order to inform the extent of great crested newt surveys required. The OS Explorer map of the area, Google Earth and the MAGIC (Multi Agency Geographic Information for the Countryside) website were all searched for the presence of ponds within 250m of the site. Coupled with this, a site visit to confirm the status of some of the ponds identified as falling within 250m of the site was undertaken during December 2010 (the site visit was undertaken by Allen Newby of PME Planning Services).

2.7 Following completion of the desk study, it was considered necessary to survey only the pond lying close to the site in the adjacent field to the west. The pond was surveyed for the presence of great crested newts and other amphibian species using bottle traps, nocturnal torchlight searches and egg-searching. The methods followed those recommended in the *Great Crested Newt Mitigation Guidelines* (English Nature 2001).

2.8 The pond was surveyed on four separate occasions within the standard survey period running from mid-March to mid-June, with two of the surveys undertaken within the core surveying period between mid-April and mid-May. The surveys were undertaken on the following dates:

24th and 25th March 2011
5th and 6th April 2011
18th and 19th April 2011
27th and 28th April 2011

Bottle Trapping

2.9 Bottle traps were set in the water around the margins of the pond during the evening and checked the following morning. The type of bottle traps used allows air breathing by amphibians. The traps were checked within 17 hours of setting. The submerged bottle traps were held firmly in place with a cane inserted into the substrate to prevent tilting of the bottles and loss of air. The traps were set at 1.5

to 2m intervals around the margin of the pond. Following the identification and counting of any captured newts and other amphibians they were released back into the water.

Torchlight Counting

2.10 At night the bank-sides of the pond were slowly walked around and the pond scanned with a powerful torch. The 'score' was expressed as the total number of great crested newts observed during a circuit of the pond (Gent and Gibson, 1998). This method is less useful in turbid water or during rainy or windy conditions.

Egg Searching

2.11 Newt eggs were searched for on submerged or floating aquatic vegetation growing within the pond. Any vegetation folded over was checked for newt eggs. If great crested newt eggs had been recorded the search would have been ceased so as to not destroy or uncover further great crested newt eggs.

Weather Conditions

2.12 Table 2 provides details on the weather conditions on each survey date. The conditions were considered suitable for the purposes of great crested newt surveys.

Constraints to the Surveys

2.13 The survey was undertaken at an optimal time of year to record plants, although spring-flowering species will have been under-recorded.

3. SURVEY FINDINGS & INTERPRETATION

Survey Findings

3.1 The site comprises of poor semi-improved grassland, tall herbs and hard standing and contains a cluster of modern agricultural sheds in the south eastern corner. The buildings are suitable to be used by birds for nesting, but hold limited potential to be used by bats for roosting. No great crested newts were found during surveys of the pond.

3.2 Figure 1 shows the extent of the survey area and the locations of the habitats described below. A list of plants recorded during the survey is given in Table 1. Table 2 provides the results of the surveys for great crested newts and Plates I-VI illustrate the key site features.

Ecological Scoping Survey

3.3 The western and northern parts of the site, making up about half the total site area, support poor semi-improved grassland with areas of bare and poached ground and tall herbs (mainly common nettle). The plant species present are characteristic of soil with a high nutrient status and tolerant of disturbance and include perennial rye-grass, creeping buttercup, groundsel, broad-leaved plantain, white clover and knotgrass. Common sorrel, ribwort plantain and red clover occur rarely. During the scoping survey in September the ground was very wet and patches of marsh foxtail and soft rush were found to be present.

3.4 At the time of the survey, much of the grassland, particularly adjacent to the farm buildings was used to store farm machinery and silage bales, as well as a large amount of stored materials including corrugated sheeting, bricks, wood and concrete. By the time the great crested newt surveys took place, much of this stored material had been removed.

3.5 The grassland is bordered by dry-stone walls along the northern and southern boundaries and a barbed wire fence along the western boundary. A short hedge containing approximately five extremely tall leyland cypress is also present in the centre of the site close to the buildings, and a small number of Scot's pine and a clipped Leyland cypress hedge front Randles Lane.

3.6 The pond lying just off-site is approximately 8m by 10m in extent. It is roughly circular and contains a small island in the centre densely covered by soft rush. The water is relatively shallow (less than 300mm-500mm estimated) but with a deep layer of silt below. The banks of the pond are steep and are dominated by soft rush and common nettles, with marsh foxtail forming rafts of floating vegetation on the pond surface. Great willowherb and cuckooflower also occur occasionally. The pond receives no shading and during the scoping survey in September the entire surface of the pond was covered in duckweed. A mallard *Anas platyrhynchos* were recorded using the pond during some of the survey visits.

Assessment of Buildings for Use by Bats and Birds

3.7 There are three large, modern agricultural buildings located in the south-eastern corner of the site. Two of these have brick bases with wooden slats and corrugated metal upper walls, along with pitched roofs clad in corrugated metal and supported by metal trusses. The other building is built from corrugated metal and is lower in height, although all the buildings are single-storey. The buildings are open on one side and are used to house livestock and store farm machinery and equipment, with large piles of stored materials present in places.

3.8 The buildings hold very low potential to be used by bats for roosting due to the fabric and nature of their construction. House sparrow *Passer domesticus*, wren *Troglodytes troglodytes* and pied wagtail *Motacilla alba* were recorded as entering the buildings during the surveys and house sparrows were singing from the site and neighbouring buildings throughout the surveys during March and April 2011. The buildings are likely used by these species for foraging, and possibly for nesting. The buildings are unlikely to be used by barn owls.

Search for Ponds and Great Crested Newt Survey

3.9 Only the pond lying immediately off-site to the west was surveyed for great crested newts. The only other pond found to lie within 250m of the site is located 235m to the northeast on the opposite side of the A522 Cheadle Road, a feature that likely acts as a barrier to newt movement, and it was not considered necessary to survey this pond. The other possible ponds identified as lying within 250m of the site were shown to not exist on the ground (i.e. they proved to be raised middens or circular poaching marks indicating the presence of ring feeders).

3.10 No great crested newts were recorded during the surveys of the pond. Other species of amphibians were recorded during the survey, including common frogs *Rana temporaria*, common toads *Bufo bufo* and smooth newts *Lissotriton vulgaris.* The detailed survey results are given in Table 2.

3.11 The highest count of smooth newts recorded was four adults during the survey on the 6th April; these were caught in bottle traps. Adults and tadpoles of both common frogs and common toads were found during the survey confirming that these species use the pond for breeding.

<u>Assessment of Site and Potential for Protected Species</u>

3.12 The habitats on site are species-poor and dominated by widespread and abundant plant species and have low ecological value.

3.13 The Leyland cypress hedge and modern agricultural buildings hold potential to be used by birds for nesting, although this is limited in extent. The buildings offer no opportunities for bats to use for roosting and are considered to hold low potential for use by barn owls.

3.14 No great crested newts were found using the pond, although three other species of amphibians make use of it.

4. RECOMMENDATIONS

4.1 To compensate for loss of suitable habitat that birds could use for nesting (in the form of the Leyland cypress hedge), it is recommended that a hedgerow be planted along the western boundary of the site. Species used in the hedgerow should be native and locally suitable (and preferably of local provenance). Suitable species would include hawthorn *Crataegus monogyna*, holly *Ilex aquifolium* and hazel *Corylus avellana*.

4.2 To compensate for loss of possible nesting sites associated with the buildings, it is recommended that nest boxes (such as those commercially available from Schwegler) or purpose built cavities be incorporated into the proposed new buildings as part of the development. These would need to be installed at the tops of walls close to the eaves and should not be installed facing due south. Target species would include house sparrow, pied wagtail and wren.

4.3 The presence of nesting birds can be avoided as a constraint to the proposals by timing the removal of the buildings and Leyland cypress to avoid the bird nesting season. Should these works need to be carried out during the bird nesting season then survey for birds would need to be undertaken prior to any works commencing with a watching brief carried out during work to check for the presence of nesting birds. The findings of the survey would be used to ascertain the best method to proceed to avoid impacting upon nesting birds, which should be set out via a method statement. The bird nesting season is generally deemed to run from March to July/August inclusive, although species such as barn swallows can continue nesting into September. All wild birds are given protection under the Wildlife and Countryside Act, 1981 (see Appendix 1 for further details).

4.4 It is recommended that any amphibians i.e. common frog, common toads and smooth newts located under materials, such as stones and logs during works are carefully removed and placed in dense vegetation close to the edge of the pond. If great crested newts were found, works would need to be suspended and a licensed newt ecologist contacted for advice on the best method to proceed.

5. REFERENCES

IEA. (1995). *Guidelines for Baseline Ecological Assessment*. Chapman and Hall, London.

JNCC. (1990). *Handbook for Phase 1 Habitat Survey - A technique for environmental audit.* JNCC, Peterborough.

Table 1. List of Plant Species Recorded During Survey

Common name*	Scientific name*	Grassland	Pond
American Willowherb	*Epilobium cilatum*	R	
Annual meadow grass	*Poa annua*	LF	
Broad-leaved dock	*Rumex obtusifolius*	O	
Broad-leaved plantain	*Plantago major*	F	
Cock's-foot	*Dactylis glomerata*	O	
Common chickweed	*Stellaria media*	O	
Common couch	*Elytrigia repens*	O	
Common nettle	*Urtica dioica*	O-LF	F
Common sorrel	*Rumex acetosa*	R	
Crested dog's tail	*Cynosurus cristatus*	F	
Creeping buttercup	*Ranunculus repens*	F	
Creeping thistle	*Cirsium arvense*	O	
Cuckooflower	*Cardamine pratensis*	O	
Dandelion	*Taraxacum officinale*	F	
Duckweed	*Lemna* sp.		F
Great willowherb	*Epilobium hirsutum*		O
Groundsel	*Senecio vulgaris*	R	
Italian rye-grass	*Lolium multiflorum*	O	
Knotgrass	*Polygonum arnastrum*	O	
Marsh foxtail	*Alopecurus geniculatus*	LF	F
Leyland cypress	*X Cupressocyparis leylandii*	LO	
Perennial rye-grass	*Lolium perenne*	F-A	
Pineapple weed	*Matricaria matricarioides*	R	
Red clover	*Trifolium pratense*	R	
Ribwort plantain	*Plantago lanceolata*	R	
Rough meadow-grass	*Poa trivialis*	F-A	
Scot's pine	*Pinus sylvestris*	O	
Shepherd's purse	*Capsella bursa-pastoris*	O	
Soft rush	*Juncus effusus*	O	A-LD
Tufted hairgrass	*Deschampsia cespitosa*	O	
White clover	*Trifolium repens*	F	
Yorkshire fog	*Holcus lanatus*	O	

* Nomenclature follows Stace, C. (1997) *New Flora of the British Isles.* Cambridge University Press

** DAFOR:
D - Dominant
A - Abundant
F- Frequent
v - Very
O - Occasional
R - Rare
L -Local

Table 2. Results of Amphibian Survey of the Pond at Gold Place, Wetley Rocks

Capture Results Visit 1
Survey Date: 24th and 25th March 2011

Weather Conditions:			**pm:** 13oC (water 12oC), warm, no cloud, still, sunny				**am:** 8.5oC (water 9.0oC), clear, still, warm and sunny. Ground wet with heavy dew-fall					
Waterbody	**Bottle trap captures**				**Torchlight findings**				**Netting & Egg search**			
	GCN	**SN**	**CF**	**CT**	**GCN**	**SN**	**CF**	**CT**	**GCN**	**SN**	**CF**	**CT**
Pond	0	1 x male	1	0	0	0	4 adults (1 dead) and large patch of spawn	0	0	0	0	0

Capture Results Visit 2
Survey Date: 5th and 6th April 2011

Weather Conditions:			**pm:** 14.5oC (water 11oC), breezy but mild and cloudy with spots of rain				**am:** 13.5oC (water 11oC), light breeze, sunny and mild					
Waterbody	**Bottle trap captures**				**Torchlight findings**				**Netting & Egg search**			
	GCN	**SN**	**CF**	**CT**	**GCN**	**SN**	**CF**	**CT**	**GCN**	**SN**	**CF**	**CT**
Pond	0	2x male and 2x female	1 x Tad	0	0	4	1	1	0	0	0	0

Capture Results Visit 3
Survey Date: 18th and 19th April 2011

Weather Conditions:			**pm:** 11.5oc (air and water), still, mild and dry. Cloud cover beginnign to break up				**am:** 15oC (water 14oC), warm, sunny, no cloud and very gentle breeze					
Waterbody	**Bottle trap captures**				**Torchlight findings**				**Netting & Egg search**			
	GCN	**SN**	**CF**	**CT**	**GCN**	**SN**	**CF**	**CT**	**GCN**	**SN**	**CF**	**CT**
Pond	0	1 x female	0	1x Tad	0	0	0	0	0	0	0	0

Capture Results Visit 4
Survey Date: 27th and 28th April 2011

Weather Conditions:			**pm:** 9oC (water 10oC), cool, still, dry				**am:** 10oC (water 13oC), sunny, dry, cool breeze and no cloud					
Waterbody	**Bottle trap captures**				**Torchlight findings**				**Netting & Egg search**			
	GCN	**SN**	**CF**	**CT**	**GCN**	**SN**	**CF**	**CT**	**GCN**	**SN**	**CF**	**CT**
Pond	0	0	0	0	0	0	0	0	0	0	0	0

RevNo	Revision note	Date	Signature	Che

Braemar

Park View

Path (um)

East Leigh

RANDLES LANE

Crossfields

The Hollies

Glendale

New galow

Gold Place

High Croft

CW

Muddy access track

Pond

Subject to surveys for great crested newt

Burnside Cottage

Windy Ridge Cottage

CR

Figure 1. Plan Showing Location of Habitats

- Coniferous trees
- Fencing
- Tall herb
- Poor semi-improved grassland
- Site boundary
- Building
- Pond

Revision Notes:
Rev A- Rev B. Change to site area

KEY
- Site Boundary
- Development Plan Boundary
- Tree Number, Canopy & RPA
- Hedge

Itemref	Quantity	Title/Name, designation, material, dimension etc			Article No./Reference	
Designed by A W Newby		Checked by B Goldstraw	Approved by - date B Goldstraw 22/09/2010	File name Ex Block.dwg	Date 03/05/2011	Scale 1:500

PME Planning Services

Existing Block Plan

2

Edition Rev A

Sheet 1/1

PLATES

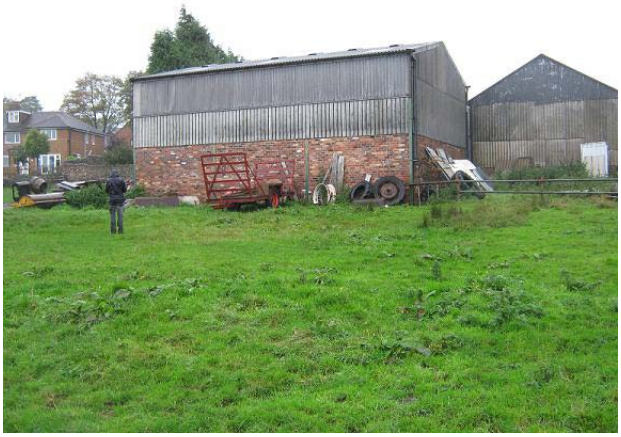

Plate I. Grassland and Buildings

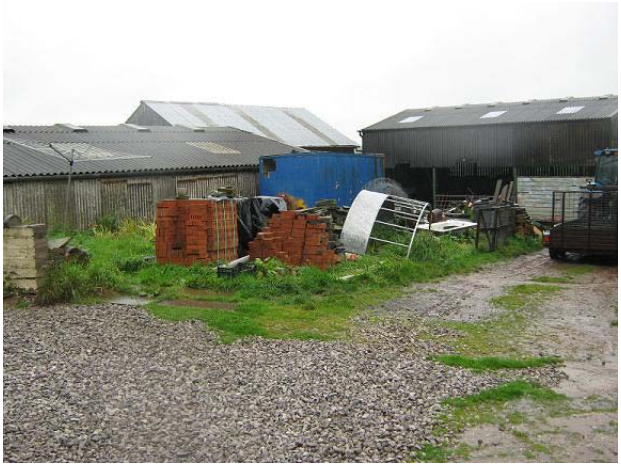

Plate II. Buildings and hard standing

Plate III. Leyland cypress hedge

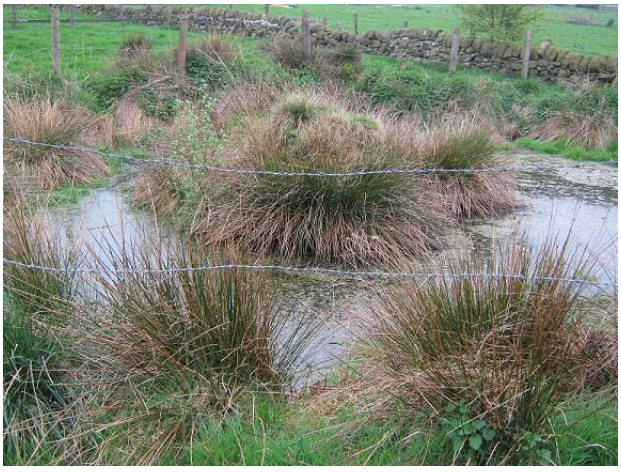

Plate IV. Pond

APPENDIX I - LEGISLATION RELATING TO PROTECTED SPECIES DISCUSSED IN THE REPORT

The information below is intended only as guidance to the legislation relating to these species in England. The legislative documents themselves should be referred to for the correct legal wording.

Bats

There are seventeen different species of bat in the UK; some are very rare whilst others are widespread. However, because the populations of most species have declined in past decades, all British bats have been protected by law.

Bats are protected in England and Wales under European Legislation via the Conservation (Natural Habitats and Wild Flora and Fauna (92/43/EEC)) or 'The Habitats Directive'. The Directive is transposed into UK law via the Conservation of Habitats and Species Regulations 2010 (Statutory Instrument 2010/0490 known as the Habitats Regulations), which came into force on the 1st April 2010. The Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") consolidate and update the Conservation (Natural Habitats, &c.) Regulations 1994 (Statutory Instrument 1994/2716) and amendments. Due to their inclusion on Schedule 2 of the Habitats Regulations, bats are considered 'European Protected Species'.

In summary, this legislation makes it an offence to:

- deliberately capture, injure or kill a bat;
- deliberately disturb a bat;
- damage or destroy a breeding site or resting place of any bat;
- possess a bat (alive or dead) or any part of a bat.

Disturbance of bats includes in particular any disturbance which is likely:

(a) to impair their ability:

(i) to survive, to breed or reproduce, or to rear or nurture their young; or

(ii) to hibernate or migrate; or

(b) to affect the local distribution or abundance of the species to which they belong.

Bats are also protected under the Wildlife and Countryside Act 1981 (as amended), which has also been amended by the Countryside and Rights of Way (CRoW) Act, 2000.

In summary, this legislation makes it an offence to:

- intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection;
- intentionally or recklessly obstruct access to any structure or place which any bat uses for shelter or protection.

In addition, under UK's Biodiversity Action Plans seven British bat species are listed as 'Priority Species'. These include barbastelle *Barbastella barbastellus,* Bechstein's *Myotis bechsteinii,* noctule *Nyctalus noctula,* soprano pipistrelle *Pipistrellus pygmaeus,*

brown long-eared *Plecotus auritus*, greater horseshoe *Rhinolophus ferrumequinum* and lesser horseshoe *Rhinolophus hipposideros.*

Birds

All wild birds, their nests and eggs are protected by law under the Wildlife and Countryside Act 1981 (as amended). It is, therefore, an offence (subject to certain exceptions) to:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird whilst it is in use or being built;
- take or destroy the egg of any wild bird.

In addition, in accordance to amendments of the Wildlife and Countryside Act by the Countryside and Rights of Way Act 2000, it is an offence to:

- intentionally or recklessly disturb any species listed on Schedule 1 of the WCA whilst building a nest, or whilst it is on, in or near a nest containing eggs or young; and
- disturb the dependant young of a Schedule 1 bird.

For instance, barn owls are protected under Schedule 1 of the Wildlife and Countryside Act protecting them from intentional or reckless disturbance during the breeding season (which is normally considered the time from when the female makes the first nest 'scrape' and lays the first egg until the time when the last dependent young stops returning to the nest (English Nature, 2002/3)).

Great Crested Newts

Great crested newts are protected in England and Wales under European Legislation via the Conservation (Natural Habitats and Wild Flora and Fauna (92/43/EEC)) or 'The Habitats Directive'. The Directive is transposed into UK law via the Conservation of Habitats and Species Regulations 2010 (Statutory Instrument 2010/0490 known as the Habitats Regulations), which came into force on the 1st April 2010. The Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") consolidate and update the Conservation (Natural Habitats, &c.) Regulations 1994 (Statutory Instrument 1994/2716) and amendments. Due to their inclusion on Schedule 2 of the Habitats Regulations, great crested newts are considered 'European Protected Species'.

- deliberately capture, injure or kill a great crested newt;
- deliberately disturb a great crested newt;
- damage or destroy a breeding site or resting place of any great crested newt;
- possess a great crested newt (alive or dead) or any part of a great crested newt.

Disturbance of great crested newts includes in particular any disturbance which is likely:

(a) to impair their ability:

(i) to survive, to breed or reproduce, or to rear or nurture their young; or

(ii) to hibernate or migrate; or

(b) to affect the local distribution or abundance of the species to which they belong.

Great crested-newts are also protected under the Wildlife and Countryside Act 1981 (as amended), which has also been amended by the Countryside and Rights of Way (CRoW) Act, 2000.

In summary, this legislation makes it an offence to:

- intentionally or recklessly disturb a great crested-newt while it is occupying a structure or place which it uses for shelter or protection;
- intentionally or recklessly obstruct access to any structure or place which any great crested-newt uses for shelter or protection.

In addition, the great crested newts are a Priority Species within the UK Biodiversity Action Plan with a Species Action Plan aimed at maintaining the existing range and population status of the species, as well as increasing the number of populations through re-colonisation.