Title	**Proposed Residential Development, Glan Gors, Caia Park, Wrexham – Great Crested Newt Reasonable Avoidance Measures Method Statement**
Client	**Ainsley Gommon Architects Ltd**
Date of Method Statement	**October 2012**
Author	**Max Ellson**

1 Introduction

Project Background

1.1 Marches Ecology was commissioned by Ainsley Gommon Architects to produce a Reasonable Avoidance Measures (RAMs) Method Statement to avoid any impacts on Great Crested Newts (*Triturus cristatus*) due to the construction of a proposed residential development at Glan Gors, Caia Park, Wrexham (OS Grid Ref. SJ 352 498). Planning permission for the residential development is to be sought from Wrexham County Borough Council (WCBC).

1.2 An Extended Phase 1 Habitat survey report (Marches Ecology 2012) concluded the following with regards Great Crested Newts:

'…the likelihood that Great Crested Newts are present/ could disperse across the proposed development site is considered to be negligible. However due to the presence of a pond within 250 m and taking into account that Great Crested Newts are known from Cefn Park …. it is suggested that consultation is sought with both the Countryside Council for Wales and the WCBC ecologist prior to submission of any planning application. Subject to the outcome of this consultation it may be necessary to undertake reasonable avoidance/ other mitigation measures prior to/ during the proposed development.'

1.3 Further to the above it is understood that Ainsley Gommon Architects consulted with Emma Broad WCBC Biodiversity Officer and provision of a RAMs Method Statement was requested to be submitted with the planning application.

1.4 This Method Statement details the results of the Extended Phase 1 Habitat survey (Marches Ecology 2012) (where relevant to Great Crested Newts) as well as a separate pond scoping exercise. It then assesses the habitat both within the proposed development footprint and immediately surrounding area for its potential value to Great Crested Newts, and reviews any existing available data for the species in this area. It subsequently details Reasonable Avoidance Measures (RAMs) to be implemented prior to and during the construction period to avoid any impacts as far as is reasonably possible on Great Crested Newts due to the proposal.

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Proposed Development

1.5 The proposed development concerns construction of 23 dwellings (a mix of houses and flats) and associated infrastructure. The proposed site layout is shown on an Ainsley Gommon Architects Ltd plan entitled '*Glan Gors Housing Development for Pennaf Housing Association – Proposed Housing Mix*', drawing no. C801.03F, dated 03.05.12. Details of the proposed soft landscaping scheme have not been confirmed at the present time. A schedule for the development is not available at this stage.

2 Methodology

2.1 The Extended Phase 1 Habitat Survey was carried out on 05th September 2012 by Max Ellson of Marches Ecology. Marches Ecology (2012) should be referred to for full details regarding the methodology of this survey. During this survey the quality of terrestrial habitat for Great Crested Newt was assessed; this followed a similar methodology to that provided by the Habitat Suitability Index (Oldham, *et al*. 2000) for aquatic habitat.

2.2 The pond scoping exercise involved a two-stage process; 1) a desk study to locate waterbodies on internet-based mapping and aerial photograph sources within 500 m of the site, and 2) a subsequent walkover survey (from public rights-of-way, PROWs) to field-truth and scope any waterbodies for their potential to support Great Crested Newts.

2.3 The walkover survey was undertaken on 22nd October 2012 by Max Ellson of Marches Ecology. The weather was mild with a light drizzle. The walkover survey comprised visiting waterbody locations identified from the desk-based exercise as well as walking all public rights-of-way (PROWs) within 500 m of the proposed development site boundary to attempt to locate any waterbodies that were not identified during the desk study. Each waterbody encountered (within 500 m of the site) was subject to a Habitat Suitability Index (HSI) assessment (as detailed within ARG UK[1] 2010) in relation to its potential value for Great Crested Newts. It should be noted that some of the HSI criteria (including presence/ absence of fish) and water quality (based on invertebrate populations) were assessed in a subjective manner (as detailed fish and invertebrate surveys were not undertaken). In addition, ARG UK (2010) details that assessment of ponds should be completed in the main newt breeding season (March to May), although completion outside of this period is not considered to be a significant constraint.

2.4 It should be noted that no specific land access was sought for the pond scoping exercise and therefore waterbody locations may have been identified which could not be directly accessed from PROWs. Furthermore, as not all land areas within 500 m of the site were directly accessible or visible from PROWs, the walkover survey should not be considered exhaustive. It is also possible that a pond/ ponds could be located within private gardens.

[1] Amphibian and Reptile Groups of the UK

3 Site Description

3.1 The site is located in an urban landscape (dominated by residential housing) within Caia Park, Wrexham. It extends to approximately 0.7 hectares and forms the southern extremity of a larger area of parkland (dominated by amenity grassland) that extends north/ north-west of the site. The eastern boundary of the site is formed by Coed Aben, on the opposite side of which is residential housing. The southern and western boundaries are formed by hard-surfaced paths which separate the amenity grassland from adjacent residential housing; these houses are fronted by small gardens which mostly support grass. The northern boundary of the site is not delineated by any particular feature. An area referred to as 'St. Anne's Wood' is located to the north-west of the site; this is fenced and appears to have been recently planted with young trees/ shrubs (with the previous amenity grassland resource reverting to species-poor unmanaged grassland).

3.2 The proposed development site is dominated by amenity grassland – the only other feature present is a line of (semi)-mature trees located adjacent to the eastern boundary. The amenity grassland (refer to photos below) is dominated by *Lolium perenne* (Perennial Rye-grass) with a small number of associated grasses. The forb component of the sward is dominated by *Trifolium repens* (White Clover), *Taraxacum* sect. *Ruderalia* (Common Dandelion) and locally (especially in more disturbed areas), *Plantago major* (Greater Plantain); a variety of other common grassland forbs are present at low levels of abundance. The vast majority of the grassland had been subject to tractor mowing immediately prior to the survey – as such the sward was approximately 0.02 m high with fresh arisings scattered across. Embankments are located on the south and west sides, the lower zone of which largely supports a sward to 0.2 m in height – additional species to those recorded in the main sward include the grasses *Dactylis glomerata* (Cock's-foot) and *Holcus lanatus* (Yorkshire-fog), and a range of common forbs/ tall-herbs.

Amenity grassland that dominates proposed development site (September 2012). LHS looking southeast from northwest corner of site. RHS looking west along southern embankment.

3.3 A short length of species-poor garden hedge is located to the immediate south of the proposed development site. A small stand of unmanaged rough grassland is located immediately adjacent to the north-west corner.

4 Status of Great Crested Newts in the Area

Existing Information

4.1 Marches Ecology (2012) included a review of species records on the National Biodiversity Network (NBN) Gateway website[2] for the 10 km grid-square SJ34. This included 'a large number of records of Great Crested Newt'. Only one is from within approximately 1 km of the proposed development site: SJ 357 497 Cefn Palmer (otherwise known as Cefn Park), dated 1992, a location approximately 550 m east.

Pond Scoping – Waterbodies within 500 m of the Site

4.2 *Figure 1*, appended to this Method Statement, indicates the 500 m search area around the proposed development site boundary as well as the location of the waterbody detailed below.

4.3 An initial review of the OS map 1:25, 000 scale identified one waterbody within the 500 m search area: referred to as *Pond 1* below. This was confirmed further to a detailed review of the MAGIC web-site[3] and aerial photography available on Google Maps[4]. *Pond 1* was assessed during the pond scoping exercise during which no additional waterbodies were located. A summary of the pond scoping exercise is provided in *Table 1* below; a description of *Pond 1* and an HSI assessment is then provided in *Box 1* and *Table 2* respectively.

Table 1 – Pond Scoping Exercise; Summary

Ref.	OS Grid Ref.	Approx. Distance from Development Site	Notes
1	SJ 35447 49927	185 m	A large feature visible on OS mapping, MAGIC and Google. Confirmed during walkover survey.

[2] http://data.nbn.org.uk)
[3] http://www.magic.defra.gov.uk/
[4] http://maps.google.co.uk/

Box 1 – Pond Description and Photo

	Pond 1. A pond located adjacent to Cefn Road, at the base of a slope that is characterised by an arable crop (Maize). Viewed from the road-side. It is approximately 65 m x 35 m in size; its depth is unknown. A mosaic of rough/ marshy grassland and scattered scrub/ trees fringes the pond; a small woodland block is located to the immediate north. The water is brown and appears turbid – it is considered likely to receive run-off from both the adjacent arable field and road. No aquatic vegetation was observed. Marginal vegetation comprises a narrow band of emergent plants including frequent Branched Bur-reed and Great Willowherb. Frequent litter is present within the pond/ immediate locality.

Table 2 – Habitat Suitability Index Scoring Table, Pond 1

HSI Category	**Description**	**Score**
SI_1 Location	Zone A, optimal	1.0
SI_2 Pond area	Approximately 2275 m^2	N/a[5]
SI_3 Pond drying	Never dries (assumption)	0.9
SI_4 Water Quality	Poor (brown in colour and turbid; no submerged plants visible, eutrophic?)	0.33
SI_5 Shade	50 % of pond perimeter shaded	1.0
SI_6 Fowl	Minor (no indication of heavy use)	0.67
SI_7 Fish	Fish – possible?	0.67
SI_8 Ponds	4	0.7
SI_9 Terrestrial Habitat	Poor (within 250 m dominated by arable and housing)	0.33
SI_{10} Macrophytes	20% (marginal emergent vegetation)	0.5
	Total HSI score	0.0153988412
	9th Root	0.629
	Pond suitability	***Average***

[5] ARG UK Advice Note 5 (ARG 2010) notes that '*For ponds larger than 2000 m^2 omit this factor from the HSI calculation (as there are no data for such large ponds)*'. The 9th root should be calculated.

5 Summary Evaluation

5.1 The regularly mown amenity grassland that characterises the proposed development site is of negligible potential value for Great Crested Newts, although animals would be able to disperse across it should they be present.

5.2 The potential presence of Great Crested Newts in terrestrial habitat is governed more by the proximity of a suitable breeding pond than by the quality of the terrestrial habitat. Great Crested Newts commonly move between ponds that are within 250 m of each other, and have been recorded travelling over 1 km (English Nature 2001). The presence of a single pond within 500 m of the proposed development site was confirmed by the pond scoping exercise. *Pond 1* is located approximately 185 m to the east – it has been assessed as 'average' in terms of its suitability to support (breeding) Great Crested Newts.

5.3 *Pond 1* is separated from the proposed development site by residential housing (approximately 170 m width at its widest point) and Cefn Road. There is also a stone wall (approximately 1 to 1.5 m in height) that forms the eastern boundary of this road for several hundred metres north and south past the pond – this is not considered to be an absolute barrier to the dispersal of newts (as for example it partly acts as a retaining wall thereby reducing its vertical height) however it is deemed to be a factor in determining the potential location of any habitats to which newts which may breed at *Pond 1* may disperse to. The closest known Great Crested Newt record is from a location approximately 550 m east.

5.4 There are no known ponds located on the opposite side of the proposed development site to *Pond 1*, to which Great Crested Newts may disperse to (should they be present). In addition, terrestrial habitat available in the vicinity of *Pond 1* (and particularly on the western side of Cefn Road) is considered to provide habitat of greater value than that afforded by the proposed development site.

5.5 Based on the above the chance of Great Crested Newts utilising/ traversing across some part of the proposed development footprint is considered to be negligible. Accordingly, the potential for disturbance or killing of animals during any works at this site is also considered to be negligible. As such this RAMs Method Statement details a precautionary approach to avoid any potential impacts on [individual] 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.

6 Great Crested Newt Legislation and Policy

6.1 This sub-section provides a brief summary of key relevant legislation. It should not be considered a comprehensive review and is not meant to be so. It is provided here for information only and is not intended to replace specialised legal advice. It does not replace the text of the legislation, but summarises the salient points.

6.2 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* (the 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* (as amended). It is included on *Schedule 2* of the Habitats Regulations which gives it full protection under *Regulation 40(1)*. 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.

6.3 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.

6.4 *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.

6.5 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.

7 Great Crested Newt Identification

7.1 This sub-section of the document is provided for reference in the event that any amphibians are found on site during the preparatory or construction phases. 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.

7.2 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.

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

7.3 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.

7.4 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.

7.5 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).

8 Method Statement

Preparatory

8.1 This RAMs method statement must be strictly adhered to by all site personnel/ contractors involved with the works. Before any works commence a copy of this method statement will be issued to, and discussed in detail with all site personnel/ contractors. This will take the form of a toolbox talk/ 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 works. The toolbox talk/ site meeting will therefore identify:

- the known status of Great Crested Newts in the area;
- legal protection afforded Great Crested Newt and associated penalties;
- identification features of Great Crested Newts;
- responsibilities of site personnel/ on-site contractors with regards minimising/ avoiding impacts on (individual) Great Crested Newts;
- the areas within which activity should be restricted; and
- the procedure to follow should a Great Crested Newt be located during the works.

8.2 Details of the ecologist overseeing the project will also be provided. A signed copy of the method statement will be retained by the ecologist to confirm that site personnel/ contractors have understood the method statement. A copy of this document will then be kept on site and provided to new relevant site personnel/ contractors as appropriate.

Working Protocol

Introduction

8.3 Visual/ hand-searches as detailed in this method statement will be undertaken by a suitably licensed ecologist[6]. To prevent unnecessary potential disturbance to Great Crested Newts (or other amphibians), and exposing them to potentially harmful conditions, all visual/ hand-searches will be undertaken during mild weather (*i.e.* above 5 °C temperature for the day and subsequent night). The watching brief as detailed in this method statement will be maintained by site personnel who have attended a tool-box talk.

8.4 If a Great Crested Newt is found during the visual/ hand-searches (*i.e.* by a suitably licensed ecologist) it will be moved (for reasons of welfare only) to an appropriate refugia (this will be determined by the ecologist – it will be located within the vicinity of the development site but outside the immediate zone of influence of the works). All work will then be suspended and the Countryside Council for Wales (CCW) consulted. It is possible that in this instance or if a Great Crested Newt is found at any other time during the work, a Welsh Government (WG) 'development' licence may be required in order to lawfully proceed. Other amphibians that may be found during the implementation of the RAMs scheme would also be moved to a refugia.

8.5 Should a Great Crested Newt (or other newt) be discovered at any other time during the works (*i.e.* during the watching brief), the following procedure must be undertaken:

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

- Site personnel/ contractors will halt all work immediately and contact the ecologist to confirm identification before any action is taken. A suitably qualified ecologist will provide verbal advice on identification before any action is taken.
- If the ecologist confirms that the amphibian is *e.g*. a Smooth Newt, then site personnel/ contractors can move it to an appropriate location outside the development site (as outlined above), firstly making sure hands are damp.
- If the ecologist verbally confirms that the amphibian is/ may be a Great Crested Newt then site personnel will wait for the ecologist to arrive to confirm identification and remove it to an appropriate refugia.
- If a Great Crested Newt is confirmed, all works will then be suspended and CCW consulted. It is possible that in this instance, a WG 'development' licence might be required in order to lawfully proceed.

8.6 If another amphibian such as a Common Frog (*Rana temporaria*) or Common Toad (*Bufo bufo*) is found during work, and confidently identified, site personnel should move the animal to an appropriate refugia (firstly making sure their hands are damp).

Detailed Procedure

Vegetation/ soil-stripping

8.7 Prior to the initiation of any work (such as vegetation/ soil-stripping) at the start of the construction period, a suitably licensed ecologist will undertake a visual-/ hand-search. Based on the character of the habitat that dominates the proposed development footprint (regularly managed and/ or disturbed amenity grassland), no controlled vegetation removal is considered to be required. This approach, and the working protocol, would however require review should the amenity grassland have been left unmanaged for any length of time. The visual-/ hand-search will focus on the footprint of the proposed development as well as any immediately adjacent areas that may be used for storage of materials, vehicles or machinery. This search would concentrate on features that might be utilised by Great Crested Newts as refugia and that may be impacted by the proposal (such features are very limited).

8.8 If vegetation/ soil stripping is to be carried out over a number of days, the detailed visual/ hand-search will be undertaken at the start of each working day when stripping is to be undertaken. Areas that have not been subject to visual/ hand-searches will be clearly marked with hazard tape or similar and site personnel/ contractors will be made aware not to access such areas. Where possible, the vegetation/ soil stripping will incorporate associated ground preparation to ensure that the all materials present are compacted and that no potential refugia are created within the development site.

8.9 In the event that controlled vegetation removal is considered to be required by the ecologist, this will involve a two-stage process. Firstly long vegetation will be cut down (with hand-tools only) to a height of approximately 15 cm above ground level. Cut vegetation will subsequently be raked up (using a spring-tined rake) and removed off site. A suitably licensed ecologist will then undertake a visual-/ hand-search, further to which the vegetation will be cut down to ground level.

8.10 Should a Great Crested Newt (or other amphibian) be discovered at any point during these searches, the procedure outlined above will be followed.

Watching brief

8.11 Outside the requirements outlined above, the licensed ecologist will remain on stand-by (off-site) for the duration of the work. All site personnel/ contractors (having attended a tool-box talk) will maintain a watching brief throughout the works. This will involve making visual searches at the start of each working day to ensure no amphibians are present. When stored materials/ equipment/ temporary structures are moved, particular attention will be paid to determine if any amphibians are located underneath. Should a Great Crested Newt (or other amphibian) be discovered at any point during the works, the procedure outlined above will be followed.

Soil storage

8.12 Should any soil be stored in temporary soil storage mounds (for example top-, sub-soil, arisings from soil stripping and or drainage/ foundation excavations), these will be subject to compaction on creation. This will ensure, as far as is practicable, that the creation of potential refugia associated with the mounds is limited. If the footprint of the soil mound has not previously been subject to a vegetation/ soil strip, a detailed visual/ hand-search will be undertaken by a suitably licensed ecologist prior to installation of the soil mound.

8.13 Any soil storage mounds associated with the development are likely to only be temporary features. If any plants/ vegetation establish on these mounds, they will be subject to regular mowing/ herbicide application (*e.g*. Roundup bioactive) to ensure that any vegetation that develops is kept as short as possible. Where possible, Rabbits will be discouraged from digging burrows within any storage mounds. These actions will ensure that the soil storage mounds provide sub-optimal terrestrial habitat for Great Crested Newts (and other amphibians).

8.14 The dismantling of any soil storage mounds may require a detailed visual/ hand-/ destructive search of these features to be undertaken by an ecologist immediately in advance. The requirement for this will be reviewed by the ecologist on a case by case basis (and will largely depend on numbers/ species of amphibians previously found as part of the RAMs scheme, the structure of the soil mound and the length of time it has been in situ). Should a detailed visual/ hand-/ destructive search be considered necessary and should the process of dismantling the soil mounds take more than one day, the visual/ hand-search will be undertaken at the start of each day that the process is undertaken. In addition, the soil mounds will be left in a compacted state between days (to ensure that no potential refugia are left over-night).

Further requirements

8.15 In addition to that outlined above, the following measures will be undertaken:

- Any loose material (such as bricks) 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. Where this is not possible a visual search should be conducted prior to moving the material, and if necessary the ecologist may need to conduct a hand-search;
- Any trenches/ excavations associated with the development site that are left open overnight will incorporate features to ensure newts/ other amphibians have a means of escape (such as leaving a ramp (or similar structure) to allow newts to easily exit). Furthermore a visual search of any trenches/ holes will be undertaken by site contractors at the start of each day to ensure no amphibians are present. Wherever possible holes/ excavations should not be left open overnight;

- 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;
- Prior to leaving the site at the end of each day, all tools and other materials will be stored securely off-site or in appropriate on-site facilities;
- Machinery and vehicles will be located on hard-standing overnight; and
- Maintenance of any areas of vegetation that may be retained and/or develop in the construction site as short as possible by regular mowing/ strimming.

9 References

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10 Signatories

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

Print	Signed	Company	Date

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Marches Ecology

C200 Proposed Residential Development, Glan Gors, Caia Park, Wrexham – Great Crested Newt Reasonable Avoidance Measures Method Statement

***Figure 1* - Ponds within 500 m of the Proposed Development Site**

Drawn by: ME
Checked by: TK
Date: 24.10.12

Key

- ★ Proposed development site (SJ 352 498)
- Approximate 500 m buffer
- Approximate 250 m buffer
- (1) Pond number