



GREAT CRESTED NEWT REASONABLE AVOIDANCE MEASURES

BROAD OAK FARM BARNs, ROSSETT

P/2018/0888 Condition 19

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Date	14-09-2023
Report Reference	BRO_R005
Version	V2
Status	FINAL

Contents

1	INTRODUCTION	3
1.1	Background Information	3
1.2	Legislation.....	3
1.3	Method Statement Objectives	4
2	REASONABLE AVOIDANCE MEASURES – MAIN DEVELOPMENT	5
3	REASONABLE AVOIDANCE MEASURES – ROAD RE-ALIGNMENT.....	7
3.1	Introduction	7
4	HABITAT CREATION	9
4.1	Amphibian Hibernaculum.....	9
4.2	New Hedgerow Planting	10
5	REFERENCES	12

1 INTRODUCTION

1.1 Background Information

- 1.1.1 Sambrook Associates Ltd was instructed by COF Solutions to produce a Great Crested Newt *Triturus cristatus* Reasonable Avoidance Measures (RAMs) document to facilitate the discharge of Condition 19 of the planning consent reference P/2018/0888, for the development at Broad Oak Farm Barns, Rossett. The RAMs are required to protect great crested newts (GCN) and other amphibians from harm during the course of the development.
- 1.1.2 The farmstead comprises a range of barns that will be either demolished or converted in line with the approved plans. The development includes the re-alignment of the access road, Llyndir Lane to allow a visibility splay for two-way access to and from the development.
- 1.1.3 Erap undertook surveys of the nearby ponds in 2008 which identified the presence of great crested newts in a pond 0.22km from the development boundary. Bowland Ecology undertook a habitat assessment at this pond in 2016.
- 1.1.4 The Reasonable Avoidance Measures are based upon those outlined by Bowland Ecology but further detail and scope is provided by Rebecca Sambrook MCIEEM (a Full Member of the Chartered Institute of Ecology and Environmental Management (CIEEM)) who adheres to that organization's Code of Professional Conduct. Rebecca has been designing and conducting surveys, assessing impacts and designing appropriate mitigation, compensation and enhancement for 20 years, involving hundreds of projects. Rebecca is a NRW licensed GCN surveyor (S090884/1).
- 1.1.5 This document also contains information in regard to the timescales and details of the hedgerow replacement, as per comments received from the LPA on the previous submitted version of this report.

1.2 Legislation

- 1.2.1 Great crested newts (GCN) are European Protected Species (EPS) and they and their habitat are fully protected under national (Wildlife & Countryside Act 1981 (as amended)) and European law (The Habitats and Species Regulations 2017 (as amended)). The combined legislation makes it illegal to:
 - intentionally or deliberately capture, kill or injure a great crested newt;
 - intentionally or recklessly damage, destroy or obstruct access to any place used for shelter and protection including resting and breeding places, whether occupied or not;
 - deliberately, intentionally or recklessly disturb a great crested newt when in a place of shelter;
 - possess a great crested newt, or any part of it, unless acquired lawfully;
 - sell, barter, exchange or transport or offer for sale great crested newts or parts of them.

- 1.2.2 Anyone carrying out activities which may affect EPS must consider the presence of EPS, their breeding sites and resting places. Best practice guidance is available from Natural Resources Wales and Natural England, which advise on assessing for the presence of EPS, and the possible impact of operations (including strategies for avoiding committing offences). If an offence cannot be avoided, then a derogation licence should be sought from Natural Resources Wales.

1.3 Method Statement Objectives

- 1.3.1 The objectives of this Method Statement are to:

- Avoid committing an offence under the above legislation; and,
- Ensure that the favourable conservation status of the species concerned is maintained.

- 1.3.2 Any development related activities on the Site, such as vegetation clearance or excavations may potentially affect GCN. As a result, safeguards must be implemented to protect this species and other amphibians and the Method Statement below details measures to be implemented to ensure these objectives are achieved. If these measures are followed then both objectives will be achieved.

2 REASONABLE AVOIDANCE MEASURES – MAIN DEVELOPMENT

2.1.1 The following strategy will be implemented during construction to avoid effects on GCN that may venture on or near the site during construction.

- Before construction works commence, all contractors will receive a 'tool-box' talk from the Appointed Ecologist to make them aware of the potential for amphibians, legislative context and procedure if amphibians are encountered during works. A fact sheet will be installed on the site information board as a reminder of the responsibilities all contractors have whilst working on the site;
- The appointed licensed ecologist will undertake a walk-over of all potential great crested newt habitat, noting any that require a destructive search by the ecologist prior to removal or dismantling.
- Following the toolbox talk and ecologist walk-overs, the site operatives will be responsible for checking their working areas for that day prior to the commencement of any works to check for the presence of amphibians, and will keep a watching brief during construction works on site for GCN.
- Any brash/log/rubble piles are to be dismantled by hand, following a destructive search by the appointed licensed ecologist, and be taken out of the working area for use to create habitat piles in suitable locations outside of the proposed works location. Any amphibians found will be relocated to a safe and suitable area.
- If clearance of tall ruderals, woodland, scattered scrub, hedgerows is undertaken during the active season for GCN (March to November), all vegetation within any working areas, where required, will be cut using hand held machinery (i.e. strimmer, brushcutter, chainsaw) to a height of no less than 150 mm (please note, this can only be undertaken if the area has first been checked for nesting birds by the Appointed Ecologist - vegetation clearance can only commence if there are no nests present). All arisings are to be removed off site or placed in a skip, i.e. not left on the ground within the work area.
- The working area must be left for a minimum of two days to allow any amphibians that may be present to move out of the immediate area. A second cut using hand held machinery (i.e. strimmer or brushcutter) should be then carried out to a height of 50 mm.
- Hand search for amphibians within the cleared areas must be completed by the appointed licensed ecologist or another suitably qualified ecologist after vegetation strimming is completed and immediately prior to the commencement of construction works.
- Any excavations will be backfilled, covered over using plywood (sealed on all sides with sand or soil), or a means of escape provided (e.g. plank) at the end of each day in order to prevent amphibians becoming stranded within trenches.
- Any culverts, pipes or similar whether on storage or in-situ will be capped so GCN/amphibians cannot enter them.

- All works, stockpiling of materials or storage of machinery must be contained within sub-optimal habitat (bare ground or hard standing), and/or raised off the ground;

2.1.2 In the event that any amphibians are encountered during the works, all works must cease immediately and the ecologist contacted for further advice. Any amphibians will be moved by a suitably qualified ecologist to a safe and suitable location outside the works area; they will be moved to the newly constructed hibernacula (see Section 4 for location). Natural Resources Wales will be contacted for advice, if required and a decision made in respect of great crested newts as to whether a derogation licence is required to complete the remaining works.

3 REASONABLE AVOIDANCE MEASURES – ROAD RE-ALIGNMENT

3.1 Introduction

- 3.1.1 The required road re-alignment will result in the removal of a section of the existing road hedge, with a new replacement hedge planted approximately 2 metres to the west of the existing alignment. It is unlikely that the hedgerow would be used by great crested newts since it does not lead to any significant habitats that could be used by GCN, similarly, the woodland around the pond to the south provides sufficient cover for hibernation so it is unlikely GCN would use the road hedgerow as a hibernaculum.
- 3.1.2 The road re-alignment works are proposed to commence in April 2023 and be completed by end of October 2023.
- 3.1.3 To avoid the (albeit low) potential for GCN to be harmed during the hedgerow removal and planting, the following strategy will be taken forward. This strategy considers two seasonal constraints – the presence of nesting birds during March to August inclusive and the potential presence of GCN during spring and autumn migration and winter hibernation.
- Before construction works commence, all contractors will receive a ‘tool-box’ talk from the Appointed Ecologist to make them aware of the potential for amphibians, legislative context and procedure if amphibians are encountered during works. A fact sheet will be installed on the site information board as a reminder of the responsibilities all contractors have whilst working on the site.
 - Outside of the nesting bird season (October-March), in the winter season prior to hedgerow removal, the hedgerow will be cut using hand held machinery (i.e. hedge trimmer and/or chainsaw) to a height of no less than 150 mm. All arisings are to be chipped and removed off site or placed in a skip, i.e. not left on the ground within the work area. This will render the hedgerow unsuitable for nesting birds.
 - During the period May to July, when GCN are expected to be in ponds, the hedgerow can be dug out under the supervision of the licensed ecologist. The removal process will work systematically, with the ecologist checking the working area immediately prior to excavating the hedgerow roots. Each section of removed hedgerow root will be inspected to ensure no GCN are present. The roots will be placed to one side for a minimum of 2 hours and then disposed of in a skip.
 - The new hedgerow will be planted in the late winter/early spring when there are no forecast frosts. The hedgerow planting strip will be prepared in sections and the licensed great crested newt ecologist will undertake a walkover survey/hand search prior to works commencing. Following this, the contractor will undertake a watching brief during the course of the hedgerow planting and will cease work and contact the ecologist should they encounter a GCN.
 - Excavations will be backfilled immediately, covered over using plywood (sealed on all sides with sand or soil), or a means of escape provided (e.g. plank) at the end of each day in order to prevent amphibians becoming stranded within trenches;

- All works, stockpiling of materials or storage of machinery will be contained within sub-optimal habitat (bare ground or hard standing), and/or raised off the ground;

3.1.4 In the event that any amphibians are encountered during the works, all works must cease immediately and the ecologist contacted for further advice. Any amphibians will be moved by a suitably qualified ecologist to a safe and suitable location outside the works area; they will be moved to the newly constructed hibernacula (see Section 4 for location). Natural Resources Wales will be contacted for advice, if required and a decision made in respect of great crested newts as to whether a derogation licence is required to complete the remaining works.

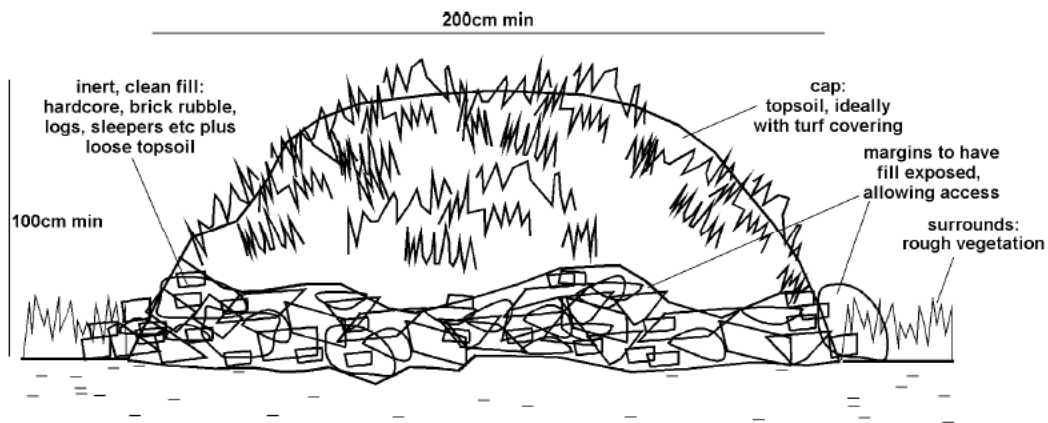
4 HABITAT CREATION

4.1 Amphibian Hibernaculum

- 4.1.1 An artificial amphibian hibernaculum will be constructed to provide enhancement of the terrestrial opportunities for amphibians including great crested newts to the peripheries of the site and also provide a safeguarded habitat throughout construction. Any amphibians found during the course of the works will be moved to the hibernacula at this location. The design of the hibernacula will be in accordance with the design provided in Chapter 8 (page 42) of the Great Crested Newt Mitigation Guidelines, 2001. See below.

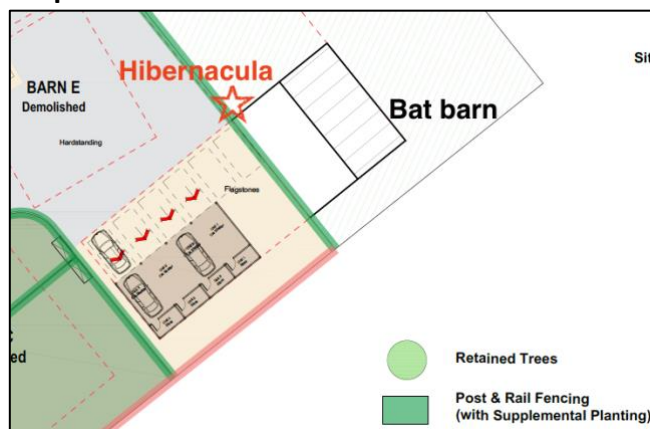
Figure 3: Suggested hibernaculum design

This design mimics artificial and natural conditions in which great crested newts have frequently been found over-wintering. Dimensions should not be below 2m length x 1m width x 1m height. The illustrated design would be suitable for locating on an impermeable substrate. On free-draining substrates, the design is largely similar but the bulk of the fill is sited in an excavated depression in the ground. Hibernacula should ideally be positioned across a site, both close to and distant from breeding ponds, always in suitable terrestrial habitat and above the flood-line.



- 4.1.2 The hibernacula will be constructed using reclaimed building materials such as brick and timber, and logs, brash, cuttings and soil/moss reclaimed from the initial site clearance. The hibernacula will be located along the eastern boundary of the site, near to the replacement bat barn and adjacent to the supplementary planting along the post and rail fence line, so as not to interfere with the area being handed back to agriculture.

Proposed Hibernaculum Location:



4.2 New Hedgerow Planting

- 4.2.1 The current hedgerow is dominated by hawthorn *Crataegus monogyna*. The new hedgerow will comprise a more diverse mix to enhance the biodiversity value of this linear feature. A range of flowering and fruiting species are proposed that will provide additional food resources for a range of species.
- 4.2.2 The following species will form hedgerow planting at this site:
- 25% hawthorn *Crataegus monogyna*;
 - 20% hazel *Corylus avellana*;
 - 20% blackthorn *Prunus spinosa*;
 - 15% holly *Ilex aquifolium*;
 - 10% elder *Sambucus nigra*;
 - 5% dog rose *Rosa canina*; and
 - 5% field maple *Acer campestre*.
- 4.2.3 The exact timing of the proposed hedgerow planting will be dependent on the ground conditions, but planting will likely take place in March 2024 or October 2024. It is expected that ground conditions and climate will allow for planting at this time of year, and this will allow the plants more time to establish a network of feeder roots before the onset of spring. Planting will avoid freezing and water-logged conditions.
- 4.2.4 **Ground Preparation:** a 1m wide strip will be screefed to remove all existing vegetation along the planting strip. Where necessary existing weeds will be treated with a herbicide and a suitable period allowed to elapse, as recommended by the manufacturer, for the herbicide to take effect. All extraneous matter such as plastic, wood, metal and stones greater than half brick size will be removed from the planting stations and disposed of offsite.
- 4.2.5 **Planting:** cell-grown hedge plants (minimum 40-60cm stock) to be planted in a double staggered row at the rate of 9 plants per linear metre (using T-, H- or L shaped or straight notches) using spades of a design suitable for this purpose. Slots shall not be made using a planting spade. The planting notches must be vertical and deep enough for the roots to hang freely, with the transplant being planted so that the root collar is exactly level with ground surface. The notch must then be closed and the soil will be well firmed around the roots in line with the guidelines as set out in BS 4428 (1989). All hedging plants will be protected from rabbit damage using approved proprietary 600mm plastic guards, supported with 900 mm 12/14lb canes as advised by the manufacturer. The planting strip is to be covered in mulch to suppress weed growth. Species to be planted will be of local provenance. All plants shall be watered in at the end of each day of planting.

- 4.2.6 **Management:** In the initial 12 month establishment period, the hedgerow planting will be kept weed-free using approved herbicides where necessary. Mulch is to be topped up. The herbicide handbook (Natural England) provides guidance on appropriate herbicide use in relation to nature conservation works.
- 4.2.7 In years one to three, new planted sections of hedgerow will be lightly trimmed to encourage a dense growth. After this period it is recommended that the hedgerows should be maintained on a two or three year cycle, with cutting undertaken in late January or February, allowing fruits to be available to wildlife in the autumn.

5 REFERENCES

Bowland Ecology. 2016. *Broad Oak Farm – Ecological Appraisal*

ERAP. 2008. *Broad Oak Farm – Ecological Survey and Assessment*

English Nature. 2001. *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough