

Title	Proposed Photovoltaic Solar Panels, The Gors, Glascoed Road, Bwlchgwyn, Wrexham – Great Crested Newt Reasonable Avoidance Measures Method Statement
Client	Mr D. Lenaerts
Date of Method Statement	11th March 2011
Author	Tom Knight

1 Introduction

Method Statement

- 1.1 Marches Ecology was commissioned by Mr D. Lenaerts to undertake a site visit at the location of proposed photovoltaic solar panels, The Gors, Glascoed Road, Bwlchgwyn, Wrexham (OS Grid Ref. SJ 264 537). 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.
- 1.2 The applicant has discussed the requirement for Reasonable Avoidance Measures with Zara Lomax (Wrexham County Borough Council ecologist). It was agreed that the RAMs are only required for the cable installation work. The solar panels would be located in an area of very short grassland of negligible potential value for Great Crested Newts. This Method Statement is to be submitted in support of the planning application (Ref. P/2011/0113).
- 1.3 This document assesses the habitat both within the proposed installation 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 The proposed development concerns installation of 22 × 180 kW photovoltaic solar panels in a sheep-grazed field (the sward being approximately 3-5 cm high at the time of the site visit). The panels would be mounted on a steel frame, extend to 2.4 m high and would cover an area of 26 m². An underground armoured cable would supply electricity to the house.
- 1.5 The solar panels and cable would take 3-4 days to install; the cable being laid in 1-2 days. The route of the cable is approximately 63 m in length and includes short grassland, an old quarry face, a flower border and a patio. A mini-digger would be used

to excavate the trench for the cable. Vehicular access to the site would be via an existing farm track currently used by tractors. The track supports short grassland.

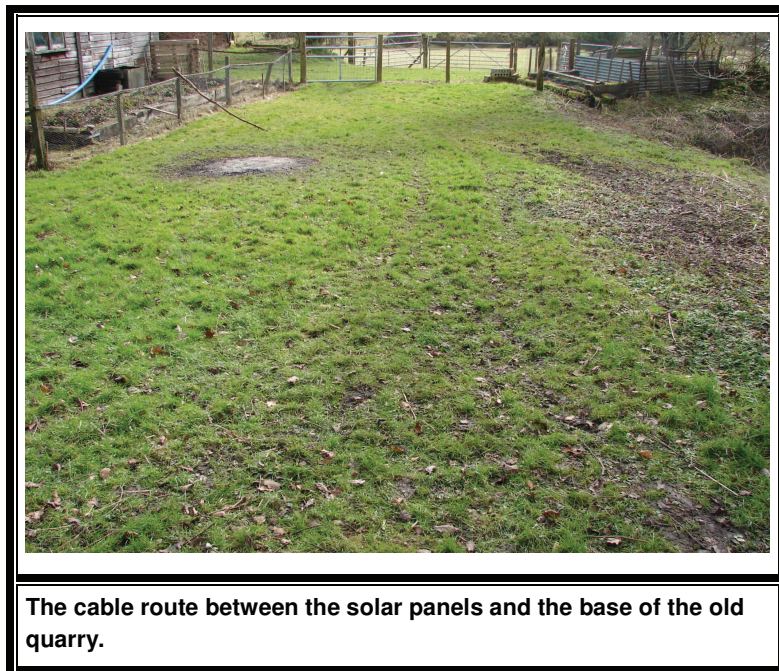
2 Habitat Assessment

Introduction

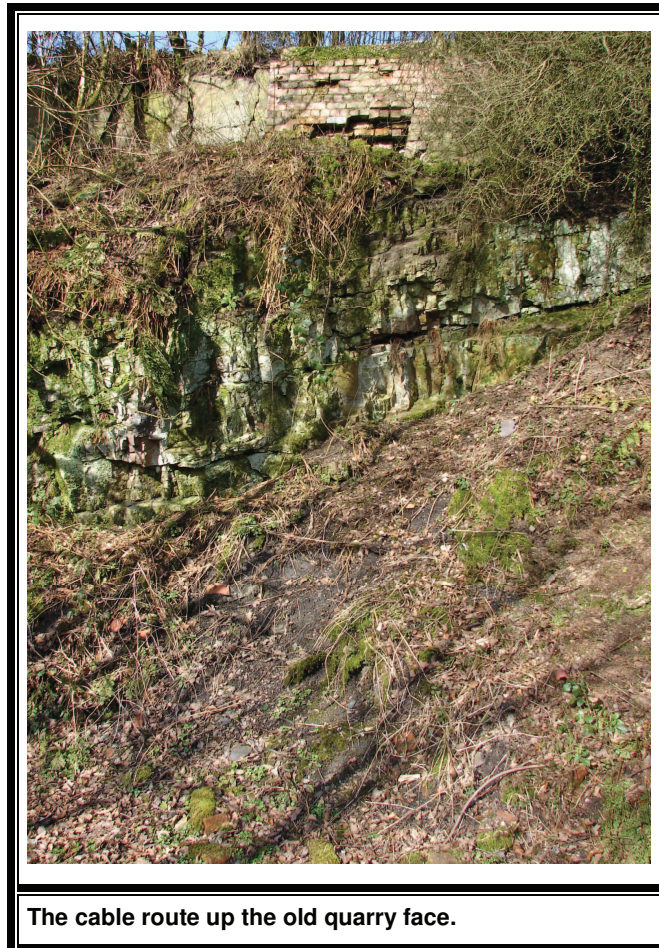
- 2.1 The site visit was carried out on 10th March 2011 by Tom Knight of Marches Ecology. The weather was cloudy and cold with light rain showers and a strong breeze. The survey focussed on land within the proposed development footprint and immediately adjacent land where access was provided. Land within 250 m of the proposed development site was also viewed where possible to do so from roads/ rights-of-way.

Site Description

- 2.2 This site description concerns the cable route only. Between the solar panels and the base of the old quarry face is approximately 34 m and is characterised by short (to approximately 10 cm), amenity grassland (see photo below). This grass is regularly cut and there is frequent passage of people/ vehicles. It is likely to be of little value for amphibians and there are no obvious potential refugia/ hibernacula.



- 2.3 The quarry face itself is largely an exposed, near vertical rock face to approximately 11 m high (see photo below). A 'platform' in the rock face supports loose soil and rocks and there is also a disused septic tank. At the foot of the rock face there is a slumped section which includes loose soil, rubble and other debris. Both the features on the rock face including the septic tank and the slumped material at the base provide potential refugia/ hibernacula for amphibians.



- 2.4 From the top of the quarry face the cable will be buried beneath a flower border and brick patio by the house (see photo below). This stretch measures approximately 18 m. The edges of the hard-standing including the patio itself provide potential refugia/ hibernacula for amphibians. The various pots and tiles on the patio, and some of the vegetation within the border could also provide cover for amphibians.



The patio by the house.

- 2.5 The cable route is located within a large and varied garden that provides potential habitat of high quality for Great Crested Newts. There are also two ponds which are further described below.

Status of Great Crested Newts in the Area

- 2.6 An initial review of the OS map 1:25, 000 scale indicates that there may be four waterbodies (other than ditches and streams) within approximately 500 m of the proposed development site. A fifth small pond is located in the applicant's garden. Four of these waterbodies are located within approximately 250 m. The large pond within the applicant's garden has formed in an old quarry (OS Grid Ref. SJ 264 537). It is approximately 8 m from the cable route at its closest point. It measures approximately 40 m by 6-15 m. Marginal vegetation is largely limited to occasional *Iris* sp. (an Iris) and *Glyceria fluitans* (Floating Sweet-grass) with *Agrostis stolonifera* (Creeping Bent) extending onto the water surface from the adjacent grassland. A small amount of the non-native invasive plant *Crassula helmsii* (New Zealand Pigmyweed) was noted. It is fairly well shaded by surrounding trees/ shrubs and used by small numbers of wildfowl.
- 2.7 A second pond is located within the applicant's garden (OS Grid Ref. SJ 264 536). It is located approximately 61 m away from the cable route at its closest point. It is lined and measures approximately 5 m by 4 m. The pond has been stocked with a range of ornamental plants. A small amount of the non-native invasive plant *Crassula helmsii* (New Zealand Pigmyweed) was noted. It is located in a small area of rough grassland. Numerous Common Frogs (*Rana temporaria*) and frog-spawn were present at the time of the site visit.

- 2.8 A third pond is located immediately south of the field within which the solar panels would be located and approximately 73 m from the cable route at its closest point (OS Grid Ref. SJ 265 536). This pond measures approximately 10 m by 20 m. The margin is characterised by locally abundant *Typha latifolia* (Bulrush), *Glyceria fluitans* (Floating Sweet-grass) and frequent *Juncus effusus* (Soft-rush). The open water is largely dominated by *Potamogeton natans* (Broad-leaved Pondweed). It is fed by a small ditch and surrounded by *Ulex europaeus* (Gorse) scrub.
- 2.9 A fourth pond is located in a private garden near the A525 road (OS Grid Ref. SJ 263 536) approximately 120 m from the cable route at its closest point. It could not be viewed in detail but also appears to have formed in a small old quarry. It appears to be well vegetated.
- 2.10 The fifth pond is located in Nant y Ffrith approximately 272 m from the cable route (OS Grid Ref. SJ 262 539). No access was possible to confirm the presence of this waterbody.
- 2.11 All four ponds that were viewed appear to provide suitable aquatic habitat for Great Crested Newts. During a data collation exercise for an unrelated project the Countryside Council for Wales provided Great Crested Newt records for this area. These records included the fourth pond described above and the large pond within the applicant's garden. No further details with regards these records were provided.

Summary Evaluation

- 2.12 The terrestrial habitat within the footprint of the proposed cable route between the solar panels and the quarry face is unlikely to be of any particular value for (foraging/ dispersing) Great Crested Newts. Features of the quarry face including the slumped section at the base and the patio provide potential refugia/ hibernacula.
- 2.13 The garden on both sides of the proposed cable route provides potential terrestrial habitat of high value. There are four known waterbodies within 250 m of the proposed cable route. The large pond within the applicant's garden is approximately 8 m from the cable route at its closest point; there is a past Great Crested Newt record apparently from this location. The small pond within the applicant's garden also provides potential aquatic habitat for Great Crested Newts.
- 2.14 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). Due to the presence of several waterbodies that may be used by Great Crested Newts nearby it is possible that individuals may disperse across some part of the cable route or may be found in crevices beneath the patio/ other potential refugia. It is considered likely that lifting of the patio would represent the highest risk to Great Crested Newts. There is the potential for disturbance or killing of animals during any works at this site although the risk accorded by the proposed work is considered to be fairly low.
- 2.15 As such this RAMs Method Statement details a precautionary approach to avoid any 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.

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 RAMs Method Statement

Preparatory

- 5.1 This RAMs Method Statement will be discussed in detail with all site personnel/ on-site contractors before any works on the cable route 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.
- 5.2 Before any works on the cable route 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.
- 5.3 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 Ellison on 07950 220188.

Working Protocol

- 5.4 A suitably licensed¹ ecologist will undertake a hand-search prior to the start of cable laying/ excavation of the trench. This will focus on the footprint of the proposed cable route (where safe to do so) as well as any immediately adjacent areas that may be used for storage of materials, vehicles or machinery. This is likely to include the grassland between the solar panels and the quarry face, and the quarry face itself where possible. Excavation of the cable route across the flower border and lifting of the patio will need to be supervised by a suitably licensed ecologist as will replacing of the patio. If a Great Crested Newt is found during this search/ supervision it will be moved (for reasons of welfare only) to an appropriate 'receptor site' outside the development site. The receptor site is likely to be within the applicant's garden under dense vegetation. All work will then be suspended and the Countryside Council for Wales 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 Assembly Government (WAG) '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 the 'receptor' site.

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

- 5.5 It is currently understood that the cable route work will be completed in 1 or 2 days including re-laying of the patio. As such the ecologist is likely to be required at the site on both days, firstly to attend the site meeting and conduct a hand-search and then to supervise the work at the patio. No further involvement by the ecologist is envisaged at this time.
- 5.6 At times when there is less/ no risk to Great Crested Newts (e.g. installation of the solar panels) 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.
- 5.7 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).
- 5.8 In addition to that outlined above, the following measures will be undertaken:
- The cable route will not be excavated on the old quarry face including the slumped section at the base. The cable will be exposed along this section to avoid disturbing any features that provide potential refugia/ hibernacula;
 - The cable trench will be filled in on the same day as excavation; no excavations will 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;
 - 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; and
 - Machinery and vehicles will be located on hard-standing overnight.

6 References

- English Nature (2001). *Great Crested Newt Mitigation Guidelines – Version: August 2001*. English Nature, Peterborough.
- HMSO (1981). *The Wildlife and Countryside Act 1981*. HMSO, London.
- HMSO (2000). *The Countryside and Rights of Way Act 2000*. HMSO, London.
- HMSO (2006). *The Natural Environment and Rural Communities Act 2006*. HMSO, London.
- HMSO (2010). *The Conservation of Habitats and Species Regulations 2010*. HMSO, London.
<http://www.biodiversitywales.org.uk/admin/upload/docs/english/Section%2042%20Priority%20List.doc>
- UK Biodiversity Steering Group (1995). *Biodiversity: The UK Steering Group Report Volume 2: Action Plans*. HMSO, London.
- UK Biodiversity Steering Group (1998a). *UK Biodiversity Group Tranche 2 Action Plans Vol I Vertebrates and Vascular Plants*. English Nature.
- UK Biodiversity Steering Group (1998b). *UK Biodiversity Group Tranche 2 Action Plans: Volume II – Terrestrial and Freshwater Habitats*. English Nature.
- 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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