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1: Background

1:1 Camber Ecology were commissioned to conduct a Great crested newt survey on a pond known as The Long pond, East Hoathly. An ecological survey was carried out by a local ecologist in September 2009. Great crested newt eggs were identified by SARG (Sussex Reptile and Amphibian Group) in a previous survey conducted in 2005. No further survey work has been carried out since then. The site was gifted as common land to East Hoathly and Halland Parish Council 15 years ago for use as public open space. The pond known as Long pond is situated on the outskirts of East Hoathly and lies immediately adjacent to London Road.

1:2 The survey has been requested by the Wealden District Council to accompany a planning proposal for change of land usage. It is proposed to lift a 106 agreement and convert the land into allotments. In respect of protected species legislation, licensing and mitigation it is important to appreciate that no distinction is made between commercial or non commercial ventures. In terms of Great crested newt mitigation, the *'term development is used to cover all common forms of land use change or operations that have the potential to negatively impact on Great crested newt populations'*.(Great crested newt mitigation Guidelines)

1:3 There are in fact two ponds, one immediately across the road to the breeding pond and it is possible that there is some passage of water between the two. However, most of this other pond is inaccessible and also of unknown depth (see fig: 1 below). An attempt was made to place bottle traps for one night. This was only possible by walking across a floating bed of Reed-mace (*Typhus sp*). However, upon retrieval it was felt any further work was unsafe so efforts to survey on this pond were abandoned wholly on health and safety grounds. The local residents apparently refer to this pond as deep and dangerous!

Fig 1 Affectionately known by local people as deep and dangerous, this smaller pond is located south of Long pond, immediately across London Road.



The pond above is surrounded for much of its circumference by dense a dense thicket of shrubs and access is only really practical from the southern side.

1:4 Long pond is approximately sixty metres long, fifteen metres wide at the eastern end and narrows down to about four metres at the western end. Access is from London Road; the pond lies immediately adjacent to London Road. A thin shelter belt of semi mature trees and shrubs provides a visual barrier between the road and the southern pond margin. The photograph below shows the pond looking east from the footbridge that leads to land at the rear of Long pond.

Fig 2 View of Long Pond looking eastward from the footbridge



1:5 The pond edge is very open at the eastern end with housing a few metres from the boundary (see fig: 3 below) The abundance of light allows a healthy swathe of emergent vegetation along the pond margin with Iris (*Iris pseudocorous*) and Pendulous sedge (*Carex pendula*) and a small stand of Reedmace (*Typhus sp*) to flourish

Fig 3 The eastern margin of the pond is open and light.



Scattered trees and shrubs line the northern bank of the pond but there are breaks in the woody vegetation; where breaks occur light influx has allowed stands of emergent vegetation (see fig: 4 below)

Fig 4 Occasional stands of emergent vegetation grow along the northern pond margin where gaps in the trees and shrubs allow some light in



1:6 Most of the habitat to the rear of Long pond was rough grassland, scrub and some regeneration of Oak and other tree saplings. In January this year (2010), some work was conducted using a machine digger. The shelter belt of trees around the boundary of the site has been unaffected by this work. This has had the effect of both removing a substantial amount of vegetation and inadvertently creating a number of habitat piles (see fig: 5 below). Herbaceous plants are now regenerating and there is some restoration of vegetative cover.

Fig: 5 Debris from winter clearance has provided habitat piles.



2: Aims of Survey

2:1 To determine presence or absence using currently accepted good standards of practice.

2:2 If Great crested newt found to be present, to inform an appropriate mitigation strategy that would form the basis of a European Protected Species license application.

3: Methodology

3:1 Three methods are normally favoured for Great crested newt surveys; these are bottle trapping, torching and egg search. In addition to these dip netting and searching under refugia can also be used. However, as with any survey the appropriate methodology must be chosen that accurately reflects conditions. In this case the water seemed to turbid (cloudy) to realistically employ torching on the first night. Current guidelines recommend that at least three survey methodologies be carried out at each visit; a minimum of four visits is required to survey for presence or absence. At least two of these should be conducted before the middle of May; if presence is found, six visits with three completed before mid May will be required. The survey visits were achieved within these time scales and three methods initially used on each visit. This had to be modified later on grounds of animal welfare. Water shrew were found trapped and dead in bottles so that method had to be dispensed with. Dip netting is not always favoured as it is less effective and disruptive, but does give a good overall impression of the quality of and diversity of invertebrate fauna in the pond. Dip netting was stopped after eggs were found on leaves at the bottom of the pond as it was not wished to dislodge eggs. Egg search was halted as soon as eggs were found to minimise disturbance. Artificial refuges were also placed around the edge of the pond but produced no positive findings.

3:2 In terms of constraints that may have adversely affected survey data, there were few of any significance. However, night time temperatures did fall below 5 degrees Celsius on just one of the bottle trapping nights. The decision was taken to include this session in data collation to ensure the first three visits were conducted by the middle of May. As it was, a reasonable return was still evident it was not possible to access the water's edge around the total perimeter of either pond, due to dense bramble scrub, or other vegetation. However, where access was possible, the density of bottle traps was doubled up to one every metre (recommendations suggest one trap every two metres). Thus overall, the density of traps was reasonably in keeping with current guidelines. As it was, about 60% of the pond edge was accessible. It is possible this may have influenced the final count. However, it is very unlikely to have had sufficient influence to change the population class assessment.

3:3 Egg searching was carried out by carefully checking for folded leaves characteristic of newts after retrieving bottles. The type of bottle used were standard ready prepared for use by a specialist ecological supplier and they were placed in the ponds using guidance from the Great crested newt Mitigation Manual to ensure animal welfare issues were adequately addressed. A standard bottle is shown below; the one in the photograph below (fig: 6) was used on this site and can be seen to contain Great crested newts.

Fig: 6 A standard bottle of the type used for Great crested newt survey work.



An air bubble was maintained in all traps and the duration of time that traps were left in the water for was well within current guidelines of good practice.

3:4 Dip netting was carried out using a robust professional net. Standard guidelines suggest there should be a minimum sampling rate of fifteen minutes per fifty metres of bank; in fact this was exceeded to give a more thorough search.

3:5 The fieldwork was carried out by Stephen Prosser Bsc (Hon.) Natural Sciences MIEEM of Camber Ecology Limited, a current Natural England all counties license to take and disturb Great crested newt is held by the surveyor. Camber Ecology Limited are grateful to Martin Usher for his assistance, Martin is holding the bottle trap in the above photograph and was working under Stephen Prosser’s license to gain experience for his own license application.

4: Results/ Conclusions

4:1 Survey data

Date	Species	Sex/age	Bottle number	Total Gcn count	Other methods/comments
09/05	Gcn	1 X adult Female	2		
	Gcn Palmate	1 X adult female 1 X adult female	6		Night time temperatures recorded above 5C
	Gcn	4 X adult female	19		
	Gcn	1 X adult female	26		
	Gcn	1 X adult female	28		
	Gcn	1 X sub adult female 3 X adult female	30		
	Gcn	1 X adult female	33		
	Palmate	1 X adult female	35		
	Gcn	1 X adult female	37		Gcn catches distributed widely around pond.
	Gcn	1 X adult male 1 X adult female	43	16	Egg search produced Gcn egg on bramble leaf Dip netting – no amphibians caught Great crested newt egg on submerged fallen leaf (bottom of pond)

Date	Species	Sex/age	Bottle number	Total Gcn count	Other methods/comments
10/05/10	Gcn	7 X adult female 3 X Adult male	N/A	10	Torching Weather conditions clear, light wind, water clarity poor Temperature at start of survey 6.7C Temperature at finish of survey 6.8C Start time 21:15 Finish time 22:00 Bottle traps set prior to commencing torch survey
	Palmate newt	1 X adult female	N/A		
	Palmate/Smooth ?	1			

Date	Species	Sex/age	Bottle number	Total Gcn count	Other methods/comments
11/05/10	Gcn	1 X adult female	11		Night time temperatures recorded at above 5C
	Gcn	2 X adult female	23		
	Gcn	1 X adult female	29		
	Gcn	1 X Adult female 1 X adult female egg laying	38		No other methods used. Dip netting potentially damaging to submerged eggs. On the return trip to reset bottles, water was considered to turbid to torch that evening.
	Gcn	2 X adult female	47		
	Gcn	1 X Adult female	50		
	Gcn	2 X adult female	51	11	

Date	Species	Sex/age	Bottle	Total Gcn	Other methods
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			number	count	used/comments
12/05/10	Gcn	1 X adult female	5		No other methods used
	Gcn	1 X adult female	7		
	Gcn	1 X adult female	8		
	Gcn	1 X adult female	12		
	Gcn	1 X adult female	16		
	Gcn	2 X adult female	18		
	Gcn	2 X adult female	39		
	Gcn	1 X adult female	48		
	Gcn	1 X adult female	49		
	Gcn	2 X adult female	50	13	Total count still comparable with other nights, despite lower temperatures. *

*Although temperatures were below the recommended minimum for setting bottle traps, it was decided to go ahead to ensure that the first three visits were compliant with the middle of May deadline as recommended (great crested newt Mitigation Guidelines); there was no assurance that temperatures would rise over the next few nights.

Date	Species	Sex/age	Bottle	Total Gcn	Other methods
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			number	count	used/comments
17/05/10					Torching (Bottle trapping abandoned after last session due to entrapment of 2 Water shrews; both found dead in bottles. Fatalities reported to natural England.)
	Gcn	10 X adult female 1 X adult male	N/A	11	Still, cloud cover 15% Start temperature 8.4C Finnish temperature 7.2C Start time 21:45 Finnish time 22:25
	Palmate/Smooth?	3 X adult female	N/A		Water clarity fair

Date	Species	Sex/age	Bottle number	Total Gcn count	Other methods used/comments
18/05/10	Gcn	11 X adult female 4 X sex unknown 1 X adult male	N/A	16	Torching Temperature at start 8.6C Temperature at Finnish 7.3C
	Palmate/Smooth?	7 X adult female			Clear, still night.
	Smooth	1 X adult male			Start time 22:30 Finnish time 23:00

Date	Species	Sex/age	Bottle	Total Gcn	Other methods
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			number	count	used/comments
31/05/10	Gcn	1 X adult, sex unknown	N/A	1	Torching Water clarity very poor. Data from this session compromised due to surface film.
	Palmate/Smooth ?	1 X adult female			Start time 22:15 Finish time 22:55 Still night, cloud cover Temperature at start 13.4C Temperature at finish 13C*

*Further checks on water clarity up until early June showed the surface film still present. Therefore it was not possible to conduct a further visit under ideal conditions. However, it was considered that sufficient data was gleaned during the peak period to identify a medium class population.

4:2 In terms of population class assessment, a count of over 10 adult animals on any one visit gives a medium population; the population in this pond is assessed as a medium population class.

4:3 The pond is clearly of importance to a breeding population of Great crested newt and it is quite possible that the pond immediately across the road may also be of some importance; though this has not been proven.

4:4 Although extensive survey work, over several years would be necessary to determine how Great crested newts are using the land to the rear of the pond, it is recommended (Great Crested Newt Mitigation Guidelines) that a cautionary approach be adopted. As such, all land within the site proposed for a change of land usage, has to be considered to be significant for forage and shelter and may well support juvenile Great crested newt that are essentially land bound for up to years of their life cycle. Adult animals will also use the terrestrial habitats for forage and shelter outside the breeding season. Newts will also need to migrate across terrestrial habitats when making their way to and from the ponds. It is also quite feasible that frost free cracks in the ground, gaps under, or around large stones and boulders may be used by newts for hibernation.

4:5 In terms of impact clearly, the biggest impacts will be disturbance and loss of habitat during the interim period prior to allotments becoming an up and running concern. There is also obviously potential for death or injury to animals whilst works are being carried out. On the longer term basis. It is worth noting that under the Great crested newt Mitigation Guidelines all land within 250 metres of a breeding pond are likely to be used by Great crested newt and that any change to vegetation within 50 metres of a known breeding pond is to be considered to have a medium impact.

4:6 Land to the south is sub optimal with a busy road demarcating the main breeding pond from the other pond. Land around the other pond is managed for amenity use and has little to

offer newts in the way of forage or shelter whilst land to the east consists of a housing development. Land usage to the west and north seems to be equestrian orientated with grass being kept cut, or grazed as paddock.

4:7 Taking 4:6 into account, it is of even greater importance to maintain suitable habitat within the boundaries of the site proposed for change of land usage if the future sustainability of the Great crested newt population is to be assured.

4:8 Invertebrate fauna in the ponds suggests the water is overall good quality. Water boatman (Lesser and Greater), Great diving beetle, *Odonata* nymphs, Hog louse, Daphne, Whirly gig beetles, Rams-horn snail were all frequent catches in dip netting; or observed in the water column. Bearing in mind only a limited amount of netting was carried out, this species list is not exhaustive and detailed invertebrate surveys would probably yield good results. Smooth newt was the least common of the three species of newt found in the pond whilst Palmate newt were found in slightly higher numbers. However, great crested are clearly the dominant species and will prey upon the other more common species of newt.

5: Recommendations

5: 1 As great crested newt have been shown to be present a European Protected Species license will be required to effect the changes proposed for land usage. Although the proposed allotments will be managed organically there will clearly be a significant loss of habitat, this in itself is likely to constitute an offence without a license as the terrestrial habitat is also of importance to great crested newts. The young will stay on land for up to four years before migrating to the breeding ponds. Adult animals will also rely on the terrestrial habitat for foraging, migration to and from the breeding ponds, shelter, forage and hibernation. A license will only be granted if the following **key tests can be satisfied**:

- *Regulation 44(2)(e), for the purpose of preserving **public health or public safety** or other imperative reasons of overriding public interest including those of a **social or economic nature** and beneficial consequences of primary importance for the environment; or*
- *Regulation 44(2)(f) for the purpose of **preventing the spread of disease**; or*
- *Regulation 44(2)(g) for the purpose of **preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber or any other forms of property or to fisheries**; subject to Natural England being satisfied that the application additionally meets:*
- *Regulation 44(3)(a) that there is **no satisfactory alternative**; and*
- *Regulation 44(3) (b) that the action authorised will **not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.***

5:2 In order to satisfy both licensing requirements and standards of good practice within the industry, a more comprehensive and separate method statement will be necessary to show how:

Killing or injury will be avoided during initial works

How loss of habitat will be adequately compensated for and be able to ensure the proposed change of land usage will not be detrimental to the breeding or conservation status of the population of Great crested newt present on site. This may involve locating a suitable receptor site and translocating animals off site.

In the case of killing or injury, this will require the use of trapping and exclusion techniques to remove animals from potential harm and ensure they do not return until all works that could cause death or injury have ceased. Current guidelines recommend a minimum of 60 nights trapping under reasonable weather conditions is. This work can only be carried out by a suitably qualified and licensed ecologist.

With regard to compensation for habitat loss it is difficult to see how this could be achieved without re- location off site, unless, the number of allotments was very limited so that the majority of the site is retained like for like. This would probably make the project unviable. Although organic horticulture will return some shelter and forage potential to the site, there will obviously be some level of post land use change disturbance and it is questionable whether even organically managed allotments can really be seen as an adequate replacement for semi natural rough grassland and scrub. In general Camber Ecology Limited would wholly support the use of allotments and it is true that sensitively managed allotments can support an array of wildlife. But in this particular case, the presence of a fully protected species and the ecological needs of that species cannot be viewed within that generalisation.

5:3 Post management of the site will require a management plan that is both sympathetic to the needs of Great crested newt (if the population is retained on site) as well as ensuring that overall biodiversity is encouraged.

5:4 Any mitigation scheme will also require post monitoring to assess if the scheme has worked and assess if the change of land usage has had any impact on the status of the resident population. This will require survey effort sufficient to offer a size population class assessment for a minimum of four years after the change of land usage has been effected (Great crested newt Mitigation Guidelines). This survey work will need to be conducted by a suitable qualified ecologist with a license to disturb Great crested newt.

5:5 However, natural England will still need to be confident that the above criteria with regard to licensing will be met (5:1) before issuing a license; the final decision as to whether the proposal is licensable rests with natural England.

5:6 Please note 5:2 to 5:5 do **NOT** represent a method statement, but merely serve as an introduction to more detailed proposals.

5:7 As stated, it is ultimately Natural England who will decide if a license can be granted for the proposed change of land use. But the mitigation required is likely to be costly and challenging; the outcome of a license application is by no means assured. An alternative land use might be to manage the land as a local area of nature conservation interest. If this possibility is considered, it is recommended that organisations such as the Sussex Wildlife Trust be approached for advice and offered to express an interest. A charitable conservation organisation might be interested in managing

the land for wildlife and local people and schools could be offered the opportunity to become involved. As such this parcel of land could still be a valuable asset to the village and local residents, if it is felt that the original proposal may become too costly in terms of available resources.

6: Great crested newts and the Law

6:1 The Great Crested Newt is protected under European law through Annexes 2 and 4 of the EU Habitats and Species Directive, the Bern Convention and the Conservation (Natural Habitats, etc.) Regulations 1994; and in the UK through Schedule 2 of the Wildlife and Countryside Act 1981 (as amended). Together these make it an offence to:

- Intentionally kill, injure or take a Great Crested Newt;
- Possess or control any live or dead specimen or anything derived from a Great Crested Newt;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for breeding, shelter or protection by a Great Crested Newt;
- Intentionally or recklessly disturb a Great Crested Newt while it is occupying a structure or place which it uses for that purpose;
- Intentionally take or destroy the eggs of a Great Crested Newt;
- Sell, barter, exchange, transport or offer for sale Great Crested Newts or parts of them.

6:2 Great Crested Newts are protected in the UK as this country represents their stronghold within Europe.

7: Limitations and disclaimers

7:1 The brief guide to protected species legislation above is simply that and intended to offer guidance only. It is for a court to decide if an offence has been committed; legal advice **must only** be sought from a fully qualified legal practitioner.

7:2 Survey data is considered accurate at the time of recording; populations can change with time and any survey conducted in the future may not yield the same results.

REPORT ENDS

