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Cae Coch, Golly, Rossett

Protected Species Survey (Great Crested Newts)

Cae Coch
Golly
Rossett
Wrexham
LL12 0AL

Produced by P J Ecological Solutions on behalf of Steffan Davies

July 2025

Version 1

Report by Paul Roberts
Reviewed by Matthew Whitehead

Executive Summary

Instruction
P J Ecological Solutions were commissioned by Mr Steffan Davies to undertake a protected species survey (great crested newts) to inform a planning application at Cae Coch, Golly, Rossett. The planning application is for the demolition of the existing dwelling, block-built barn and cowshed, for the conversion and extension of the existing redbrick barn to a replacement dwelling, and for the construction of a new garage building in the place of the existing dwelling.

Results
Habitat suitability index assessments were undertaken of both ponds within the 250m zone of influence, with Pond 1 being assessed as having excellent pond suitability for great crested newts and Pond 2 being assessed as having poor pond suitability for great crested newts. Accordingly, presence absence surveys of Pond 1 were undertaken, during which small numbers of great crested newts were recorded.

Impact Assessment
To assess the risk of committing an offence in relation to great crested newt, the Natural England Great Crested Newt Licence rapid assessment tool has been used. Based upon the size of the proposed redevelopment works and the proximity of the Pond 1, it is considered likely that, in the absence of mitigation, the development of the site would result in an offence being committed.

Required Actions
A European Protected Species Mitigation License will be required before site works can commence.

A method statement, bespoke to the project, will need to be submitted in support of the application for a license. This will need to include suitable reasonable avoidance measures which will be adopted to mitigate the risk of disturbance or harm to great crested newts during or following the works, as well as how compensatory habitat is to be provided for any lost.

As a requirement of the license, a suitably qualified ecologist will need to be appointed as the site ecologist (the licensed ecologist) for the duration of the project.

A European Protected Species Mitigation License will be required before site works can commence.

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1. Introduction

P J Ecological Solutions were commissioned by Mr Steffan Davies to undertake a protected species survey (great crested newts [*Triturus cristatus]*) to inform a planning application at Cae Coch, Golly, Rossett, Wrexham, LL12 0AL (Grid Reference: SJ33615843; hereafter referred to as 'the site').

The planning application is for the demolition of the existing dwelling, block-built barn and cowshed, for the conversion and extension of the existing redbrick barn to a replacement dwelling, and for the construction of a new garage building in the place of the existing dwelling.

Local records of great crested newt were retrieved during the desk study (c. 1988; ~369m from the site boundary) and there are two ponds within 250m of the site boundary. Further, the site is within an area much of which is defined as *Potential Habitat for Great Crested Newt* per *DataMapWales* (Welsh Government, 2021).

Habitat suitability index assessments have been undertaken of both ponds within 250m of the site area (Ponds 1 and 2), in addition to six presence/absence (torch surveys, egg search and bottle trapping) of Pond 1. The aim of these efforts/this appraisal is to:

- Identify potential and actual habitat and species constraints pertinent to the development proposals.

- Detail further survey requirements, licensing requirements, and/or reasonable avoidance measures which should be adhered to during the proposed works, as appropriate.

- Identify opportunities for the proposed development to provide enhancements and add to the biodiversity resource within the site.

The surveys were undertaken by Paul Roberts of P J Ecological Solutions. Paul is a named accredited agent upon the licence of Eileen Robley (NRW survey licence number S093710/1) and has 14 years of experience surveying for great crested newt. He has held a personal Natural England survey licence for the species for over 10 years.

This report should be read alongside the document *Cae Coch, Golly, Rossett; Ecological Appraisal* (P J Ecological Solutions, July 2025).

2. Method

2.1. Habitat Suitability Assessment (Great Crested Newts)

A habitat suitability index (great crested newt) assessment of Ponds 1 and 2 were undertaken on the 08th of April 2025. The assessment considered ten factors of importance, namely location, pond area, permanence, water quality, shade, waterfowl, fish, pond count, terrestrial habitat, and macrophytes. These factors were evaluated, and an overall 'score' assigned to the pond (see Table 2.1), in accordance with the methodology prescribed by *ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index* (ARG UK, 2010).

Table 2.1. HSI Scoring System.

HSI Score	Pond Suitability
<0.5	Poor
0.5 – 0.59	Below average
0.6 – 0.69	Average
0.7 – 0.79	Good
> 0.8	Excellent

2.2. Presence/Absence Surveys

When a pond, within 250m of a proposed development, is assessed as having 'below average' or better suitability for great crested newts, presence/absence surveys are required to determine whether there is a population which may be impacted thereby.

In the absence of eDNA sampling (i.e., using torch surveys, bottle trapping, egg searches and/or netting), the minimum survey effort required to reasonably demonstrate an absence of great crested newts in a waterbody is four site visits in suitable weather conditions. These must be undertaken between mid-March and mid-June, with at least two of these visits during mid-April to mid-May.

When great crested newts are confirmed as present, a reliable estimate of population size must be made to inform any assessment of how a proposed development may impact that population. The minimum survey effort required to reliably estimate the population size of great crested newts in a waterbody is six site visits in suitable weather conditions. These must also be undertaken between mid-March and mid-June.

Accordingly, six on-site surveys of Pond 1, comprising bottle trapping, torch surveys and egg searches, were undertaken under the conditions detailed in Table 2.2, below.

Table 2.2: The conditions under which each survey visit was undertaken.

Date and visit No.	Air Temperature (°C) Evening	Water Temperature (°C) Evening	Weather conditions (precipitation/wind)
1. 22/04/2024	8.5˚ start 8.0˚ finish	7.5˚ start 7.5˚ finish	Dry with no wind
2. 02/05/2024	12.5˚ start 12.5˚ finish	11.0˚ start 11.0 ˚ finish	Mild and no wind
3. 08/05/2024	13.0˚ start 13.0˚ finish	11.0˚ start 10.0˚ finish	Overcast and no wind
4. 15/05/2024	15.0˚ start 14.5˚ finish	12.5˚ start 11.5˚ finish	Warm and light wind

5. 22/05/2024	15.0˚ start 14.5˚ finish	12.5˚ start 11.5˚ finish	Warm and light wind
6. 02/06/2024	15.0˚ start 14.5˚ finish	12.5˚ start 11.5˚ finish	Warm and light wind

During the surveys, the turbidity and vegetation cover was estimated and scored on a scale of 1 (clear/no vegetation) to 5 (very turbid/pond obscured by vegetation).

The surveys were undertaken in accordance with the methodology detailed within *Great Crested Newt Conservation Handbook* (Langton, Beckett and Foster, 2001). The surveys were not affected by any seasonal, climatic or other material limitations.

3. Results

3.1. Desk Study

Local records of great crested newt were retrieved during the desk study (c. 1988; ~369m from the site boundary) and there are two ponds within 250m of the site boundary (see Figure 3.1). Further, the site is within an area much of which is defined as *Potential Habitat for Great Crested Newt* per *DataMapWales* (Welsh Government, 2021).

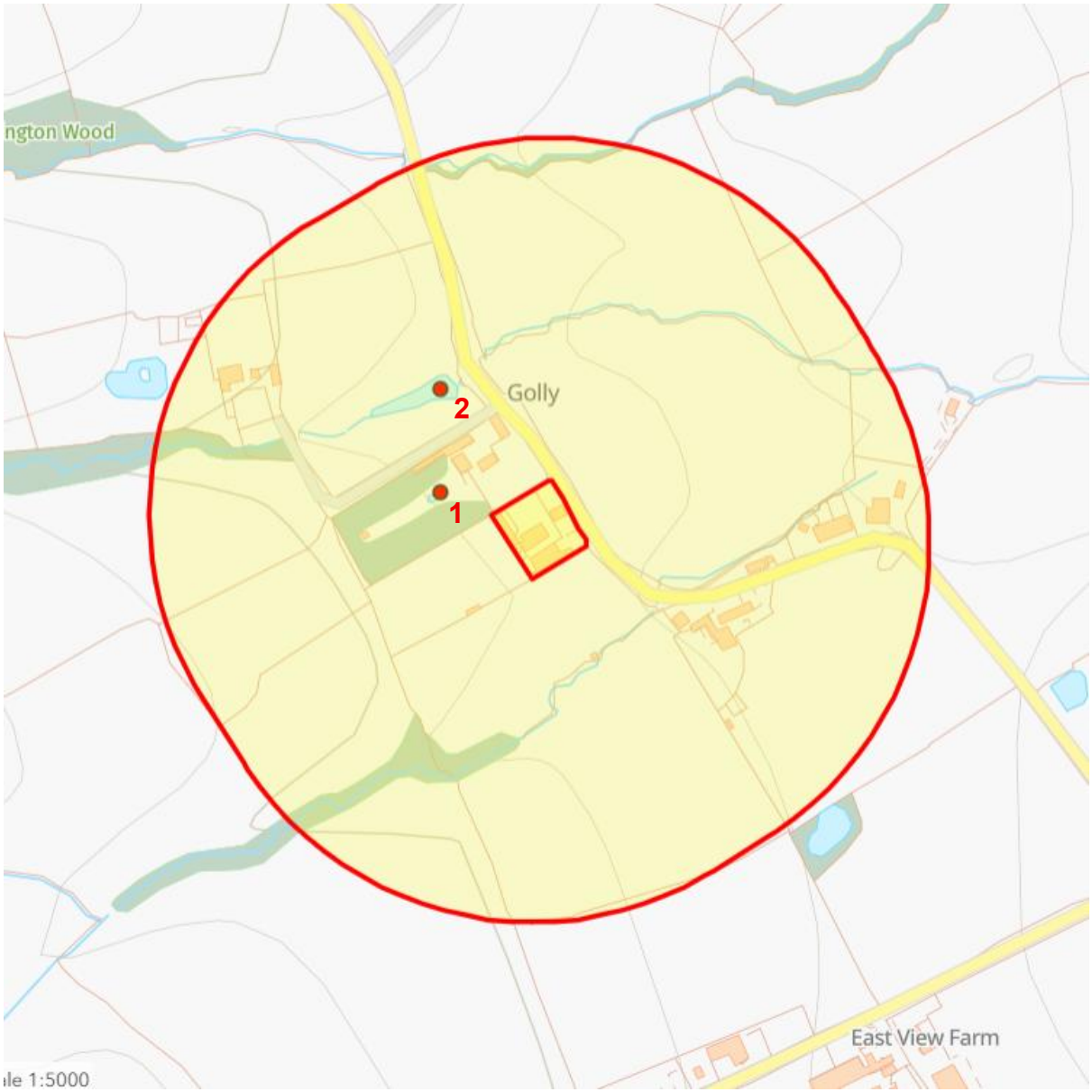


Figure 3.1: A 1:5,000 map showing all ponds within the 250m zone of influence.

3.2. Habitat Suitability Assessment (Great Crested Newts)

3.2.1. Pond 1

Pond 1 is situated in the garden area of the neighbouring dwelling, ~40m from the site boundary. It is approximately 80m². The pond was assessed as likely to never dry; the water quality was found to support an abundant and diverse invertebrate community; less than half the pond was found to be shaded by bankside vegetation; both fish and waterfowl were found to be absent; the terrestrial habitat around the pond was found to offer good opportunities for foraging and shelter; and there is abundant but not crowded marginal and aquatic vegetation present. Accordingly, the pond was categorised as offering excellent pond suitability for great crested newt (see Figure 3.2 and Table 3.1).



Figure 3.2: Pond 1.

Table 3.1: Habitat Suitability Index (Pond 1).

Category	HSI Value	HSI Score
Geographic Location	Optimal	1.00
Pond Area	80m^2	0.20
Pond Permanence	Never	0.90
Water Quality	Good	1.00
Shade	40%	1.00
Waterfowl Effect	Absent	1.00
Fish Presence	Absent	1.00
Pond Density	>4/km	1.00
Terrestrial Habitat	Good	1.00
Macrophyte Cover	60%	0.70
Result	**Excellent**	**0.81**

3.2.2. Pond 2

Pond 2 is situated further to the north, ~85m from the site boundary. It is approximately 700m². The pond was assessed as likely to never dry; the water quality was found to be clearly polluted with slurry run-off; only a small part of the pond was found to be shaded by bankside vegetation; fish were found to be absent, although extensive waterfowl and cattle poaching was evident; the terrestrial habitat around the pond was found to offer some opportunities for foraging and shelter; and there is some marginal and aquatic vegetation present. Accordingly, the pond was categorised as offering poor pond suitability for great crested newt (see Figure 3.3 and Table 3.2).



Figure 3.3: Pond 2.

Table 3.2: Habitat Suitability Index (Pond 2).

Category	HSI Value	HSI Score
Geographic Location	Optimal	1.00
Pond Area	700m^2	1.00
Pond Permanence	Never	0.90
Water Quality	Bad	0.01
Shade	30%	1.00
Waterfowl Effect	Major	0.01
Fish Presence	Absent	1.00
Pond Density	>4/km	1.00
Terrestrial Habitat	Moderate	0.67
Macrophyte Cover	20%	0.50
Result	**Poor**	**0.35**

3.3. Presence/Absence Surveys

Surveys of Pond 1 (each comprising bottle trapping, torch surveys and egg searches) were undertaken on the 22nd of April, 02nd of May, the 08th of May, the 15th of May, the 22nd of May and the 02nd of June 2025.

The pond conditions during each survey are provided in Table 3.3, below.

Table 3.3: The pond conditions during the surveys.

Date	Vegetation Cover (1 to 5)	Turbidity (1 to 5)
22/04/25	4	4
02/05/25	4	4
08/05/25	4	4
15/05/25	4	4
22/05/25	4	5
02/06/25	4	5

The results of each of the surveys undertaken are provided in Table 3.4, below.

Table 3.4: Summary of Results.

Date	Bottle Trapping	Torch Surveys	Egg Searches
22/04/25	2 SN F	1 SN F	-
02/05/25	1 SN F and 1 SN M	1 SN M	-
08/05/25	2 SN F	-	-
15/05/25	1 GCN M	-	-
22/05/25	1 SN F	-	-
02/06/25	1 SN F	-	-

Key: GCN = Great Crested Newt (*Triturus cristatus*)
SN = smooth newt (*Lissotriton vulgaris*)
PN = Palmate Newt (*Lissotriton helveticus*)

F = Female; M = Male; J = Juvenile

4. Impact Assessment

Great crested newts have been confirmed as present within Pond 1, ~40m from the site boundary. The proposed works involve the redevelopment of the whole ~0.27ha site.

To assess the risk of committing an offence in relation to great crested newt the Natural England Great Crested Newt Licence rapid assessment tool has been used (see Table 4.1). This assessment assumes no mitigation measures are put in place for the works.

Table 4.1: Natural England Rapid Risk Assessment Tool

Component	**Likely effect**	**Notional offence probability score**
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.5
Land 100-250m from any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.1
Land >250m from any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.005
Individual great crested newts	No effect	0
	Maximum:	0.5
Rapid risk assessment result:	**AMBER: OFFENCE LIKELY**	

Accordingly, it is considered likely that, in the absence of mitigation, the development of the site would result in an offence being committed.

N.B: Great crested newts are afforded full protection under Schedule 5, Section 9 of the Wildlife and Countryside Act 1981 *(as amended), under Schedule 2 of the* Conservation of Habitats and Species Regulations 2010 *(as amended), and under Regulation 39 of the* Habitat Regulations 2017*. Under these acts, it is an offence to deliberately or recklessly disturb, capture, injure or kill great crested newts; deliberately or recklessly damage, destroy or obstruct access to any great crested newt breeding site or place used for shelter or protection; to keep, transport, sell or exchange or to possess or control any live or dead specimen or anything derived from the species; to otherwise impair their ability to survive, breed, reproduce, hibernate or migrate; or to otherwise affect significantly the local distribution or abundance of the species, or damage or destroy a breeding site or resting place of the species. These provisions apply to all life stages of the species, including eggs.*

5. Required Actions

A European Protected Species Mitigation License (EPSML) will be required before site works can commence.

A method statement, bespoke to the project, will need to be submitted in support of the application for an EPSML. This will need to include suitable reasonable avoidance measures which will be adopted to mitigate the risk of disturbance or harm to great crested newts during or following the works, as well as how compensatory habitat is to be provided for any lost.

In the case of this project, it is expected that this will include the following:

- The installation of suitable temporary amphibian fencing around the site/works area, prior to the commencement of and for the duration of all other site works.

- The use of drift fencing and pitfall traps to remove any great crested newts (or other herpetofauna) from the site during the period between when the fencing is installed and when the site works commence.

- The phased removal of buildings and spoil under ecological supervision, only once the trapping works have been completed.

- The provision of dedicated suitable refugia/hibernacula for those to be lost.

As a requirement of the license, a suitably qualified ecologist will need to be appointed as the site ecologist (the licensed ecologist) for the duration of the project.

A European Protected Species Mitigation License (EPSML) will be required before site works can commence.