

Leicester, Leicestershire and Rutland

Great Crested Newt Survey Protocol

Leicestershire and Rutland Environmental Records Centre (LRERC)
November 2014

1. Background

1.1 International, national and local conservation status

The great crested newt has suffered a major decline across Britain over the last century, probably due to agricultural intensification and development causing the loss of field ponds and other habitats that support newts. A similar decline has occurred throughout Europe.

Despite the decline, great crested newts are still fairly widespread in England, and we are still considered to support a significant number of all the great crested newt ponds within Europe. Great crested newts may have found respite by colonising the new ponds that frequently develop on post-industrial land and 'brownfield' sites, many of which are known to support healthy populations of great crested newts. However these colonies are particularly vulnerable to harm as a result of re-development of these sites.

Given the great losses of ponds in the counties, it is not surprising that great crested newts, although still widely distributed across Leicestershire and Rutland, are nowhere common and are declining significantly.

1.2 The law and licensing

Because of its decline in Europe, the great crested newt is listed in Annex IV of the European Habitats and Species Directive, and both the individual newts and their habitats are fully protected by international and UK law.

In brief, it is illegal to

- intentionally kill or injure a great crested newt, at any life stage (including eggs)
- intentionally or recklessly damage, destroy or obstruct access to its habitat
- intentionally or recklessly disturb a great crested newt

Offences can carry fines of up to £5,000 per newt, or imprisonment up to six months, or both.

In some circumstances, a licence allowing exceptions to the above can be obtained from Natural England. Natural England can grant licences for the purpose of '*preserving health or public safety or other imperative reason of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance in the environment*'. A licence cannot be granted unless there is no satisfactory alternative, and the action authorised must not be detrimental to the maintenance of the population of great crested newts at a favourable conservation status in their natural range.

If disturbance or harm to great crested newts is unavoidable – i.e. there is no satisfactory alternative - mitigation must be made to ensure that the population retains its conservation status.

<https://www.gov.uk/government/publications/great-crested-newts-apply-for-a-mitigation-licence>

1.3 Great crested newts and the planning process

When making decisions on planning applications, the impact of the development on European protected species is a material consideration. Planning authorities are therefore required by law to check that a development doesn't harm or disturb great crested newts or their habitats (see ODPM Circular 06/05, paragraph 99).

For developments that could impact on great crested newts, planning authorities need information on the impacts of the development on great crested newts to be submitted **up-front** with the planning application.

Please note that great crested newt assessments cannot be the subject of a planning condition

The information required is a survey report and mitigation recommendations, carried out by a suitable qualified, licensed and experienced ecologist. The situations for when a report is needed are covered in section 2 of this protocol. The required content of the report is covered in detail in sections 3, 4 and 7 of this protocol.

2. When is a survey needed?

2.1 Great crested newt surveys are required when a pond OR connected great crested newt terrestrial habitat, up to 500m away from a pond, is likely to be impacted by a development proposal. This is because great crested newts live in ponds mainly in their springtime breeding season. For most of the rest of the year they live on land, but will disperse over a 500m radius of land around their breeding pond, if suitable habitat exists.

2.2 Impacts include:

- Infilling, draining, dredging or alterations to pond
- Changes in local hydrology or water quality that could affect water levels or water chemistry in ponds
- Changes in land management up to 500m around ponds
- Removal of or damage to good newt habitats within 500m of pond – e.g. hedges, rough grassland, mature gardens, woodland, ditches (see 2.5. below)
- Creation of barriers to newt dispersal within 500m of a pond, or loss of habitat connectivity around a pond (see 2.4 below)
- Temporary disturbance during construction
- Long-term post-development disturbance due to change in land-use
- Disturbance by people (including their dogs etc) in/near new housing developments
- . . . and anything else that could harm or disturb a newt or change the aquatic or terrestrial habitat in and within 500m of a pond.

2.3 How far from the pond does the potential impact have to be?

- **Minor developments:** all ponds within the site or a 100m zone around the proposal site boundary, unless separated from the application site by a barrier that amphibians cannot cross (see below).
- **Major developments:** all ponds within the site or a 500m zone around the proposal site boundary, unless separated from the application site by a barrier that amphibians cannot cross (see below).

(Note: A major development is one that is more than 10 dwellings or more than 0.5 hectares or for non-residential development is more than 1000m² floor area or more than 1 hectare)

2.4 What are barriers to newt movements?

- Main roads – i.e. Motorways, trunk roads, dual carriageways, and busy A roads and B roads. Lanes and smaller roads are not a barrier to dispersal, as amphibians will cross them in wet weather. Note that heavy rush-hour and daylight traffic is probably not relevant, as amphibians usually disperse after dark, but heavy night-time traffic would be a problem. Note that amphibians may use culverts to cross under wide roads, as long as the culvert has shallow slow-flowing water, or a muddy margin to the flowing water.
- Rivers and larger brooks. Amphibians generally do not like running water. However, they will inhabit slow-flowing watercourses such as backwaters and canals.
- An expanse of bare ground or hard surface, such as compacted soil, concrete or tarmac. Note that amphibians like the loose rubbly substrates and tips found on many post-industrial sites - such as broken brick, broken concrete, hardcore, etc. Amphibians will also be found under slabs.
- Arable land. Amphibians do not like open dry substrates, such as recently ploughed land. However, arable land can be used by amphibians if damp, vegetated or fallow; and amphibians will use boundary hedges, other boundary features and headlands.
- Regularly close-mown amenity grassland. However, amphibians may disperse across this habitat in damp conditions after dusk.

2.5 What are good terrestrial habitats for newts?

- Hedges
- Dry stone walls with well vegetated bases
- Ditches and culverts - dry, damp or slow-flowing. Amphibians do not like ditches with strongly flowing water.
- Rough grassland, wet grasslands, tall grass and herbs, hayfields except after cutting, grazing land unless overgrazed
- Scrub and woodland, deciduous and coniferous
- Gardens and allotments. Many of the features found in these cultivated areas are good for amphibians – rubbish heaps, compost bins, dilapidated sheds, woodpiles, slabbed areas, shrubberies, garden ponds, damp areas around water butts, etc.
- Ruderal habitats, post industrial land and rubble banks, etc.
- Railway lines. Amphibians may find heavily-used mainlines with multiple tracks to be a barrier, but most other railways have ideal bank side habitats, often with damp ditches, and the permanent way is good foraging habitat.

3. Pond surveys in the Great Crested Newt breeding season

3.1 General points:

- Whenever possible, ponds should be surveyed in the great crested newt breeding season. Table 1 below shows that the optimum survey season is March to May. If nationally accepted methodology is followed, this is the only way to be reasonably certain that newts are present or not. It will also give an estimate of population size, etc.
- One survey visit is inadequate; a series of surveys throughout the survey season will be needed (in accordance with national guidelines)
- Seasonal variation (dry spring/wet summer, cold spring etc.) needs to be taken in to account.
- The methodology approved by Natural England should be used.
- If survey methods that involve potentially trapping, handling or disturbing great crested newts are used, the surveyor MUST hold an appropriate licence from Natural England. Carrying out a survey without the licence could result in a criminal offence.
- Other species of note (e.g. Water Shrew) and other amphibians found whilst surveying should be noted as well as great crested newts.
- A clear plan showing locations of ponds surveyed should always be provided; the ponds should have names or reference numbers that are clearly linked to the survey results. To ensure that the right pond is identified, 8-figure grid references (e.g. in the format 'SK12345678') should be given for each pond surveyed. The plan should overlay an aerial photo or OS map base.
- Surrounding habitat should be assessed when the survey is carried out.

Table 1: Great Crested Newt survey times

● = optimal survey time

+ = sub-optimal survey time/depends on seasonal variation

<i>Survey method</i>	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sept</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Bottle		+	●	●	●	+	+					
Egg			+	●	●	●	+					
Torch		+	●	●	●	+	+					
Net		+	●	●	●	+	+					
Pitfall		+	●	●	●	+	+	+				
Refuge			+	●	●	●	●	●	●	+		

(ref: Great Crested Newt mitigation guidelines)

3.2 Environmental DNA (eDNA)

DNA from Great Crested Newts can persist in their pond for up to 3 weeks, and specialist laboratories are now able to test for its presence, as long as water samples are taken according to strict methodology. This may be a useful way of scoping out large numbers of ponds, or doing a simple presence/absence survey late in the season. eDNA can only be done in the Great Crested Newt breeding season, and it cannot be used to assess population size, so if GCNs are found to be present using this method and mitigation is required to allow the development, you are likely to need to do further surveys using other methods, such as torch surveys or bottle-trapping.

<http://www.freshwaterhabitats.org.uk/projects/edna/>

3.2 Submit data in this format:

Provide a clear key plan showing pond locations and group data for each pond:

Table 2: EXAMPLE DATA ONLY

<i>Pond name/ref number</i>	<i>Survey visit</i>	<i>Time</i>	<i>Weather</i>	<i>Pond central grid ref (8-fig)</i>	<i>Date of survey</i>	<i>Surveyor</i>	<i>Survey technique</i>	<i>Species</i>	<i>No. of individuals</i>	<i>Notes</i>
Pond A Manor Farm	1	18.00 to 20.00	Calm, damp, 9°C	SK12345678	07/04/11	Sue Timms	Bottle trapping	Great Crested Newt	4F, 3M	
Pond A Manor Farm	1	18.00 to 20.00	Calm, damp, 9°C	SK12345678	07/04/11	Sue Timms	Bottle trapping	Common Frog	12 J	Confirmed breeding
Pond A Manor Farm	2	17.40 to 19.00	Breezy, raining, 13°C	SK12345678	02/05/11	Sue Timms Kirsty Gamble	Bottle trapping	Great Crested Newt	6M, 3F	
Pond A Manor Farm	2	17.40 to 19.00	Breezy, raining, 13°C	SK23456789	02/05/11	Sue Timms Kirsty Gamble	Egg Search	Great Crested Newt	25 eggs	Confirmed breeding
Pond A Manor Farm	3	17.30 to 19.00	Calm, dry, 12°C	SK12345678	14/05/11	Kirsty Gamble	Bottle trapping, Egg search	Great Crested Newt	2M, 2F, + eggs	Confirmed breeding
Pond B	1	18.00 to 20.00	Calm, damp, 9°C	SK23456789	07/04/11	Sue Timms	Field Observation	Common Toad	1M	
Pond B	2	17.40 to 19.00	Breezy, raining, 13°C	SK23456789	02/05/11	Sue Timms Kirsty Gamble	Field Observation	Smooth Newt	50+ A	
Pond B	3	17.30 to 19.00	Calm, dry, 12°C	SK23456789	14/05/11	Kirsty Gamble	Field Observation	Smooth Newt	20+ A	

4. Habitat Suitability Index assessment (HSI) and Pond surveys outside the Great Crested Newt breeding season, or when access cannot be obtained

4.1 General points

- If it is not possible to carry out a suite of surveys of ponds in the breeding season, or gain direct access to ponds, it is possible to assess the likelihood that the pond will support newts. **It is not a substitute for a survey** - whenever possible ponds should always be surveyed in accordance with section 3 above.
- The only methodology LRERC accept is the **Habitat Suitability Index** assessment or **HSI** (Oldham *et al*, 2000). We recommend that you obtain a copy of the full paper, rather than just the appendices or a summary, as the text provides much useful guidance on assessment of the factors.
- The HSI methodology involves mathematically combining 10 values derived from an assessment of 10 factors of the pond's physical environment, to produce a score.
- Some of the HSI factors are absolute values, but most involve a degree of subjectivity, and it is possible to obtain a significantly different final score by a relatively slight difference in the assessment of one or more of the factors. The method should therefore be used with caution, and a precautionary approach should always be taken. Further guidance on this is given in 4.2 below.
- The assessment should only be done by a skilled and experienced ecologist, with a good understanding of great crested newt behaviour and habitat preferences.
- It is not necessary for the surveyor to hold a Natural England licence.
- On the basis of the HSI score, the pond is assessed as having 'poor', 'below average', 'average', 'good', or 'excellent' suitability for supporting Great Crested Newts, according to the scale of categories developed by Lee Brady (see ARG advice note 5 and Table 5 below).
- An assessment of '**average**' or **above** prompts the need for further surveys during the breeding season, in order to ascertain without reasonable doubt whether a great crested newt population is present, and if so of what size and significance. See section 3 above.
- An assessment of '**below average**' may prompt the need for precautionary working methods to be used when implementing the development (see 7 below)
- An explanation for the assessment of a factor should be given if the assessment has been made subjectively or on the basis of judgement rather than evidence.
- C. Sellars, 2010 provides further research on the reliability of the HSI methodology for predicting great crested newt presence.

4.2 Guidance on assessing some of the factors

Some of the factors can be difficult to assess at certain times of year. It is important to 'mark up' rather than down, and **take a precautionary approach** – if you cannot assess a factor with confidence, take the highest value in the range than seems to you to be possible.

If your assessment produces a **score between 0.49 and 0.6**, minor changes in the scoring of each factor could change your assessment from 'poor' to 'below average' or 'average', which affects the conclusions from your survey. Therefore, assessments that produce this range of scores need careful checking and justification by the surveyor – the Ecology unit at LCC will also scrutinise these assessments.

Take a pond-net with you when you go to survey a pond – you will need to do some pond sampling to assess water quality.

Useful guidance and explanation of the science behind individual factors is given in the text of Oldham *et al* (2000).

- S1: Location** - all of Leicestershire and Rutland is in Zone A.
- *S2: Pond area** (m^2) - round area up to nearest 50m^2 , then read HSI score off graph.
***if the pond is more than 2000m^2 , this factor should be omitted from the HSI calculation**
- S3: Years out of ten that pond dries out** - use local knowledge (e.g. owner) and personal judgement; take a precautionary approach on assessments made after untypical rain shortages. Ponds that occasionally dry out are more likely to support great crested newts.
- S4: Water quality.** This is one of the hardest to estimate with confidence. Turbid water does not necessarily mean poor water quality; good ponds can be clouded after heavy rain, for example. Newts are relatively tolerant of eutrophic conditions. Where access to the pond is possible, some invertebrate sampling with a pond-net should be done. Be aware that invertebrate levels vary with seasons. The assessment of 'Bad' water quality should only be made where there is clear evidence on continuous and long-term pollution (e.g. large scale tipping of refuse, or spillage of hydrocarbons) and the presence of certain invertebrates. Fish are unlikely to be present in ponds with bad water quality. If the pond is dry at time of survey, this factor is very difficult to assess. If in doubt or unable to gather evidence, take a precautionary approach and mark up, not down.
- S5: Shade.** This should be assessed for the first metre from the shore, around the pond perimeter, and not over the whole pond. Shade is from trees, scrub or buildings, but not emergent vegetation. If assessing the pond in the winter months, make an adjustment to allow for leaf growth on trees. Whilst aerial photos may help, they must be very recent ones. The HSI score is read off a graph provided.
- S6: Waterfowl.** An assessment of 'Major' is only made if the bank is denuded of vegetation and there is no submerged vegetation. Make an adjustment for seasonality; banks are less vegetated in winter, for example. Ignore moorhens (see Oldham *et al*, 2000).
- S7: Fish.** Use local knowledge (the owner or site users). Pond-netting may help to assess small fish numbers. Ponds that occasionally dry out are unlikely to have more than minor fish populations. Presence of fishing platforms or pegs, formal or informal, will suggest level of usage from occasional to heavy use, which in turn is evidence of fish numbers. Only assess as 'Major' if you know that recent fish-stocking has taken place, or there is evidence of heavy use by anglers.
- S8: Pond count** (No. ponds/km in 1km radius). Count the number of ponds in a 1km radius of the pond, excluding those on the far side of barriers to dispersal. Note which map/aerial photo/GIS system used to count, with date if relevant. See notes above (2.4) re barriers – note that most country lanes (even if apparently busy) are not barriers. The number is divided by π (3.14) to obtain the no. ponds/ km^2 , then read off graph.
- S9: Terrestrial habitat.** Refer to notes above (2.5). Assess the habitat for 500m radius with connectivity to the pond. 'Poor' would mean that the pond was surrounded for some distance by arable land or amenity grassland, for example, with little other habitats. 'None' should only be given for ponds completely surrounded by an expanse of bare surfaces such as concrete, tarmac or compacted soil.
- S10: % of macrophyte cover** of the pond surface. This includes floating plants, both free-floating and rooted (e.g. Flote-grass and Water-lily), submerged plants if they are at the surface, and emergent plants (e.g. Reedmace), but not filamentous algae or Duckweed (*Lemna* sp.). It is impossible to assess this with confidence in winter, when many plants have died back completely. At these times, a precautionary approach should always be taken and the best possible assessment made, given other environmental factors. For example, a heavily shaded pond usually does not support many surface macrophytes. Aerial photos are usually taken in summer, and may be of use for ponds in open situations. In the spring/summer/autumn months, diagrams in the methodology will assist in making this assessment, and the HSI value is then read off a graph.

4.3. Submit data in this format, and provide a clear key plan showing pond locations

Please note that LRERC will not accept HSI assessments without explanatory notes/rationale for subjective factors.

A: For each pond assessed:

Pond name/pond ref to key plan: Pond A (Manor Farm)
 Date: 25/08/11
 8-fig grid ref, centre of pond: SK12345678
 Surveyor: Sue Timms

Table 3: EXAMPLE DATA ONLY

	<i>HSI factor</i>	<i>Site Assessment</i>	<i>HSI Value - from Oldham (2000)</i>	<i>Explanatory notes/rationale</i>
S1	Location (see map in methodology)	Zone A	1	
S2	Pond area (m ²)	1350m ²	0.9	
S3	Years out of ten that pond dries out	Rarely – c. 2 yrs in 10	1.0	Information provided by owner
S4	Water quality	Moderate?	0.67	Marked up, as could not be adequately assessed - pond was low and stagnant due to late summer survey. Very few invertebrates – midge larvae, water beetles, <i>Lymnaea</i> pond snails. Some litter/rubbish around edges, but nothing to indicate pollution.
S5	Shade - % of 1m belt of pond within perimeter	65%	0.9	Shaded by willow scrub on western edge and large Ash tree to south
S6	Waterfowl – No. /1000m ²	2/3 per 1000km ²	0.67	One moorhen and pair of mallard seen
S7	Presence of fish	Minor	0.33	1 stickleback caught in net. Owner has introduced goldfish in the past.
S8	No. ponds/km within 1km radius	4 ponds/π = 1.274	0.9	Area west of A1 excluded. 3 field ponds shown on 1:25,000 OS Explorer. Additional fishing lake identified from Google Earth aerial photos [?date].
S9	Quality of terrestrial habitat	Moderate	0.67	Good to west – willow scrub, rough grassland and neglected garden. Poor to south-east – mainly arable – but with good hedges and ditches connected to pond. Improved grassland to south-west, and small young conifer plantation
S10	% macrophyte cover	40%	0.7	Mainly duckweed, but with clump of Reedmace to S and Flote-grass to E

$$\text{Score} = (S1 \times S2 \times S3 \times S4 \times S5 \times S6 \times S7 \times S8 \times S9 \times S10)^{1/10} = (0.05068188437)^{1/10} = 0.74$$

*omit this factor if pond is over 2000m², and calculate the 9th root

Note: If you haven't got a calculator that works out roots - to find the tenth root of the figure obtained by multiplying all the S values together, try googling 'nth root' and using one of the many free internet maths sites – e.g. <http://www.basic-mathematics.com/nth-root-calculator.html>)

B: Summarise data as follows

Table 4: EXAMPLE DATA ONLY

<i>Pond name/ref to key plan</i>	<i>Date</i>	<i>8 fig Grid ref:</i>	<i>Surveyor</i>	<i>HSI score</i>	<i>HSI assess-ment</i>	<i>Further survey required</i>
Pond A (Manor farm)	05/08/11	SK12345678	Sue Timms	0.74	Good	Y
Pond B	05/08/11	SK23456789	Sue Timms	0.63	Average	Y
Pond C	05/08/11	SK22345567	Sue Timms	0.47	Poor	
Pond D (Pool Farm fishing lake)	05/08/11	SK11114444	Sue Timms	0.55	Below average	
<i>etc</i>						

5. When is follow-up survey work needed after an HSI assessment?

5.1 If you score ‘**average**’, ‘**good**’ or ‘**excellent**’ on the HSI assessment, in most circumstances a suite of follow-up surveys for GCN in their breeding season, in accordance with national guidelines and Section 3 above, will be needed.

Table 5: Categorising HSI Scores (the Lee Brady system)

HSI score	Pond suitability for great crested newts
Less than 0.5	Poor
0.5 – 0.59	Below average
0.6 – 0.69	Average
0.7- 0.79	Good
More than 0.8	excellent

Ref: ARG-UK Advice note 5

5.2 If the score is ‘**below average**’ or ‘**poor**’ the Ecology unit of LCC will scrutinise the HSI assessment, and may seek clarifications on some points.

5.3 If the agreed score is ‘**below average**’ you may be required to carry out precautionary methods of working when implementing your development (this depends on the nature, scale, location, relationship to pond and possible impacts of your development). This is just in case great crested newts are present. These may be the subject of a planning condition (see 7 below). We are aware that great crested newts have been recorded from ‘**below average**’ ponds in Leicestershire and Rutland, although this is infrequent (also see Oldham 2000 and Sellars 2010 on this issue). You may therefore still be asked to do further surveys in the great crested newt season if it is felt that the location of the pond, the nature of the development, the nearby presence of a known great crested newt pond or some other factor creates a greater risk to newts should they be present, and which cannot be mitigated by a precautionary working method.

5.4 If the agreed score is ‘**poor**’ you will not need to do anything more.

5.5 Submission of follow-up surveys up-front with planning applications

A suite of follow-up surveys will only be possible beginning in February of the following breeding season. As survey results must be submitted up-front with the planning application, it may be necessary to withdraw the application until the follow-up surveys have been done. Failure to do this might result in refusal of the application on the grounds that insufficient evidence has been submitted regarding the impact on protected species.

If, in the opinion of LRERC, the impacts of an **outline** planning application can be completely mitigated through 'Reasonable Avoidance Methods' (RAM – see 7.1 below), without the need for a EPS licence, the Great Crested Newt surveys can be deferred, but **MUST** be submitted upfront with the detailed or reserved matters application.

6. How long is survey information valid for?

Pond surveys that find evidence of great crested newts are only valid for two survey seasons, or until another different application is made, whichever is the shorter period.

However, please note that Natural England may require additional surveys if the development needs a European Protected Species licence (see 1.2 above).

A survey season is during the great crested newt breeding season (see table 1 above). If an application is unchanged, a pond survey carried in April 2014 should be updated with pond surveys during the breeding season in 2016. This is to see whether the newts are still present, in similar numbers as before.

Changed circumstances could require changes to mitigation or to precautionary methods of working. If the agreed Mitigation Plan is subject to a planning condition, changes must be approved in writing by the Planning Authority, backed up with a supporting survey report.

If the type or scale of the proposed development changes, the mitigation needed might also change, therefore the agreed Mitigation Plan may need to be revised and re-submitted.

Negative pond surveys or HSI assessments scoring 'poor' carried out up to 2 years previously are valid in support of a planning application, and will last for the duration of the planning permission.

7. Avoidance of harm, mitigation and compensation

7.1 What kind of mitigation operations could be required?

The aim of avoidance, mitigation and compensation is to maintain the population of great crested newts at its existing conservation status. Mitigation and compensation plans are unique to a particular situation, and it is not possible to standardise or to decide on mitigation in the absence of survey data.

Please refer to section **7.2 Key Principles of Mitigation** in the NE Great Crested Newt Mitigation guidelines – the third paragraph on p37 covers ‘precautionary’ mitigation.

Generic or ‘worst case scenario’ mitigation plans submitted instead of a survey report are not acceptable

Avoidance of harm should be investigated first. This will maintain the newts in their existing terrestrial and pond habitat, with minimal temporary disturbance only. **‘Reasonable Avoidance Measures’ (RAM)** include:

- Agreeing working methods and timing of phases to protect newts from harm at various life-cycle stages.
- Adjusting the siting of development to create buffer zones around habitats and connecting features such as hedges
- Retention of habitats within the development, with protective fencing during construction
- Reinstatement of habitats after disturbance
- Storage of material off the ground
- Specifying the long-term use and management of open space
- Preventing access permanently to hazardous area such as main roads
- Careful design of drainage system to prevent newts being trapped in gully-pots, etc.
- Ensuring all site workers are aware of newts and the law
- Agreeing a procedure for action if a newt is discovered on site

Note that the use of **Temporary Amphibian Fencing (TAF)** without a licence from Natural England may constitute an offence, unless there is no habitat suitable for shelter or protection in the area subject to potentially harmful activities, or the layout of the TAF would not result in substantial interference to the dispersal routes of great crested newts.

Mitigation should be considered if avoidance of harm isn’t possible – for example if the development will result in the loss of terrestrial habitat. Mitigation aims to reduce these impacts to insignificance, and to maintain the newts in their existing location and ponds. Measures include:

- Improvements to habitat quality and connectivity through creation, enhancement or management – e.g. conversion of arable land/amenity grassland to scrub /rough grassland; planting hedges; creating ditches; restoring dried up ponds; removing fish from ponds.
- Providing additional habitat features such as artificial hibernacula
- Exclusion or one-way fencing to prevent newts getting on to construction site
- Capturing and removing newts from the construction area to an existing agreed receptor pond within the development site
- Long-term maintenance and management of newt habitats
- Ensuring all site workers are aware of newts and the law
- Agreeing a procedure for action if a newt is discovered on site

Compensation is the last resort if it is unavoidable that newt habitat (terrestrial and pond) will be destroyed so that newts can no longer live in their existing habitats. Measures include:

- Creation of new ponds and surrounding terrestrial habitats for translocated newts. In general (to allow for failures) the area of habitat created should double that lost. Pond creation may need to happen 2 years before translocation to increase chances of success.

7.2 Mitigation plans

A great crested newt survey report should include a section on mitigation, avoidance and compensation measures. Usually, these operations are grouped together into a 'Mitigation Plan'. It should recommend operations that will avoid harm, mitigate or compensate for the impacts of the development. The purpose of this section is to demonstrate to the planning authority that these measures are feasible and achievable.

The report should show sites for pond and other habitat creation/enhancement, the locations of newt exclusion fencing, the location of receptor sites for translocated newts, etc. It should be clear about timing and working methods.

The mitigation plan MUST be agreed between the ecological consultant and the applicant

The planning authority may make the recommended Mitigation Plan into a planning condition.

*Leicestershire and Rutland Environmental Records Centre
Room 400,
County Hall
Glenfield LE3 8RA
0116 305 4108
planningecology@leics.gov.uk
November 2014*

8. References and weblinks

Legislation and policy

Wildlife and Countryside Act 1981

http://www.opsi.gov.uk/RevisedStatutes/Acts/ukpga/1981/cukpga_19810069_en_1

The Countryside and Rights of Way Act 2000

http://www.opsi.gov.uk/acts/acts2000/ukpga_20000037_en_7#pt3-pb8-l1g81

The Conservation of Habitats and Species Regulations 2010 http://www.opsi.gov.uk/si/si2010/uksi_20100490_en_1

Circular 06/05: Biodiversity and Geological conservation – Statutory Obligations and their impact within the planning system (2005) ODPM/DEFRA

<http://www.communities.gov.uk/publications/planningandbuilding/circularbiodiversity>

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