Great Crested Newt Habitat Suitability Assessment and mitigation strategy

Erection of an agricultural machinery storage building and all associated works | Woodgate Cottage, Hope Bowdler, Church Stretton, Shropshire SY6 7JB - prepared by Mr Robert Thorne of Churton Ecology on 09/11/23

Background

Churton Ecology was instructed to carry out a Great Crested Newt Habitat Suitability Assessment of land and ponds at Woodgate Cottage.

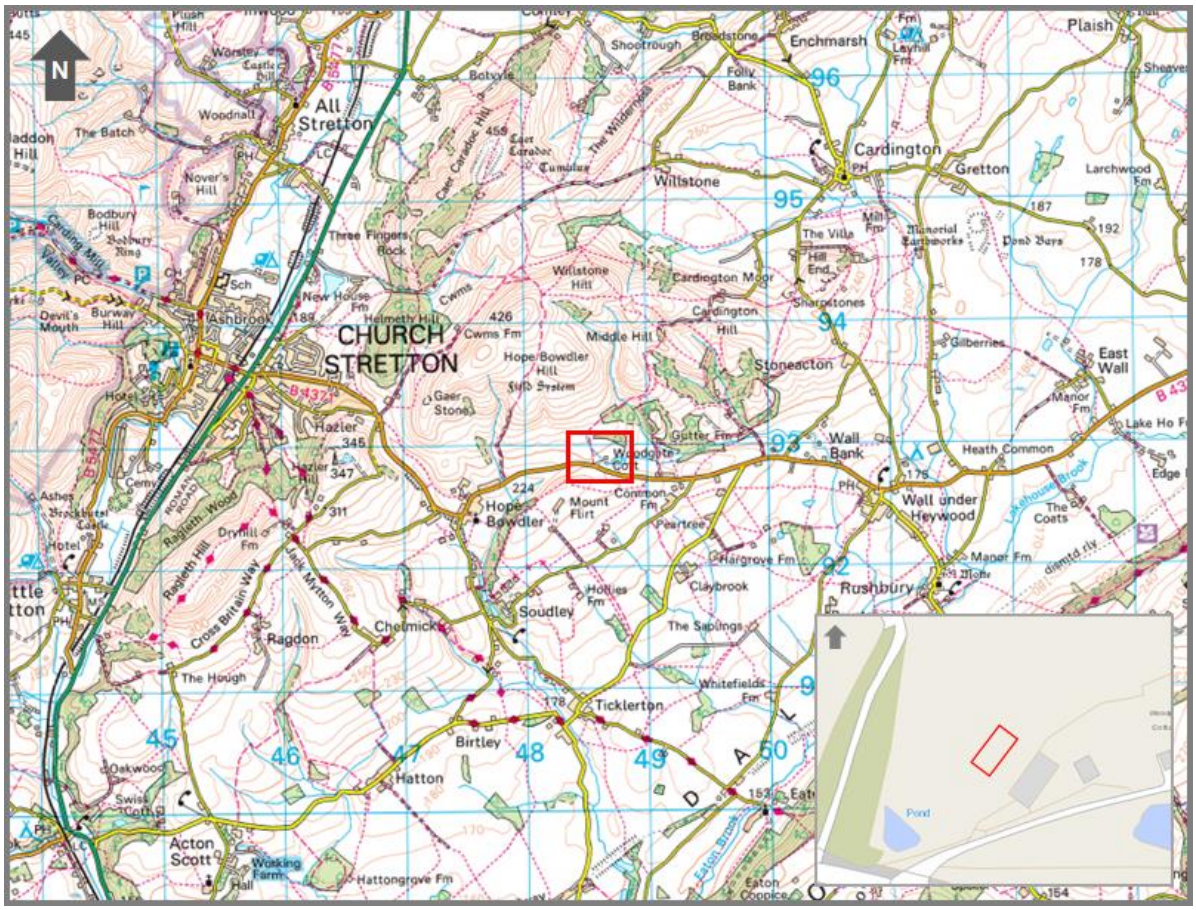

Fig 1: Site location and layout
OS map licence no. 100048619

The proposal is for the erection of an agricultural machinery storage building and associated works (proposed building location at Grid Ref: SO4858692883).

The site supports intensively grazed, semi-improved grassland.

Methodology

Desktop search

Ponds and other potential breeding habitats were sought within 250m of the site using OS maps and aerial photographs.

Breeding habitat suitability assessment

Four ponds were assessed for their breeding habitat suitability using the Habitat Suitability Index (HSI) method described by Oldham et al (2000).

Terrestrial habitat suitability assessment

The habitats on and adjacent to the site were assessed for their suitability to provide places of rest or shelter (referred to as terrestrial habitats). The potential for newts to traverse the site and any dispersal limitations that might interrupt such movements were also considered.

Results

Desktop search

The site is located in the known geographic range for this species and the species is widespread in this part of the county. Given the scale of the development, only ponds within 250m of the site were considered to be potentially relevant to the proposal. Four mapped ponds were identified within this area. There was nothing to indicate the potential presence of any unmapped ponds (from aerial photography).

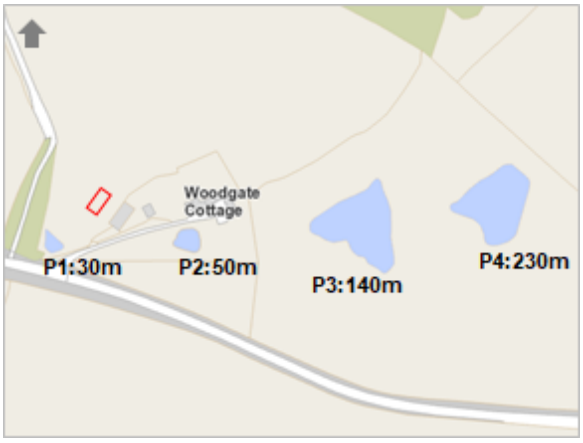

Fig 2: Pond location plan (with site in red)

P1: Example of the poor terrestrial habitat on-site

Terrestrial habitat suitability assessment

The site supports approximately 170m^2 of poor quality terrestrial habitat with no opportunities for animals to rest or shelter.

Aquatic (breeding) habitat suitability assessment

Pond P1 is small and contains a few stocked fish. Even though no fish were noted during the survey the turbidity of the water supports the homeowner's assertion that fish are present (since there are no waterfowl). The pond scores 'below average' on the habitat suitability index which would typically indicate likely absence or presence at a low population density.

P2: Pond P1: viewed from the N, looking SSE

Habitat Suitability Index		Pond P1: SO4856092850
Distance from the site	Circa: 30m SW	
HSI Categories	HSI Values	HSI Score
Location	optimal	1
Pond area	100m²	0.2
Pond drying	never dries	0.9
Water quality	poor	0.33
Shade	50%	1
Fowl	absent	1
Fish	minor	0.33
Pond count	11	0.95
Terrestrial habitat	poor <25% in 250m surround	0.33
Macrophytes	30%	0.6
Result	**Below Average**	**0.57**

Fig 3: Pond P1: 'Below Average' HSI result

Pond P2 contains a reasonable density of stocked fish and one or two were seen rising during the survey. There is also some evidence of minor waterfowl use with vegetation cropping occurring in the margins. The pond scores 'poor' on the habitat suitability index which would typically indicate likely absence. Since the pond has no sheltered areas suitable for Great Crested Newts to breed the presence of this species can be discounted with a high degree of confidence.

P3: Pond P2: viewed from the SE, looking WNW

Habitat Suitability Index		Pond P2: SO4865292853
Distance from the site	Circa: 50m ESE	
HSI Categories	HSI Values	HSI Score
Location	optimal	1
Pond area	200m²	0.4
Pond drying	never dries	0.9
Water quality	poor	0.33
Shade	50%	1
Fowl	minor	0.67
Fish	major	0.01
Pond count	9	0.9
Terrestrial habitat	poor <25% in 250m surround	0.33
Macrophytes	20%	0.5
Result	**Poor**	**0.40**

Fig 4: Pond P2: 'Poor' HSI result

Ponds P3 and P4 contain an abundance of stocked fish (the pond is sometimes used for fishing) and many smaller silver fish species were seen rising during the survey (carp are also present). There is also some evidence of minor waterfowl use with vegetation cropping occurring in the margins and along the banks. The ponds score 'poor' on the habitat suitability index which would typically indicate likely absence. Since the ponds have no

sheltered areas suitable for Great Crested Newts to breed the presence of this species can be discounted with a high degree of confidence.

P4: Pond P3: viewed from the NE, looking SSW

Habitat Suitability Index		Pond 3: SO4876992865
Distance from the site	Circa: 140m E	
HSI Categories	HSI Values	HSI Score
Location	optimal	1
Pond area	2000m²	0.8
Pond drying	never dries	0.9
Water quality	moderate	0.67
Shade	30%	1
Fowl	minor	0.67
Fish	major	0.01
Pond count	13 (optimal)	1
Terrestrial habitat	poor <25% in 250m surround	0.33
Macrophytes	10%	0.4
Result	**Poor**	**0.46**

Fig 5: Pond P3: 'Poor' HSI result

P5: Pond P4: viewed from the E, looking W

Habitat Suitability Index		Pond 4: SO4885892879
Distance from the site	Circa: 230m E	
HSI Categories	HSI Values	HSI Score
Location	optimal	1
Pond area	1,700m²	0.85
Pond drying	never dries	0.9
Water quality	moderate	0.67
Shade	30%	1
Fowl	minor	0.67
Fish	major	0.01
Pond count	16 (optimal)	1
Terrestrial habitat	poor <25% in 250m surround	0.33
Macrophytes	10%	0.4
Result	**Poor**	**0.46**

Fig 6: Pond P4: 'Poor' HSI result

Evaluation and discussion

The presence of breeding Great Crested Newt is considered unlikely (particularly in ponds P2, P3 + P4) and the site supports just 170m^2 of low/no suitability sheltering/resting habitat. Owing to the 'below average' breeding habitat suitability of pond P1 it can be predicted with a reasonable degree of certainty that any resident population potentially present within the zone of influence of the site is likely to be small. As a consequence there would be a reduced dispersal rate, in percentage terms, and, therefore, a lower likelihood of development related offences occurring.

Great Crested Newt (sheltering and/or migrating) is unlikely to be an important ecological feature of the site; however, some precautionary mitigation measures have been recommended since the movements of Great Crested Newts can be unpredictable.

Impact Assessment

Significance of effects prior to mitigation

Given the scale of habitat disturbance proposed, it is considered unlikely that the development would result in the disturbance, injuring, killing or capture of a Great Crested Newt and there should be no damage, destruction or deterioration of a resting site, obstruction of a migration route or (significant) loss of foraging habitat.

Significance of residual effects after mitigation

With precautionary mitigation measures in place there should be no significant residual adverse effect on Great Crested Newts and the chance of a legal offence occurring will be negligible.

Great Crested Newt legislation

Great Crested Newt is protected under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and The Wildlife and Countryside Act 1981 (as amended). Essentially this makes it unlawful to; deliberately capture, injure or kill a Great Crested Newt; intentionally or recklessly disturb a Great Crested Newt whilst it uses a breeding or resting site or deliberately cause disturbance to a Great Crested Newt or group of Great Crested Newts; damage or destroy a breeding site or resting place; intentionally or recklessly obstruct access to any structure or place used by newts for the purpose of shelter or protection.

Mitigation strategy

Churton Ecology does not consider it necessary to survey the ponds any further or to apply for a mitigation licence to develop the site. If, for example, a Great Crested Newt were found to be present during the enabling or construction phases, then works would cease and the site could be registered under the District Level Licensing Scheme (DLLS) with minimal delays to the project.

Reasonable Avoidance Mitigation Measures (RAMMs) will aim to reduce the potential for impacts (aiding legal compliance) by regulating the storage of building materials and minimising opportunities for animal disturbance, capture and harm. Provided entrapped animals can quickly escape unaided there should be little potential for (deliberate) capture, or any need for subsequent handling or transportation and release (an offence without a derogation licence). Additionally the level of disturbance incurred by the fall and escape

might be equal to that which an animal might occasionally experience in its wild or natural habitat (i.e. falling into a dry ditch and climbing out).

It has been agreed with developer/applicant that all ground-works will be carried out during the winter period (between November 1st and February 29th) when newts are dormant and less inclined to make wide ranging migrations; however, the means by which this approach can be achieved will depend entirely on the planning situation. If the works can be carried out during this (winter) period then only points i, ii, iii, vi, vii and viii below would need to be implemented.

The following working methods must be adhered to for the full duration of the enabling and construction phases:

i) The ground-works period will be carefully planned to run in a quick and orderly succession with the absolute minimum of delays incurred.
ii) Excavated spoil must be removed, backfilled, sealed or compacted before nightfall in its permanent location.
iii) No spoil or other materials will be pushed into more suitable fringe habitats and there will be no associated damage to these areas (through the manoeuvring of heavy machinery etc.)
iv) Trenches and pits will be opened, closed and/or backfilled during the same day wherever possible. Where this is not possible any loose soil lining the trench or pit base will be sealed before nightfall and provided with shallow sloping ramps to allow any trapped amphibians a means of escape.
v) Where excavations are to remain open for longer periods of time the trench lip will be rebated and a covering board slotted in so that this lies flush at ground level. Once complete the board edges will be covered with a single course of sand bags.
vi) Construction materials provide objects under which migrating newts can shelter, particularly if stockpiled for extended periods of time. Therefore, materials will be stored on i) raised palettes or timber bearers ii) in trailers, skips or raised containers iii) in raised ton bags or tarpaulins folded up and secured around the edges.
vii) All excavations that have been left open overnight must be searched by a member of construction personnel the following morning prior to any infilling operations.
viii) If any newt is encountered then works must cease immediately and a licensed ecologist will be contacted to identify the species present. If it is confirmed that a Great Crested Newt has been encountered, then there is a legal requirement for the works to cease and Natural England (NE) may need to be notified. In this eventuality

the site would be quickly registered under the District Level Licensing Scheme (DLLS).

A photographic and written audit of all these stages is **recommended** in the event that the site is inspected by the LPA, NE or the Police.