

Title	Proposed New Dwelling, Stables and Manege, Elm Cottage, Bowling Bank, Is Y Coed, Wrexham – Great Crested Newt Reasonable Avoidance Measures Method Statement
Client	Mr & Mrs C & J Roberts
Date of Method Statement	6th July 2010
Author	Tom Knight

1 Introduction

Method Statement

- 1.1 Marches Ecology was commissioned by Mr & Mrs C. & J. Roberts to undertake a site visit at the location of a proposed new dwelling, stables and manege, Elm Cottage, Bowling Bank, Is Y Coed, Wrexham (OS Grid Ref. SJ 402 505). The site visit was required in order to assess the potential value of the habitat present for Great Crested Newts (*Triturus cristatus*) and subsequently to produce a Method Statement detailing Reasonable Avoidance Measures (RAMs) to be implemented prior to and during the construction period. This Method Statement is to be submitted in support of the planning application for the stables and manege and to discharge a condition attached to the permission for the new dwelling. It has been discussed with Matthew Ellis (Countryside Council for Wales, Regional Species and Biodiversity Officer) and Chris Worker (Welsh Assembly Government, Nature Conservation Branch) and the RAMs approach agreed in principle.
- 1.2 Details of the proposed development have been submitted as two planning applications to Wrexham County Borough Council (WCBC). The first application (P/2010/0262) concerns the demolition of an existing house and outbuildings and construction of a new dwelling, garage and associated infrastructure. The second application (P/2010/0263) concerns the construction of a stable block with hard-standing and manege both adjacent to the new dwelling house. The Planning Officer dealing with the applications subsequently confirmed by email the following [to Mark Roberts of McCormick Architecture]:
- With regard P/2010/0262: *'CCW [Countryside Council for Wales] have accepted that a scheme of Reasonable Avoidance Measures be submitted prior to the commencement of any works on site (to include any demolition)'.*
 - With regard P/2010/0263: The applicant should undertake a presence/ absence survey for Great Crested Newts or accept presence and provide a RAMs scheme/ habitat mitigation measures. *'CCW are receptive to either course of action'.*

The first application (P/2010/0262) has been granted permission. Condition 8 attached to this permission states:

'No development shall take place (to include demolition of buildings) until a report has been submitted fully detailing a scheme of Reasonable Avoidance Measures for the possible presence of great crested newts and other amphibians. These measures shall be completed in accordance with timescales to be agreed as part of the measures before development commences on site'.

This Method Statement has been prepared in order to discharge Condition 8 attached to P/2010/0262 and to provide supplementary information to the second application (P/2010/0263).

- 1.3 This document assesses the habitat both within the proposed development site and immediately surrounding area for its potential value to Great Crested Newts. The proposed non-licensed Reasonable Avoidance Measures (RAMs) scheme is outlined. The RAMs will ensure as far as is reasonably possible that impacts on Great Crested Newts are minimised/ avoided.

Project Background

- 1.4 P/2010/0262 concerns the demolition of an existing house and construction of a new dwelling more-or-less on the same footprint. A new hard-surfaced driveway will be formed. The existing derelict out-buildings will also be demolished and be replaced with a single double garage. P/2010/0262 covers an area of land of approximately 0.085 hectares. P/2010/0263 concerns the construction of a stable block with associated hard-surfaced yard and a separate manege. The stable and manege are to be constructed in an adjacent hay meadow owned by the applicant. The P/2010/0263 application relates to an adjacent field that extends to approximately 1.3315 hectares. The stable block and manege will be built in a small part of this field.
- 1.5 The topsoil within the footprint of the manege will be stripped to solid ground. Four rows of land-drains will be laid and covered with 100 mm of 20-40 mm size clean stone. A membrane will be laid over the top of the stone and a layer of sand and fibre will cover this.
- 1.6 Access to the site will be gained over the adjacent minor road via the existing gateway. Construction will take approximately six months. There will be a maximum of 10 contractors on site at any one time. Machinery that will be used will include a forklift and JCB 3CX or similar.

2 Habitat Assessment

Methodology

- 2.1 The site visit was carried out on 24th June 2010 by Tom Knight of Marches Ecology. The weather was warm and cloudy with a light breeze. The survey focussed on land within the proposed development footprint and immediately adjacent land where access

was provided. Land within 250 m of the proposed development site was also viewed where possible to do so from roads/ rights-of-way.

- 2.2 The quality of terrestrial and aquatic habitat for Great Crested Newts was assessed. The assessment of aquatic habitat was based on the Habitat Suitability Index (Oldham, *et al.* 2000) that identifies several criteria that influence the suitability of ponds for Great Crested Newts. These criteria are as follows:

- Geographic location;
- Pond area (Dimensions);
- Pond permanence (Will it dry out?);
- Water quality (Clarity, eutrophic status and substrate);
- Pond shading (Percentage of the pond that is shaded);
- Presence of wildfowl and/ or fish;
- Pond density/ isolation (Is the pond isolated or near other water bodies?);
- Surrounding terrestrial habitat (“newt friendly habitat”);
- Macrophyte content (Including marginal and aquatic vegetation); and
- Barriers to the proposed works (Major roads, rivers, developed land).

Site Description

- 2.3 The footprint of the proposed new house and associated infrastructure is located on an existing house with various dilapidated outbuildings. The current building is brick built and rendered with various small extensions. There is a concrete hard-standing apron on most sides of the building. This is in poor condition and contains a number of cracks with possible access to the foundations. Such crevices and voids provide potential refugia/ hibernacula for amphibians. The adjacent yard is largely well vegetated with various grasses and tall herbs. Within the yard there are several piles of rubble, timber and other items that may also provide potential refugia/ hibernacula for amphibians.



The existing house and yard.

- 2.4 Adjacent to the yard there is a small area of rank grassland bounded by hedges on three sides. This grassland provides terrestrial habitat of potential value for Great Crested Newts. There are also three outbuildings largely constructed of timber and or corrugated metal sheets. The foundations of these buildings may also provide potential refugia/ hibernacula.
- 2.5 The proposed stable and manege would be located in an adjacent meadow. This meadow is relatively floristically diverse in places and includes a number of grasses including the locally scarce (Green 2006) *Hordeum secalinum* (Meadow Barley). At the present time this field is cut for hay (see photo below) and in the previous year was grazed by cattle (confirmed by the applicant). While this field may be of value for Great Crested Newts at certain times of the year, immediately following the hay cut and when grazed it is likely to be of less value as terrestrial habitat for Great Crested Newts. The location of the stable block in particular is likely to be of limited value as it largely comprises a disturbed area of ground by the existing field entrance gate. This location is characterised by low ruderal vegetation.



- 2.6 The meadow is bordered on all sides by tall (approximately 2-3 m), often infrequently managed, hedges. While some of these hedges contain gaps in most instances they do provide potential dispersal routes for amphibians. These dispersal routes are strengthened due to the presence of associated ditches although these ditches were dry at the time of the survey visit. The adjacent fields surrounding this meadow comprise agriculturally improved grassland that is largely of limited potential value for Great Crested Newts.
- 2.7 A pond is located in the line of the hedge on the southern field boundary. It measures approximately 15 m by 7 m. The banks extend to approximately 0.5 m above the water level. It is mostly shallow and the margin has been extensively poached by cattle in the past. It is possible that the pond may dry out at times. The water surface is largely shaded (75-80%) by over-hanging *Salix cinerea* (Grey Willow). The vegetation of the drawdown zone is relatively diverse and contains species that may be used for egg-

laying by Great Crested Newts, e.g. *Glyceria fluitans* Floating Sweet-grass. It should be noted that much of this vegetation was out of the water at the time of the survey visit. There is virtually no aquatic vegetation other than a small amount of *Callitriche stagnalis* (Common Water-starwort). The water was generally turbid, contained locally abundant filamentous algae and appeared to be suffering the effects of eutrophication. The marginal vegetation also included a number of plants of *Oenanthe aquatica* (Fine-leaved Water-dropwort) which is also a locally scarce plant.



- 2.8 Great Crested Newt eggs were recorded. A number of desiccated eggs were also recorded on vegetation up to 15 cm out of the water. An adult female Great Crested Newt was observed rising to the surface as were a small number of Smooth Newts.
- 2.9 A nearby shallow depression in the hay-field measures approximately 15 m by 6 m and 0.3 m deep. While this depression supports a number of wetland plant species it did not hold water at the time of the site visit.

Status of Great Crested Newts in the Area

- 2.10 An initial review of the OS map 1:25, 000 scale indicates that there may be six waterbodies (other than ditches and streams) within approximately 250 m of the proposed development site including the pond within the applicant's landholding (OS Grid Ref. SJ 400 505) as described above. The approximate mapped location of all of these ponds was viewed from nearby roads. It was confirmed that four of these six ponds are no longer present. Other than the pond within the applicant's landholding the other pond within 250 m of the site is located approximately 185 m to the northwest (OS Grid Ref. SJ 400 507). There are a number of ponds within 250 m-500 m of the proposed development shown on OS mapping. The status of these ponds has not been confirmed.

- 2.11 The Great Crested Newt (meta-) population on the eastern side of Wrexham Industrial Estate is relatively well recorded. The density of field ponds in this area is particularly high. This meta-population may be considered to be of European importance.

Summary Evaluation

- 2.12 The terrestrial habitat within the footprint of the proposed development provides moderate to high value potential habitat for Great Crested Newts. The various buildings, hard-standing and piles of debris provide potential refugia/ hibernacula. The meadow, rough grassland, adjacent hedges and yard provide potential foraging habitat as well as dispersal routes.
- 2.13 While Great Crested Newt eggs and an adult were recorded from the pond within the applicant's landholding the aquatic habitat provided is of low quality. It is therefore only likely to support a small population (*i.e.* a maximum count of up to 10 individuals according to English Nature 2001). This pond is located approximately 90 m from the closest part of the proposed development site. However a hedge (with gaps including one of approximately 20 m) does form a potential habitat link between the pond and the proposed development site. The site visit confirmed the presence of only two ponds within 250 m from the proposed development site although there may be a number of ponds within 250 m-500 m away. It is therefore possible that there may only be a small population within the vicinity of the proposed development site.
- 2.14 It is possible that Great Crested Newts may use the habitat within the proposed development site. It is also possible that Great Crested Newts may disperse across some part of the proposed development site. Great Crested Newts dispersing between other waterbodies in the area or to terrestrial habitat could disperse across the site. There is therefore the potential for disturbance or killing of animals during any works at this site. As such this RAMs Method Statement details a precautionary approach to avoid any impacts on Great Crested Newts. Subject to appropriate implementation of this RAMs scheme no impacts due to the proposed development on the Favourable Conservation Status of the local Great Crested Newt population are envisaged.

3 Legislation

- 3.1 Great Crested Newts are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981*, as amended, and receive full protection under *Section 9*. The 1981 Act was amended by the *Countryside and Rights of Way Act 2000* (CRoW Act) which further extends the protection. It is also listed on *Annexes II and IV* of the European Union Directive on Natural Habitats and Wild Fauna and Flora (*Council Directive 92/43/EEC*), which is implemented in the UK by *The Conservation of Habitats and Species Regulations 2010*. It is included on *Schedule 2* of the Habitats Regulations which gives it full protection under *Regulation 40*. The Great Crested Newt is therefore a so-called European Protected Species. The legislation applies to all life stages of the Great Crested Newt, including eggs, larvae, juveniles and adults.
- 3.2 Under the above legislation it is an offence to intentionally or recklessly:
- kill, injure or take an individual of such a species;
 - possess any part of such species either alive or dead;
 - damage, destroy or obstruct access to any place or structure used by such species for shelter, rest, protection or breeding;
 - disturb such a species whilst using any place of shelter or protection; or
 - sell or attempt to sell any such species.
- 3.3 *Section 74(2)* of the *CRoW Act 2000* (now under *Section 42* of the *Natural Environment and Rural Communities Act 2006*) requires the National Assembly for Wales to prepare and publish a list of species and habitats that it considers to be of principal importance for the conservation of biological diversity in Wales. The Great Crested Newt is included on this list. *Section 74* also places a duty on the National Assembly for Wales to have regard, in exercising all its functions, to conserve biological diversity in accordance with the United Nations Convention on Biodiversity.
- 3.4 The Great Crested Newt is a priority species in the UK Biodiversity Action Plan (UK Biodiversity Steering Group 1995, 1998a & b), which includes objectives and targets to protect and restore newt habitats and to create new sites through habitat management and re-creation. There is also a SAP for Great Crested Newts in Wrexham (Wrexham County Borough, 2003). The Wrexham BAP is a supplementary planning guidance document.

4 Great Crested Newt Identification

- 4.1 This sub-section of the document is provided for reference in the event that any amphibians are found on site during the work. It will be discussed with all site personnel prior to the start of work. Identification of any newts that may be found is likely to require the confirmation of a suitably qualified ecologist.
- 4.2 Great Crested Newts are the largest of the three British species of newt; adult males can reach 15 cm in length, with females slightly larger at 18 cm. The upper surface and flanks are dark brown or black and distinctly warty, with a row of white/silver dots present along the side of the head and body. Males develop a characteristic jagged dorsal crest (which has a marked break where the tail joins the body) during the

breeding season (although this lies flat when newts are on dry land). The belly is dark orange or yellow with a distinct pattern of black blotches. The throat is whitish and thickly spotted with brown/black.



Male Great Crested Newt on land (above) and female (below).



- 4.3 The Great Crested Newt may be confused with the Smooth Newt (*Lissotriton vulgaris*), although adults of this species are generally smaller (at 10-11 cm). In addition, although the male Smooth Newt develops a dorsal crest, this is unbroken from head to tail and is also undulating, as opposed to jagged. The male has brown/olive green or tan skin with black spots and the female a light brown colouration with darker spots or speckles. The belly of both the male and female is creamy yellow or orange, and the throat slightly lighter, both with dark spots or speckles.



Male Smooth Newts on land.

- 4.4 The third species of British Newt is the Palmate Newt (*Lissotriton helveticus*). It is slightly smaller than the Smooth Newt at 7-11 cm in length, although is superficially similar to the Smooth Newt. The two species can be difficult to distinguish, particularly

females. The male Palmate Newt has a much less developed dorsal crest (which is also straight edged as opposed to undulating) than a male Smooth Newt. The male Palmate has a 4-7 mm tail filament and black frills / well developed webbing on the hind feet. Typically, the throat of males and females is pure white/pinkish and very rarely spotted (in contrast to Smooth Newts).

5 Proposed Mitigation Measures

Exclusion Fencing

- 5.1 It is proposed to install temporary amphibian exclusion fencing around the proposed development site. The fencing will be installed in accordance with currently available guidance (e.g. English Nature 2001). Wherever possible this exclusion fencing will be 'one-way' particularly along the boundary closest to the pond. The use of this fencing has been discussed and agreed with Chris Worker and Matthew Ellis. Should a low number of Great Crested Newts be located during fence installation or implementation of the RAMs (see below) then they would be moved out of the fenced area and relocated for welfare reasons only to a suitable receptor site (likely to be close to the pond). While only a low number of individuals are affected it is considered that there would be no measurable impact on the Favourable Conservation Status of the local population.
- 5.2 If a considerable number of Great Crested Newts are found during implementation of the RAMs all work will then be suspended and CCW consulted. It is possible that in this instance, a Welsh Assembly Government (WAG) 'development' licence may be required in order to lawfully proceed with the works.
- 5.3 Following installation of the exclusion fencing construction will not be initiated at the site for a minimum of one week. This will allow any amphibians that may be present the opportunity to cross the one-way fencing.

RAMs Method Statement

Preparatory

- 5.4 This RAMs Method Statement will be discussed in detail with all site personnel/ on-site contractors before any works are carried out. This will take the form of a site meeting and will incorporate advice with regard to the identification features of Great Crested Newts and the procedure that should be followed if a Great Crested Newt is discovered during work.
- 5.5 Before any works commence a copy of this method statement will be issued to all site personnel/ contractors and a signed copy will be retained by the ecologist. This method statement must be strictly adhered to by all site personnel/ contractors involved with the proposed work.
- 5.6 The ecologist overseeing this project is Tom Knight (Marches Ecology) who can be reached on 07928 212545. In the event that the ecologist cannot be contacted, please contact Max Ellson on 07950 220188.

Working Protocol

- 5.7 A suitably licensed¹ ecologist will undertake a hand-/ destructive search prior to the initiation of any work at the start of the construction period. This will focus on the footprint of the proposed building as well as any immediately adjacent areas that may be used for storage of materials, vehicles or machinery. If a Great Crested Newt is found during this search it will be moved (for reasons of welfare only) to an appropriate 'receptor site' outside the development site, as previously indicated. Other amphibians that may be found during the implementation of the RAMs scheme would also be moved to the 'receptor' site.
- 5.8 The ecologist will subsequently supervise any stage of the work that could potentially impact features that could be used by Great Crested Newts. This would include removal of any areas of concrete hard-standing, demolition of all building foundations and removal of any features/ piles of debris in contact with the ground. Foundations and concrete hard-standing may be destructively searched in conjunction with the careful and judicious use of an excavator to remove material. All hardcore material will be removed immediately from site or crushed, re-laid (to form the base layer of the stable block hard-standing) and compacted within the same day. A storage container will be sited on the hard-standing created.
- 5.9 At times when there is less/ no risk to Great Crested Newts (e.g. demolition of above-ground parts of the building, later stages of construction) the ecologist will remain on stand-by (off-site) for the duration of the work; site contractors will be responsible for implementing a watching-brief. This will entail a brief visual search of the site each day prior to work being initiated. When stored materials are moved, particular attention will be paid to determine if any amphibians are located underneath.
- 5.10 Should a newt be found during the work on-site contractors will halt all activity immediately, contact the ecologist and wait until the ecologist arrives to remove the newt to an appropriate location. If any newt is found during the work the ecologist should be called to confirm identification before any action is taken. If other amphibians such as Common Frog (*Rana temporaria*) or Common Toad (*Bufo bufo*) are found during work, and confidently identified, then on-site contractors can move it to an appropriate location, as outlined above (firstly making sure their hands are damp).
- 5.11 In addition to that outlined above, the following measures will be undertaken:
- All work will be undertaken from areas of existing hard-standing/ compacted earth wherever possible. No machinery or other materials will be stored on any grass or other vegetation over night;
 - No machinery/ vehicles will access the area outside the exclusion fencing unless under supervision by the ecologist;
 - Any work undertaken outside the exclusion fencing would be subject to the RAMs outlined above and supervised by the ecologist.

¹ The ecologist should hold a current Countryside Council for Wales 'survey/ disturbance' licence.

- Prior to starting work on the stable and manege the grass will be cut to a height of approximately 10-15 cm above ground.
- Prior to leaving the site at the end of each day, all tools and other materials will be stored securely within a container located on hard-standing within the fenced area;
- Any spoil or other loose material that may be stored on site overnight must be placed on plastic sheeting on top of a pallet (or similar) so that it is raised off the ground;
- Should any holes/ excavations be left on site overnight a suitable ramp (*e.g.* plank of wood) will be placed so as to provide newts with a means of escape. The hole would be subject to a visual search (for amphibians) in the morning by site personnel; and
- Machinery and vehicles will be located on hard-standing overnight.

6 Proposed Compensation Measures

6.1 To offset any potential impacts of the scheme on the local Great Crested Newt population and to maintain (if not enhance) the FCS several compensation measures are proposed. These measures would demonstrate conservation gain and a beneficial impact on the FCS. These compensation measures are as follows:

- A new hedge (approximately 45 m in length) will be planted along the western edge of the manege. This hedge will utilise locally native species only (Hawthorn, Blackthorn, Dog-rose, Hazel), will be planted in a staggered double row and will be fenced on both sides. This hedge will provide a further potential habitat link for dispersal.
- The existing pond will be enhanced through the removal of over-hanging scrub (outside the bird nesting season), fencing of the bank and creation of an adjoined shallow scrape. The pond bank will be fenced to prevent access by the horses. A small, shallow scrape will be formed that will hold shallow water for part of the year. This work will be supervised by a suitably qualified ecologist.
- A hibernaculum will be created within the fenced area by the pond. This work would be supervised by the ecologist. As Great Crested Newts are known to spend a considerable proportion of their terrestrial phase either underground or just above ground under refuge sites, it is of great benefit to provide artificial sites, known as hibernacula (see photo below), which they can utilise. The hibernaculum will be created using material from the site wherever possible. A mixture of hardcore, brick rubble, logs, *etc*, and loose topsoil will be piled into a mound which will then be covered with a topsoil cap and, ideally, a turf covering. The lower margins of the mound should be exposed to facilitate access. The design can follow that provided in Langton, *et al.* (2001)².



Above: a hibernaculum shortly after being created.

² Langton, T, Beckett, C. & Foster J. (2001). *Great Crested Newt Conservation Handbook*. Froglife, Halesworth.

7 References

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- Wrexham County Borough (2003). *Wrexham Biodiversity Action Plan (Edition 2 – September 2003)*. The Planning Department, WCBC.

7 Signatories

I have read and understand the requirements of this method statement.

Print	Signed	Company	Date
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