

Great Crested Newt Report

Southside, Horam

June 2021

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Great Crested Newt Report

23/06/2021

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1. Introduction

Background

1.1 Phlorum Ltd has been commissioned by Chailey Homes to undertake a great crested newt (*Triturus cristatus*) survey prior to development at Southside, Horebeech Lane in Horam, East Sussex (hereafter referred to as "the site").

1.2 The great crested newt survey follows on from a Preliminary Ecological Appraisal which identified potentially suitable habitat for this species within the site. An on-site pond offering potential breeding opportunities for great crested newt (*Triturus cristatus*) and the presence of suitable terrestrial habitat including hedgerows and semi-improved grassland were identified.

1.3 The report provides an assessment of the status of great crested newt both within, and in the vicinity of the site, providing information on their presence/likely absence and distribution. Potential impacts of the proposed development are identified and measures to mitigate the effects of the proposed development on great crested newts are discussed in outline.

1.4 Specific design proposals were not known at the time of compiling this report, however it is understood that proposals are for a residential development.

Site Description

1.5 The site is located at Southside on Horebeech Lane within the south eastern extents of the village of Horam, East Sussex. The site is bound to the north by Horebeech Lane and to the south, east and west by grassland fields, a hedgerow and treelines associated with the adjacent properties. A disused railway line and broad-leaved woodland block runs along the south west boundary of the site and extends to the south. The site comprised a semi-improved grassland field, hedgerows, scattered trees, a pond and areas of scrub and ruderal vegetation.

1.6 Agricultural grassland fields together with a network of treelines, hedgerows, woodland blocks, ponds and streams dominate the wider landscape.

1.7 The National Grid Reference for the centre of the site is TQ 58382 16798. The survey area extended over approximately 2.5 hectares (ha).

2. Methodology

Data Search

2.1 Records for great crested newt from within a 2km radius of the site were obtained from Sussex Biodiversity Records Centre (2017) as part of the Preliminary Ecological Appraisal (Phlorum, 2017).

Review of Previous Report

2.2 The desk study has involved the review of the following previous report carried out for the site:

- Great Crested Newt Survey Report (Phlorum 2017).

Consultations

2.3 The desk study has involved consultations with the following interested parties:

- County Ecologist (Ben Rainbow).

Great Crested Newt Survey

Habitat Suitability Index (HSI) Assessment

2.4 Phlorum undertook a HSI Assessment of the on-site pond and all accessible ponds within 500m of the survey boundary. A total of 12 ponds were included in the HSI Assessment.

2.5 The assessment was carried out by a suitably qualified ecologist using the methodology provided by the National Amphibian and Reptile Recording Scheme (Oldham et al., 2000).

2.6 The HSI assessment is a calculation based on numerical values given to ten key habitat criteria used to assess the suitability of a pond to support great crested newts and can be used to assess the likelihood of a given pond to support great crested newts (Oldham et al., 2000). The criteria are as follows:

- SI1 = geographic location;
- SI2 = pond area;
- SI3 = pond permanence;
- SI4 = water quality;
- SI5 = pond shading;
- SI6 = number of waterfowl;

- SI7 = occurrence of fish;
- SI8 = pond density;
- SI9 = proportion of 'newt friendly' terrestrial habitat; and
- SI10 = macrophyte (aquatic plant) content.

2.7 The results of the HSI assessment calculation have been compared to categorised HSI scores used by the National Amphibian and Reptile Recording Scheme (Oldham et al., 2000) to categorise the probability that a given pond will support great crested newts. The five categories are summarised in the table below.

Table 1: HSI Assessment Categories

Probability of Ponds Supporting Great Crested Newts	HSI Score
Poor	< 0.5
Below Average	0.5 - 0.59
Average	0.6 – 0.69
Good	0.7 - 0.79
Excellent	> 0.8

(Extracted from Oldham et al., 2000)

Pond Surveys

2.8 A total of 27 ponds were identified within a 500m radius of the proposed development site, in addition there was one on-site pond.

2.9 A total of 11 off-site ponds within 500m of the site were included in the survey, in addition to the on-site pond. The remaining 15 off-site ponds were excluded from the survey due to restricted access (with access being refused by the landowner, contact with the landowner not being possible or access routes being considered dangerous). The pond locations and reference numbers are represented in the Survey Map in Appendix A.

2.10 The survey protocols followed those set out in the Great Crested Newt Mitigation Guidelines (English Nature, 2001). The four surveys required to demonstrate presence or absence were conducted between mid-March and late June with two of those visits taking place within the peak survey time between mid-April and mid-May.

2.11 The pond surveys were led by Richard Schofield, who holds a great crested newt survey licence: 2019-39894-CLC-CLS and aided by Edie Burns who was also present to comply with mandatory health and safety requirements throughout the surveys.

2.12 All surveys were undertaken in periods of suitable weather conditions; avoiding strong winds and heavy rain. For each survey visit at least three of the following four survey techniques were employed:

- Torch survey: conducted at dusk using a 500,000 candlepower Clulite lamp to search the accessible margins of the water bodies;
- Egg search: a thorough search was made for newt eggs of any suitable vegetation present along the water margins. This comprised a search for any obviously folded leaves of emergent or marginal vegetation;
- Bottle trapping: following the torch survey, bottle-traps (made from two litre plastic bottles) were placed along the accessible margins of areas of open water. Traps were left overnight for a maximum of twelve hours and checked and removed the following morning; and/or
- Sweep netting: a standard professional long handled net was used to sample the water column throughout the pond around the margins and in the centre. The net was swept backwards and forwards through the water and the emptied out into a white plastic container and the contents examined and recorded.

Population Assessment

2.13 Where great crested newts were found to be present, a population assessment was made in accordance with the population size class assessment in the Great Crested Newt Mitigation Guidelines (English Nature 2001). These guidelines categorise the population as small, medium or high. The three categories are summarised in the Table below.

Table 2: Great Crested Newt Population Assessment

Population Size Class	Great Crested Newt Count
Small	Maximum count up to 10
Medium	Maximum counts 11 to 100
High	Maximum counts over 100

Constraints

Data Search Constraints

2.14 It is important to note that, even where data is held, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded.

Great Crested Newt Survey Constraints

2.15 Access was not possible to 14 of the off-site ponds within 500m. Access was refused for ponds 8-10 after the first visit, resulting in only one survey visit being completed for these ponds. Pond 4 could not be accessed on the 2nd June 2021 and so was only surveyed five times. Pond 7 could not be accessed on the 24th May 2021 or the 2nd June 2021 and so was only surveyed four times. Bottle trapping was not possible for pond 7 due to a concrete lining. Pond 11 could not be accessed on the 21st April or either of the June survey data and so was only surveyed three times.

3. Results

Data Search

3.1 The SxBRC data search returned a number of records of great crested newt within a 2km radius of the site boundary, including records from the on-site pond. The most recent on-site record was from 2014.

3.2 The closest off-site records for great crested newts were from 2014 and were located approximately 18m east and 175m north of the site boundary.

Review of Previous Report

3.3 The previous report detected a low population of great crested newts in the on-site pond and the offsite pond adjacent to the north-east corner of the site (referred to as ponds 1 and 2 in the 2017 report but referred to as ponds 4 and 5 in this report). Plus a medium populations of great crested newts in pond 4 referred to as pond 7 in this report.

Consultations

3.4 The county ecologist was consulted towards the end of 2020 about the site and the proposed mitigation as great crested newts were known to be on site after the 2017 surveys. After an initial agreement with the county ecologist that no further great crested newt surveys were required for planning and further surveys could be conditioned (as these surveys would be required for a European Protected Species Mitigation (EPSM) licence application), this was later changed and new surveys were requested at this stage of planning.

Great Crested Newt Survey

Overview

3.5 Great crested newts were recorded as present in pond 4, the on-site pond, and pond 7. Pond 4 was found to support a small population of great crested newts, while pond 7 was found to support a medium population based on current Natural England guidelines (Natural England, 2001). No great crested newt eggs or larvae were identified in any of the ponds during the six surveys.

3.6 A peak count of **1** adult great crested newt was recorded at pond 4 on both the 24th May 2021 and the 9th June 2021, and a peak count of **15** adult great crested newts were recorded at pond 7 on the 9th June 2021.

3.7 The table below presents peak counts observed for all three native newt species. For all of the ponds that were surveyed. Full survey and HSI data is presented in Appendix D

Table 3: Summary of Great Crested Newt Survey Results (with peak counts in red).

Pond Number	Great Crested Newt	Smooth Newt	Palmate Newt
1	0	0	0
2	0	3	1
3	0	1	0
4	1	4	1
5	0	0	0
6	0	1	1
7	15	15	3
8	0	0	0
9	0	0	0
10	0	0	0
11	0	0	0
12	0	0	0

Pond 1

3.8 A pond of approximately 175m^2 located within woodland adjacent to the Rosemead development, 100m northwest of the site.

3.9 The pond was entirely shaded by trees, had poor water quality and no emergent or submerged vegetation was present.

3.10 The HSI score for the pond was calculated as 0.56 which is considered **below average** and it was therefore categorised as having a **low** probability of supporting great crested newts.

3.11 No great crested newts were found during the six survey visits. No eggs of this species were found during any of the survey visits.

3.12 The table below summarises the survey results for this pond with peak counts for adults in red.

Table 4: Summary of Survey Results for Pond 1.

Date	Great Crested Newt	Smooth Newt	Palmate Newt
21/04/2021	0	0	0
28/04/2021	0	0	0
03/05/2021	0	0	0
24/05/2021	0	0	0
02/06/2021	0	0	0
09/06/2021	0	0	0

Pond 2

3.13 A pond of approximately 180m^2 on the Rosemead development next to completed houses, 120m northwest of the site. There was considerable pond-side vegetation and it was bounded by trees.

3.14 The pond was surrounded by reptile fencing, had waterfowl presence and poor water quality.

3.15 The HSI score for the pond was calculated as 0.43 which is considered **poor** and it was therefore categorised as having a **low** probability of supporting great crested newts. This suggests that there are limiting factors which may reduce the potential for great crested newt presence such as poor water quality.

3.16 No great crested newts were found during the six survey visits. No eggs of this species were found during any of the survey visits. On the fourth visit on the 24th May 2021 three smooth newts and one palmate newt were found, and on the fifth visit a frog was recorded.

3.17 The table below summarises the survey results for this pond with peak counts for adults in red.

Table 5: Summary of Survey Results for Pond 2.

Date	Great Crested Newt	Smooth Newt	Palmate Newt
21/04/2021	0	0	0
28/04/2021	0	0	0
03/05/2021	0	0	0
24/05/2021	0	3	1
02/06/2021	0	0	0
09/06/2021	0	0	0

Pond 3

3.18 A small pond of approximately 60m^2 located within woodland adjacent to the footpath, 250m northwest of the site.

3.19 The surrounding terrestrial habitat was considered good quality, however the water quality was poor.

3.20 The HSI score for the pond was calculated as 0.59 which is considered **below average** and it was therefore categorised as having a **low** probability of supporting great crested newts. This suggests that there are limiting factors which may reduce the potential for great crested newt presence such as poor water quality.

3.21 No great crested newts were found during the six survey visits. No eggs of this species were found during any of the survey visits. Smooth newts were found on the first two visits with a peak count of three individuals on the 21st April 2021. Tadpoles were present during the sixth visit.

3.22 The table below summarises the survey results for this pond with peak counts for adults in red.

Table 5: Summary of Survey Results for Pond 3.

Date	Great Crested Newt	Smooth Newt	Palmate Newt
21/04/2021	0	3	0
28/04/2021	0	1	0
03/05/2021	0	0	0
24/05/2021	0	0	0
02/06/2021	0	0	0
09/06/2021	0	0	0

Pond 4

3.23 A pond of approximately 180m^2 located within the north-eastern extent of the site. The pond was surrounded by semi-improved grassland, a mature hedgerow situated to the north and an area of scattered trees to the east.

3.24 The pond had a minor waterfowl presence and poor water quality.

3.25 The HSI score for the pond was calculated as 0.56 which is considered **below average** and it was therefore categorised as having a **low** probability of supporting great crested newts. This suggests that there are limiting factors which may reduce the potential for great crested newt presence such as poor water quality.

3.26 Access to the pond was not possible on the 2nd June 2021, therefore only five survey visits were made in total.

3.27 One adult great crested newt was found during the fourth and fifth visits on the 24th May 2021 and the 9th June 2021. No eggs of this species were found during any of the survey visits. Smooth newts and palmate newts were also observed during a number of the survey visits, with a peak count of four smooth newts found on the 21st April 2021 and one palmate newt found on each of the first three visits. A peak count of 1 equates to a **low** population of great crested newts in this pond.

3.28 The table below summarises the survey results for this pond with peak counts for adults in red.

Table 6: Summary of Survey Results for Pond 4.

Date	Great Crested Newt	Smooth Newt	Palmate Newt
21/04/2021	0	4	1
28/04/2021	0	1	1
03/05/2021	0	0	1
24/05/2021	1	0	0
09/06/2021	1	0	0

Pond 5

3.29 A pond of approximately 120m^2 within a field grazed by horses, immediately adjacent to the western border of the site.

3.30 The pond had poor water quality, a minor waterfowl presence and the surrounding terrestrial habitat was considered to be of poor quality.

3.31 The HSI score for the pond was **calculated** as 0.60 which is considered **average**, and it was therefore categorised as having a **medium** probability of supporting great crested newts.

3.32 No great crested newts were found during the four survey visits. No eggs of this species were found during any of the survey visits. Eggs of other common newt species were seen during the fourth visit on the 24th May 2021.

3.33 The table below summarises the survey results for this pond with peak counts for adults in red.

Table 7: Summary of Survey Results for Pond 5.

Date	Great Crested Newt	Smooth Newt	Palmate Newt
21/04/2021	0	0	0
28/04/2021	0	0	0
03/05/2021	0	0	0
24/05/2021	0	0	0

Pond 6

3.34 A small pond of approximately 50m^2 located 185m north of the site, adjacent to the Rosemead development.

3.35 The pond had poor water quality, a minor waterfowl presence and the surrounding terrestrial habitat was considered to be of poor quality.

3.36 The HSI score for the pond was calculated as 0.57 which is considered **below average** and it was therefore categorised as having a **low** probability of supporting great crested newts. This suggests that there are limiting factors which may reduce the potential for great crested newt presence such as poor water quality.

3.37 No great crested newts were found during the four survey visits. No eggs of this species were found during any of the survey visits. One palmate newt was found on the third visit on the 3rd May 2021 and one smooth newt was found on the fourth visit on the 24th May 2021.

3.38 The table below summarises the survey results for this pond with peak counts for adults in red.

Table 8: Summary of Survey Results for Pond 6.

Date	Great Crested Newt	Smooth Newt	Palmate Newt
21/04/2021	0	0	0
28/04/2021	0	0	0
03/05/2021	0	0	1
24/05/2021	0	1	0

Pond 7

3.39 A small concrete-lined pond of approximately 60m^2, located within a garden 430m east of the site. The pond is bordered by a cluster of trees to the southeast.

3.40 The surrounding terrestrial habitat can be considered moderate however the pond had poor water quality.

3.41 The HSI score for the pond was calculated as 0.62 which is considered **average** and it was therefore categorised as having a **medium** probability of supporting great crested newts.

3.42 Bottle trapping was not possible due to the pond being concrete-lined. Access to the pond was not possible on the 24th May 2021 or the 2nd June 2021, therefore only four survey visits were carried out in total.

3.43 A peak count of 15 adult great crested newts were recorded during the fourth visit on the 9th June 2021. Great crested newts were also found during the first visit on the 21st April 2021. No eggs of this species were found during any of the survey visits. Smooth newts were found on the first, second and fourth visits with a peak count of 15 observed on the 21st April 2021. Three palmate newts were found on the fourth visit on the 9th June 2021. A peak count of 15 equates to a **medium** population of great crested newts in this pond.

3.44 The table below summarises the survey results for this pond with peak counts for adults in red.

Table 9: Summary of Survey Results for Pond 7.

Date	Great Crested Newt	Smooth Newt	Palmate Newt
21/04/2021	3	15	0
28/04/2021	0	2	0
03/05/2021	0	0	0
09/06/2021	15	10	3

Pond 8

3.45 A pond of approximately 500m^2 located 350m southwest of the site, within woodland surrounded by fields of rough grassland. Several areas of wet ground joined this pond to other smaller water bodies, creating a well-connected cluster.

3.46 The pond had moderate water quality and was surrounded by good quality terrestrial habitat.

3.47 The HSI score for the pond was calculated as 0.83 which is considered **excellent** and it was therefore categorised as having a **high** probability of supporting great crested newts.

3.48 Following an initial survey visit on the 3rd May 2021, access to the pond was refused by the landowner for any subsequent surveys, therefore only one survey visit was carried out in total.

3.49 No great crested newts were found during the single survey visit. No eggs of this species were found during the survey visit.

3.50 The table below summarises the survey results for this pond with peak counts for adults in red.

Table 10: Summary of Survey Results for Pond 8.

Date	Great Crested Newt	Smooth Newt	Palmate Newt
03/05/2021	0	0	0

Pond 9

3.51 A pond of approximately 500m^2 located 220m southwest of the site, within woodland surrounded by fields of rough grassland.

3.52 The pond had moderate water quality and was surrounded by good quality terrestrial habitat, however it was almost entirely shaded.

3.53 The HSI score for the pond was calculated as 0.73 which is considered **good** and it was therefore categorised as having a **medium** probability of supporting great crested newts.

3.54 Following an initial survey visit on the 3rd May 2021, access to the pond was refused by the landowner for any subsequent surveys, therefore only one survey visit was carried out in total.

3.55 No great crested newts were found during the single survey visit. No eggs of this species were found during the survey visit.

3.56 The table below summarises the survey results for this pond with peak counts for adults in red.

Table 11: Summary of Survey Results for Pond 9.

Date	Great Crested Newt	Smooth Newt	Palmate Newt
03/05/2021	0	0	0

Pond 10

3.57 A pond of approximately 750m^2 located 350m southwest of the site, within woodland surrounded by fields of rough grassland.

3.58 The pond had moderate water quality and was surrounded by good quality terrestrial habitat, however it was almost entirely shaded.

3.59 The HSI score for the pond was calculated as 0.79 which is considered **good** and it was therefore categorised as having a **medium** probability of supporting great crested newts.

3.60 Following an initial survey visit on the 3rd May 2021, access to the pond was refused by the landowner for any subsequent surveys, therefore only one survey visit was carried out in total.

3.61 No great crested newts were found during the single survey visit. No eggs of this species were found during the survey visit.

3.62 The table below summarises the survey results for this pond with peak counts for adults in red.

Table 12: Summary of Survey Results for Pond 10.

Date	Great Crested Newt	Smooth Newt	Palmate Newt
03/05/2021	0	0	0

Pond 11

3.63 A large pond of approximately 1700m^2 located 200m northeast of the site, within a small area of woodland adjacent to the Rosemead development.

3.64 The pond was surrounded by good quality terrestrial habitat, however the water quality was poor and there was a minor waterfowl presence.

3.65 Access to the pond was not possible on the 21st April 2021 or for the June survey visits, therefore only three survey visits were carried out in total.

3.66 The HSI score for the pond was calculated as 0.75 which is considered **good** and it was therefore categorised as having a **medium** probability of supporting great crested newts.

3.67 No great crested newts were found during the three survey visits. No eggs of this species were found during any of the survey visits.

3.68 The table below summarises the survey results for this pond with peak counts for adults in red.

Table 13: Summary of Survey Results for Pond 11.

Date	Great Crested Newt	Smooth Newt	Palmate Newt
28/04/2021	0	0	0
03/05/2021	0	0	0
24/05/2021	0	0	0

Pond 12

3.69 A pond of approximately 550m^2 located 450m east of the site, within a small area of woodland bordered by Marle Green road to the south and fields to the north.

3.70 The pond was surrounded by moderate quality terrestrial habitat, had moderate water quality and there was a minor waterfowl presence.

3.71 The HSI score for the pond was calculated as 0.81 which is considered **excellent** and it was therefore categorised as having a **high** probability of supporting great crested newts.

3.72 No great crested newts were found during the four survey visits. No eggs of this species were found during any of the survey visits.

3.73 The table below summarises the survey results for this pond with peak counts for adults in red.

Table 14: Summary of Survey Results for Pond 12.

Date	Great Crested Newt	Smooth Newt	Palmate Newt
21/04/2021	0	0	0
28/04/2021	0	0	0
03/05/2021	0	0	0
24/05/2021	0	0	0

Results Summary

Table 15: Summary of HSI Scores for All Ponds.

Pond	HSI Score
Pond 1	HSI Score: 0.56 / Below Average
Pond 2	HSI Score: 0.43 / Poor
Pond 3	HSI Score: 0.59 / Below Average
Pond 4	HSI Score: 0.56 / Below Average
Pond 5	HSI Score: 0.60 / Average
Pond 6	HSI Score: 0.57 / Below Average
Pond 7	HSI Score: 0.62 / Average
Pond 8	HSI Score: 0.83 / Excellent

Pond 9	HSI Score: 0.73 / Good
Pond 10	HSI Score: 0.79 / Good
Pond 11	HSI Score: 0.75 / Good
Pond 12	HSI Score: 0.81 / Excellent

Table 16: Number of GCN Found in Each Pond.

Pond	GCN Abundance
Pond 1	Great crested newts not found
Pond 2	Great crested newts not found
Pond 3	Great crested newts not found
Pond 4	Peak count of 1 great crested newt
Pond 5	Great crested newts not found
Pond 6	Great crested newts not found
Pond 7	Peak count of 15 great crested newts
Pond 8	Great crested newts not found
Pond 9	Great crested newts not found
Pond 10	Great crested newts not found
Pond 11	Great crested newts not found
Pond 12	Great crested newts not found

4. Discussion and Recommendations

Discussion

4.1 The site survey was carried out at Southside on Horebeech Lane, within the south eastern extents of the village of Horam, East Sussex. Habitats within the locality comprise agricultural fields, grassland, treelines and woodland blocks, whilst the site comprises a semi-improved grassland field, hedgerows, woodland, scattered trees, a pond and areas of scrub and ruderal vegetation. These collectively provide suitable terrestrial habitat for great crested newts throughout the landscape, together with a network of ponds, including an on-site pond, providing suitable breeding opportunities within the locality.

4.2 Using the Habitat Suitability Index calculation, the on-site pond (pond 4) was assessed as being below average in potential to support great crested newts. Of the off-site ponds, pond 2 was considered poor, ponds 1, 3 and 6 were considered below average, ponds 5 and 7 were considered average, ponds 9, 10 and 11 were considered good, and ponds 8 and 12 were considered excellent in their potential to support great crested newts.

4.3 Great crested newts were found in ponds 4 (on-site) and 7 (off-site) during the survey, with peak counts of one adult in pond 4 and 15 adults in pond 7. Great crested newts were not found in the remaining ten ponds surveyed, however smooth newts and palmate newts were present in a number of them.

4.4 Great crested newts receive protection under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2010. Under current legislation both the individual and habitats they use for shelter and breeding are protected.

4.5 Based on the results of the survey and data search results, it is considered likely that great crested newts utilise the network of suitable ponds throughout the landscape. The possibility that ponds 4 and 7 are likely to support individuals from the same metapopulation cannot be ruled out. Due to the presence of a breeding population of great crested newts within the on-site pond and the extensive area of suitable terrestrial habitat surrounding the pond, it is considered likely that great crested newts will be impacted by the proposed development activities. However, the proposed development will not directly impact on the on site pond (pond 4).

4.6 Using the Rapid Risk Assessment tool produced by Natural England, and an estimated total working area of the development, the risk of an offence being committed under current legislation is considered to be 'highly likely' due to the loss of terrestrial habitat therefore an application to Natural England for a European Protected Species Mitigation (EPSM) licence in respect to this species will be required in order to progress with the proposal. The licence application will include detailed measures to mitigate the impacts of the development on great crested newts. A copy of the Rapid Risk Assessment Tool is also provided below.

Table 17: Copy of the Natural England Rapid Risk Assessment Tool for the Proposed Residential Development Area

Component	**Likely effect** (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	>1 ha lost or damaged	0.9
Land 100-250m from any breeding pond(s)	No effect	0
Land >250m from any breeding pond(s)	No effect	0
Individual great crested newts	No effect	0
	Maximum:	0.9
Rapid risk assessment result:	**RED: OFFENCE HIGHLY LIKELY**	

4.7 General site enhancement measures included as part of the proposed landscaping design will serve to maintain connectivity for widespread amphibians in the locality although additional measures could be included in the landscaping to further enhance the site for widespread amphibians and encourage long-term use of the off-site ponds. This is in accordance with National and Local Planning Policy which stipulates that maintaining biodiversity is of principle importance in the planning process.

4.8 Further enhancement options are provided in the Recommendations Section below.

Recommendations

4.9 An EPSM licence will be required in order to legally disturb on-site terrestrial habitat within the proposed development area. A licence application can only be submitted to Natural England following the granting of full planning permission.

4.10 It takes several weeks to compile the application and full details of the project would be required including the final design layout and detailed landscaping plans. Once submitted, Natural England state a 30 working day assessment period, licenses are either granted, refused or queried. Please note that although 30 working days is stated, Natural England is currently experiencing long delays and so notification of their decision may be later than 30 working days. Ground works cannot commence until the great crested newt licence has been approved and necessary pre-works mitigation put in place.

4.11 Outline recommendations to be included in the licence are provided below.

4.12 A formal translocation of great crested newts from the proposed working area will be required as part of the licence. This will include the installation of newt exclusion fencing around the perimeter of the working area together with a series of pitfall traps located along the fence line.

4.13 The design of the fencing should be the same as that illustrated in the Great Crested Newt Mitigation Guidelines (Natural England 2004) and reproduced in Appendix E.

4.14 The fence should be made of UV resistant polythene approximately 500mm in height and buried 200mm deep into the ground. There should also be a turn out or roll down at the top of the fence facing out from the development area. The exclusion fence will be retained until completion of the construction and landscaping period and will be removed under an ecological watching brief. The installation of exclusion fencing around the site boundary will restrict movement of any newts into the development footprint prior to and during the works.

4.15 The area will then be subject to a 60 day trapping exercise (based on a medium sized metapopulation being supported at the site). In accordance with best practice, trapping can only be undertaken in the active period for great crested newts, taken to nominally run between March and October inclusive. This process can be undertaken concurrently with the reptile translocation.

4.16 Prior to the translocation commencing, a suitable receptor area will need to be selected for the translocated individuals. It is always recommended that the receptor area is as close to the translocation area as possible, and wherever practicable, individuals should be retained on-site within an area protected from the works. The selected receptor area may require enhancement as part of the works to ensure the area can support the increased carrying capacity. This may include the installation of hibernacula piles and grassland management.

4.17 It is recommended that the southern section of the site and a buffer zone along the eastern boundary of the site is retained as the receptor area. This area supports rough grassland that benefits from no recent management regime and some of which is scheduled to remain free from any development work in relation to badger and reptile mitigation. This area will measure a minimum of 0.5 ha to compensate for the terrestrial habitat lost during development activity. The approximate location is indicated on the Great Crested Newt Survey Map in Appendix A. This area also enables on-going connectivity to off-site habitat within the wider surrounds, including pond 5 and should be enhanced through the provision of one hibernacula and two log pile(s) in addition to a long-term grassland cutting regime to ensure habitat quality for reptiles and great crested newts (and other amphibians) in the long–term. Specific enhancement options should be devised once the final design layout is being prepared.

4.18 At the time of compiling this report specific design proposals were not available, however it is considered likely that works will result in 'partial destruction of terrestrial habitat' within the development footprint. It is anticipated that the proposals will not result in fragmentation or any subsequent isolation between suitable terrestrial and breeding habitat in the wider surrounds due to the retention of boundary habitats and with careful landscaping, areas of terrestrial habitat can be enhanced post works.

4.19 A requirement of any EPSM licence is for post development monitoring of the population to ensure that the favourable conservation status of great crested newts in their natural range is maintained. Based on the anticipated impacts of the proposals at this stage, it is likely that a monitoring programme of between two and four years will need to be undertaken at the site.

4.20 The proposed mitigation together with the pre and post development enhancement measures detailed in this report will ensure that proposed development will not be detrimental to the maintenance of the great crested newt population at a favourable conservation status in the locality. In addition, the development will result in habitat enhancement for this species in the long-term; providing additional and higher quality on-site breeding and terrestrial habitat.

Site Enhancement

Landscape Planting

4.21 Planting should include a high proportion of native species and include a mix of shrubs, trees and grassland wherever possible.

4.22 Grassland along the eastern boundary of the site; adjacent to the on-site pond (pond 4) and pond 5, should be retained where possible and new grassland planting around the site should include a diverse species mix suitable for the area, to include wildflowers. For areas which will be subject to regular management an appropriate amenity wildflower mix should be used. Species within this grassland type benefit from regular mowing.

4.23 Boundary vegetation should be retained and enhanced through additional tree and shrub planting to provide wildlife corridors for a range of species in the landscape to move between the site, including amphibians.

Log Piles

4.24 Log piles could also be installed within suitable habitat in the north east corner of the site, adjacent to the on-site pond and near pond 5 (off-site). These should be oriented so as to maximise their daily exposure to the sun, with the longest side facing south. The log piles should be made from neatly stacked wood, locally sourced where possible, and stacked approximately 1m in height, either in a pyramidal shape (bound with wire to prevent it breaking apart over time) or stacked against mature trees.

4.25 Log piles are ideal environments for amphibians; used for hibernation and as a refuge from predators. The dead wood also supports a diverse invertebrate fauna; a food source for a range of species including amphibians, reptiles and birds.

Other

4.26 If works do not proceed within two years from the date of the last great crested newt survey, then the site would need to be re-surveyed to ensure that the baseline conditions have not changed and that the recommendations to include any mitigation remain appropriate.

5. Conclusions

5.1 The survey site is situated at Southside, Horebeech Lane, approximately 0.6km south-east of Horam.

5.2 The site comprised of a semi-improved grassland field, hedgerows, woodland, scattered trees, a pond and areas of scrub and ruderal vegetation, and extended over approximately 2.5 hectares (ha).

5.3 It is understood that development proposals are for residential dwellings.

5.4 Using the Habitat Suitability Index calculation, the on-site pond was assessed as being below average in its potential to support great crested newts, whilst the 11 off-site ponds ranged from being poor to excellent in their potential to support great crested newts.

5.5 Through conventional surveying, great crested newts were found to be **present** in the on-site pond (pond 4), with a peak count of 1 individual (low population), and one off-site pond (pond 7), with had a peak count of 15 individuals (medium population).

5.6 As a result, a EPSM licence for great crested newts will be required for the site.

6. References

- Natural England. (2001). *Great Crested Newt Mitigation Guidelines.* Natural England, Peterborough, UK.
- Natural England. (2011). *Standing Advice Species Sheet: Great Crested Newts.* [On-line]. Available from http://www.naturalengland.org.uk/ourwork/planningtransportlocalgov/spatialplanning/standingadvice/specieslinks.aspx [Accessed 30/06/2015].
- Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus).* Herpetological Journal 10 (4), 143-155.
- Phlorum. (2017). *Land at Southside, Horebeech Lane, Horam: Preliminary Ecological Appraisal*. Unpublished report for Chailey Homes. Brighton: Phlorum.
- Sussex Biodiversity Records Centre (SxBRC) (2017). *Desktop Biodiversity Report for land at Southside, Horebeech Lane, Horam, East Sussex*. Unpublished report for Phlorum. Henfield, West Sussex: SxBRC.

Appendix A
Great Crested Newt Survey Map

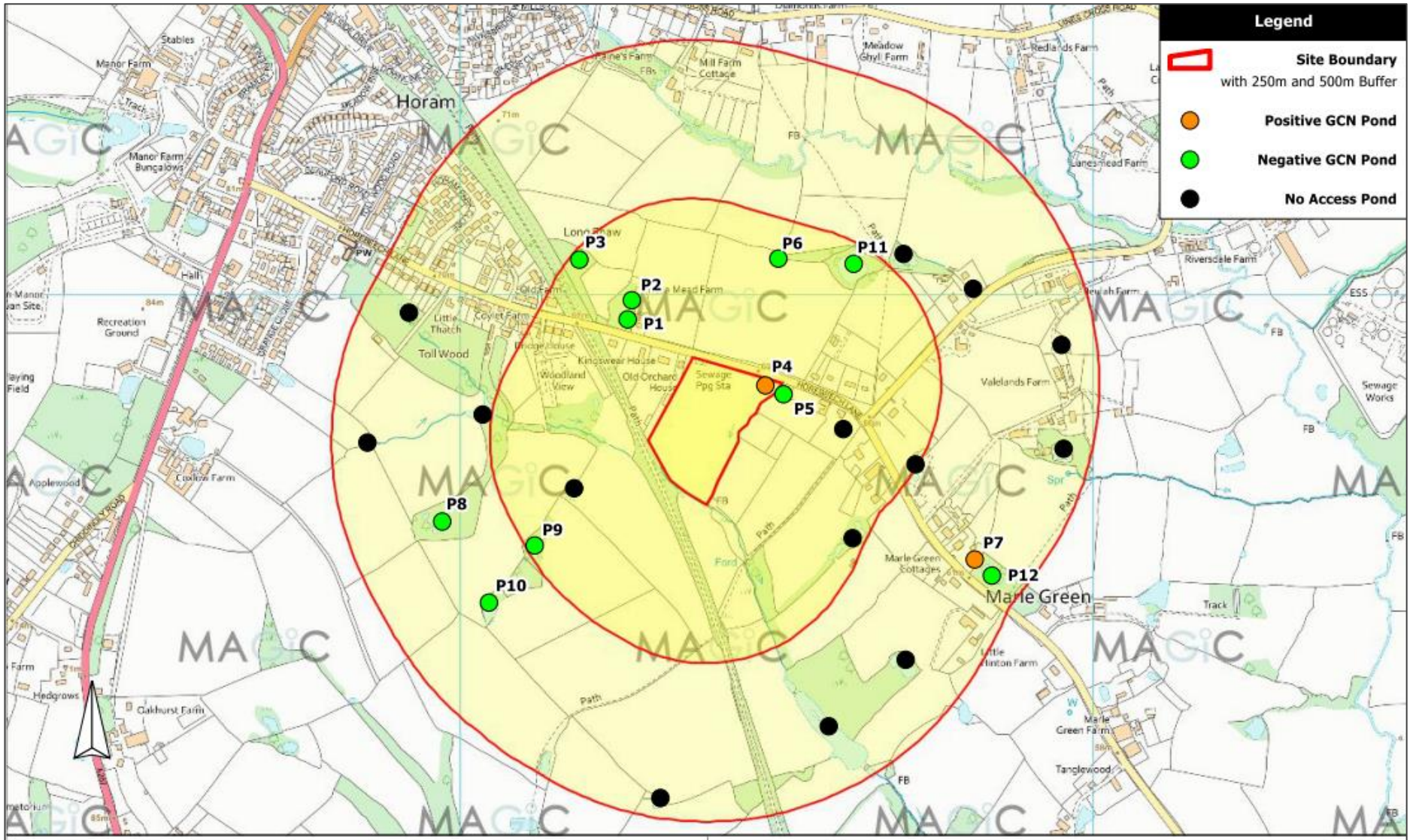


Figure 1: Horam South GCN Survey Map

Drawn by: NA
On the: 23-Jun-21
Not to Scale
Ref: 7257

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Woodingdean, Brighton, East Sussex,
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Appendix B
Legislation

Legislation

This section contains information pertaining to the legislation and planning policy applicable in Britain. This information is not applicable to Northern Ireland, the Republic of Ireland the Isle of Man or the Channel Islands. Information contained in the following appendix is provided for guidance only.

Species

The objective of the EC Habitats Directive1 is to conserve plants and animals which are considered to be rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (as amended) (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and also implements the obligations set out for species protection from the Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Various amendments have been made since the Wildlife & Countryside Act came into force in 1981. Further details pertaining to alterations of the Act can be found on the following website: www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CRoW) Act (2000) and Nature Conservation (Scotland) Act 2004.

There are a number of other legislative Acts affording protection to species and habitats. These include:

- Countryside and Rights of Way (CRoW) Act 2000;
- Deer Act 1991;
- Natural Environment & Rural Communities (NERC) Act 2006;
- Protection of Badgers Act 1992; and
- Wild Mammals (Protection) Act 1996.

Herpetofauna (Reptiles and Amphibians)

The following species receive full protection under the Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2.

- sand lizard (*Lacerta agilis*);
- smooth snake (*Coronella austriaca*);
- natterjack toad (*Epidalea calamita*);

[1] Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.

- great crested newt (*Triturus cristatus*); and
- pool frog (*Pelophylax lessonae*).

Under this legislation, Regulation 41 prohibits:

- deliberate killing, injuring or capturing of species listed on Schedule 2;
- deliberate disturbance of any Schedule 2 species as to impair their ability:

  (i) to survive, breed, or reproduce, or to rear or nurture young; and

  (ii) to hibernate or migrate.
- deliberate disturbance of any Schedule 2 species as to affect significantly the local distribution or abundance of the species;
- deliberate taking or destroying of the eggs of a Schedule 2 species;
- damage or destruction of a breeding site or resting place; and
- keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part of a species.

With the exception of the pool frog, these species are also currently listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this Act, they are additionally protected from:

- intentional or reckless disturbance (at any level);
- intentional or reckless obstruction of access to any place of shelter or protection; and
- selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). These species include:

- adder (*Vipera berus*);
- grass snake (*Natrix natrix*);
- common lizard (*Zootoca vivipara*); and
- slow-worm (*Anguis fragilis*).

Under this legislation, for these species it is prohibited under Section 9(1) & (5) to:

- intentionally (or recklessly in Scotland) kill or injure these species; and
- sell, offer or expose for sale, possess or transport for purpose of sale these species, or any part thereof.

The following species are listed in respect to Section 9(5) of Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) which only affords them protection against sale, offering or exposing for sale, possession or transport for the purpose of sale:

- common frog (*Rana temporaria*);
- common toad (*Bufo bufo*);
- smooth newt (*Lissotriton vulgaris*); and

- palmate newt (*L. helveticus*).

Appendix C
Photographs

Photographs

Photograph Number and Feature	Photograph of Feature
Photograph 1: An adult great crested newt observed in pond 7 on the 9th June 2021.	

Appendix D
Survey Data

Great Crested Newt Survey: Pond 1

1. Pond Details

Project	**Horam**
Project number/reference	7257
Site	Southside, Horebeech Lane, Horam

Pond number/reference	**Pond 1**
OS Grid reference	TQ58261695
Location details	Pond in woodland next to cuckoo line and rosemeads development - Large pond but completely shaded with no vegetation growth
Access instructions	High footpath above cuckoo trail and through broken fence into woodla

Landowner name	Chailey Homes
Address/email	10 Cophall Farm Business Park, Effingham Road, Copthorne, West Sussex RH10 3HZ
Telephone	1342870002

Habitat Suitability Index

			SI value
SI1.	Map location	**A/B/C**	A
SI2.	Surface area	**rectangle/ellipse/irregular**	ellipse
		length (m)	
		width (m)	
		OR estimate (m^2) if irregular	
		area (m^2) =	*175*
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	sometimes
SI4.	Water quality	**good/moderate/poor/bad**	poor
SI5.	Shade	% of margin shaded 1m from bank	100
SI6.	Waterfowl	**absent/minor/major**	absent
SI7.	Fish population	**absent/possible/minor/major**	absent
SI8.	Pond density	number of ponds within 1km	28
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	poor
SI10.	Macrophyte cover	%	95

***Note**: Guidance in undertaking the HSI is available at HSI calculation formulae adapted from Rob Oldham*

HSI score = 0.56

Pond suitability = below average

General description/notes/comments

Survey results summary

Number of survey visits: 6

***Note**: The great crested newt mitigation guidelines recommend that a minimum of **four** survey visits are required to determine likely absence, and **six** to assess population size class.*

***Note**: Only bottle-trapping and torch survey are considered suitable methods for assessing population*

***Note:** Peak count is the maximum number of adult newts seen on one visit using one survey method.*

Presence or likely absence = Likely absent

Peak count = 0

***Pond* population size class =** N/A

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Great Crested Newt Survey: Pond 1

2. Survey Details

	Visit 1	Visit 2	Visit 3
Date	21/04/2021	28/04/2021	03/05/2021
Personnel	KR & EB	KW & CB	KW & FC
Temperature (ºC)	11	9	11
Weather	Dry	Cool/ Damp	Wet/ Windy
Vegetation cover (0-5)	5	4	4
Turbidity (0-5)	0	0	1
Methods			
indicate methods used or number of bottle traps	☑ X ☑ egg	☑ 6 ☑ egg	☑ 5 ☑ egg
T. cristatus (GCN)			
male	0 N/A 0 0	0 0 0 0	0 0 0 0
female	0 N/A 0 0	0 0 0 0	0 0 0 0
unknown	0 N/A 0 0	0 0 0 0	0 0 0 0
total adults	**0 N/A 0 0**	**0 0 0 0**	**0 0 0 0**
immature	0 N/A 0 0	0 0 0 0	0 0 0 0
larvae	0 N/A 0 0	0 0 0 0	0 0 0 0
eggs present?	no	no	no
L. vulgaris (smooth)	0	0	0
L. helveticus (palmate)	0	0	0
R. temporaria (C. Frog)	0	0	0
B. bufo (C. Toad)	0	0	0
Other	0	0	0

	Visit 4	Visit 5	Visit 6
Date	24/05/2021	02/06/2021	09/06/2021
Personnel	KW & KB	CS + EB	CB & AF
Temperature (ºC)	12	18	14
Weather	Drizzle	Cloud = 6 ; wind = 1 ; rain = 0	Fair
Vegetation cover (0-5)	4	5	4
Turbidity (0-5)	0	1	1
Methods			
indicate methods used or number of bottle traps	☑ 8 ☑ egg	☑ X ☑ egg	☑ X ☑ egg
T. cristatus (GCN)			
male	0 0 0 0	0 N/A 0 0	0 N/A 0 0
female	0 0 0 0	0 N/A 0 0	0 N/A 0 0
unknown	0 0 0 0	0 N/A 0 0	0 N/A 0 0
total adults	**0 0 0 0**	**0 N/A 0 0**	**0 N/A 0 0**
immature	0 0 0 0	0 N/A 0 0	0 N/A 0 0
larvae	0 0 0 0	0 N/A 0 0	0 N/A 0 0
eggs present?	no	no	no
L. vulgaris (smooth)	0	0	0
L. helveticus (palmate)	0	0	0
R. temporaria (C. Frog)	0	0	0
B. bufo (C. Toad)	0	0	0
Other	0	0	0

***Note**: Cells highlighted orange indicate a potential detectibility issue due sub-optimal survey condition*

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Great Crested Newt Survey: Pond 2

1. Pond Details

Project	**Horam**
Project number/reference	7257
Site	Southside, Horebeech Lane, Horam

Pond number/reference	**Pond 2**
OS Grid reference	TQ58261698
Location details	Pond on Rosemeads development next to completed houses - Good amount of pond side vegetation and large pond but has reptile fencing
Access instructions	Direct through development - adjacent to Pond 1 can go from there

Landowner name	Chailey Homes
Address/email	10 Cophall Farm Business Park, Effingham Road, Copthorne, West Sussex RH10 3HZ
Telephone	1342870002

Habitat Suitability Index

			SI value
SI1.	Map location	**A/B/C**	A
SI2.	Surface area	**rectangle/ellipse/irregular**	ellipse
		length (m)	
		width (m)	
		OR estimate (m^2) if irregular	
		area (m^2) =	*180*
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	sometimes
SI4.	Water quality	**good/moderate/poor/bad**	poor
SI5.	Shade	% of margin shaded 1m from bank	50
SI6.	Waterfowl	**absent/minor/major**	major
SI7.	Fish population	**absent/possible/minor/major**	possible
SI8.	Pond density	number of ponds within 1km	28
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	moderate
SI10.	Macrophyte cover	%	90

***Note**: Guidance in undertaking the HSI is available at HSI calculation formulae adapted from Rob Oldham*

HSI score = 0.43

Pond suitability = poor

General description/notes/comments

Survey results summary

Number of survey visits: 6

***Note**: The great crested newt mitigation guidelines recommend that a minimum of **four** survey visits are required to determine likely absence, and **six** to assess population size class.*

***Note**: Only bottle-trapping and torch survey are considered suitable methods for assessing population*

***Note:** Peak count is the maximum number of adult newts seen on one visit using one survey method.*

Presence or likely absence = Likely absent

Peak count = 0

***Pond* population size class =** N/A

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Great Crested Newt Survey: Pond 2

2. Survey Details

	Visit 1	Visit 2	Visit 3
Date	21/04/2021	28/04/2021	03/05/2021
Personnel	KR & EB	KW & CB	KW & FC
Temperature (ºC)	11	9	11
Weather	Dry	Cool/ Damp	Wet/ Windy
Vegetation cover (0-5)	1	3	3
Turbidity (0-5)	0	4	4
Methods	torch / trap / net / other	torch / trap / net / other	torch / trap / net / other
indicate methods used or number of bottle traps	☑ / X / ☑ / egg	☑ / 6 / ☑ / egg	☑ / 5 / ☑ / egg
***T. cristatus* (GCN)**			
male	0 / N/A / 0 / 0	0 / 0 / 0 / 0	0 / 0 / 0 / 0
female	0 / N/A / 0 / 0	0 / 0 / 0 / 0	0 / 0 / 0 / 0
unknown	0 / N/A / 0 / 0	0 / 0 / 0 / 0	0 / 0 / 0 / 0
total adults	**0 / N/A / 0 / 0**	**0 / 0 / 0 / 0**	**0 / 0 / 0 / 0**
immature	0 / N/A / 0 / 0	0 / 0 / 0 / 0	0 / 0 / 0 / 0
larvae	0 / N/A / 0 / 0	0 / 0 / 0 / 0	0 / 0 / 0 / 0
eggs present?	no	no	no
L. vulgaris (smooth)	0	0	0
L. helveticus (palmate)	0	0	0
R. temporaria (C. Frog)	0	0	0
B. bufo (C. Toad)	0	0	0
Other	0	0	0

	Visit 4	Visit 5	Visit 6
Date	24/05/2021	02/06/2021	09/06/2021
Personnel	KW & KB	CS + EB	CB & AF
Temperature (ºC)	12	18	15
Weather	Drizzle	Cloud = 6 ; wind = 1 ; rain = 0	Fair
Vegetation cover (0-5)	3	4	4
Turbidity (0-5)	4	1	2
Methods	torch / trap / net / other	torch / trap / net / other	torch / trap / net / other
indicate methods used or number of bottle traps	☑ / 8 / ☑ / egg	☑ / X / ☑ / egg	☑ / X / ☑ / egg
***T. cristatus* (GCN)**			
male	0 / 0 / 0 / 0	0 / N/A / 0 / 0	0 / N/A / 0 / 0
female	0 / 0 / 0 / 0	0 / N/A / 0 / 0	0 / N/A / 0 / 0
unknown	0 / 0 / 0 / 0	0 / N/A / 0 / 0	0 / N/A / 0 / 0
total adults	**0 / 0 / 0 / 0**	**0 / N/A / 0 / 0**	**0 / N/A / 0 / 0**
immature	0 / 0 / 0 / 0	0 / N/A / 0 / 0	0 / N/A / 0 / 0
larvae	0 / 0 / 0 / 0	0 / N/A / 0 / 0	0 / N/A / 0 / 0
eggs present?	no	no	no
L. vulgaris (smooth)	3	0	0
L. helveticus (palmate)	1	0	0
R. temporaria (C. Frog)	0	0	0
B. bufo (C. Toad)	0	0	0
Other	0	0	0

***Note**: Cells highlighted orange indicate a potential detectibility issue due sub-optimal survey condition*

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Great Crested Newt Survey: Pond 3

1. Pond Details

Project	**Horam**
Project number/reference	7257
Site	Southside, Horebeech Lane, Horam

Pond number/reference	**Pond 3**
OS Grid reference	TQ58181705
Location details	Pond within woodland adjacent to footpath - very shaded and some rubbish dumped within
Access instructions	Follow high footpath on from pond 1 access and into woodland

Landowner name	Chailey Homes
Address/email	10 Cophall Farm Business Park, Effingham Road, Copthorne, West Sussex RH10 3HZ
Telephone	1342870002

Habitat Suitability Index

			SI value
SI1.	Map location	**A/B/C**	A
SI2.	Surface area	**rectangle/ellipse/irregular**	ellipse
		length (m)	
		width (m)	
		OR estimate (m^2) if irregular	
		area (m^2) =	*60*
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	sometimes
SI4.	Water quality	**good/moderate/poor/bad**	poor
SI5.	Shade	% of margin shaded 1m from bank	90
SI6.	Waterfowl	**absent/minor/major**	absent
SI7.	Fish population	**absent/possible/minor/major**	absent
SI8.	Pond density	number of ponds within 1km	28
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	good
SI10.	Macrophyte cover	%	30

***Note**: Guidance in undertaking the HSI is available at HSI calculation formulae adapted from Rob Oldham*

HSI score = 0.59

Pond suitability = below average

General description/notes/comments

Survey results summary

Number of survey visits: 6

***Note**: The great crested newt mitigation guidelines recommend that a minimum of **four** survey visits are required to determine likely absence, and **six** to assess population size class.*

***Note**: Only bottle-trapping and torch survey are considered suitable methods for assessing population*

***Note:** Peak count is the maximum number of adult newts seen on one visit using one survey method.*

Presence or likely absence = Likely absent

Peak count = 0

***Pond* population size class =** N/A

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Great Crested Newt Survey: Pond 3

2. Survey Details

	Visit 1	Visit 2	Visit 3
Date	21/04/2021	28/04/2021	03/05/2021
Personnel	KR & EB	KW & CB	KW & FC
Temperature (ºC)	11	9	11
Weather	Dry	Cool/ Damp	Wet/ Windy
Vegetation cover (0-5)	1	0	1
Turbidity (0-5)	0	4	4
Methods	torch / trap / net / other	torch / trap / net / other	torch / trap / net / other
indicate methods used or number of bottle traps	☑ / X / ☑ / egg	☑ / 5 / ☑ / egg	☑ / 5 / ☑ / egg
***T. cristatus* (GCN)**			
male	0 / N/A / 0 / 0	0 / 0 / 0 / 0	0 / 0 / 0 / 0
female	0 / N/A / 0 / 0	0 / 0 / 0 / 0	0 / 0 / 0 / 0
unknown	0 / N/A / 0 / 0	0 / 0 / 0 / 0	0 / 0 / 0 / 0
total adults	**0 / N/A / 0 / 0**	**0 / 0 / 0 / 0**	**0 / 0 / 0 / 0**
immature	0 / N/A / 0 / 0	0 / 0 / 0 / 0	0 / 0 / 0 / 0
larvae	0 / N/A / 0 / 0	0 / 0 / 0 / 0	0 / 0 / 0 / 0
eggs present?	no	no	no
L. vulgaris (smooth)	3	1	0
L. helveticus (palmate)	0	0	0
R. temporaria (C. Frog)	0	0	0
B. bufo (C. Toad)	0	0	0
Other	0	0	0

	Visit 4	Visit 5	Visit 6
Date	24/05/2021	02/06/2021	09/06/2021
Personnel	KW & KB	CS + EB	CB &AF
Temperature (ºC)	12	18	14
Weather	Drizzle	Cloud = 6 ; wind = 1 ; rain = 0	Fair
Vegetation cover (0-5)	1	2	2
Turbidity (0-5)	4	1	1
Methods	torch / trap / net / other	torch / trap / net / other	torch / trap / net / other
indicate methods used or number of bottle traps	☑ / 8 / ☑ / egg	☑ / X / ☑ / egg	☑ / X / ☑ / egg
***T. cristatus* (GCN)**			
male	0 / 0 / 0 / 0	0 / N/A / 0 / 0	0 / N/A / 0 / 0
female	0 / 0 / 0 / 0	0 / N/A / 0 / 0	0 / N/A / 0 / 0
unknown	0 / 0 / 0 / 0	0 / N/A / 0 / 0	0 / N/A / 0 / 0
total adults	**0 / 0 / 0 / 0**	**0 / N/A / 0 / 0**	**0 / N/A / 0 / 0**
immature	0 / 0 / 0 / 0	0 / N/A / 0 / 0	0 / N/A / 0 / 0
larvae	0 / 0 / 0 / 0	0 / N/A / 0 / 0	0 / N/A / 0 / 0
eggs present?	no	no	no
L. vulgaris (smooth)	0	0	0
L. helveticus (palmate)	0	0	0
R. temporaria (C. Frog)	0	0	0
B. bufo (C. Toad)	0	0	0
Other	0	0	Tadpoles

***Note**: Cells highlighted orange indicate a potential detectibility issue due sub-optimal survey condition*

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Great Crested Newt Survey: Pond 4

1. Pond Details

Project	**Horam**
Project number/reference	7257
Site	Southside, Horebeech Lane, Horam

Pond number/reference	**Pond 4**
OS Grid reference	TQ58481685
Location details	On-site pond
Access instructions	Open access through gap by sewege pump. Far NE corner of field

Landowner name	Chailey Homes
Address/email	10 Cophall Farm Business Park, Effingham Road, Copthorne, West Sussex RH10 3HZ
Telephone	1342870002

Habitat Suitability Index

			SI value
SI1.	Map location	**A/B/C**	A
SI2.	Surface area	**rectangle/ellipse/irregular**	Ellipse
		length (m)	
		width (m)	
		OR estimate (m^2) if irregular	
		area (m^2) =	*180*
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	sometimes
SI4.	Water quality	**good/moderate/poor/bad**	poor
SI5.	Shade	% of margin shaded 1m from bank	80
SI6.	Waterfowl	**absent/minor/major**	minor
SI7.	Fish population	**absent/possible/minor/major**	absent
SI8.	Pond density	number of ponds within 1km	28
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	poor
SI10.	Macrophyte cover	%	10

***Note**: Guidance in undertaking the HSI is available at HSI calculation formulae adapted from Rob Oldham*

HSI score = 0.56

Pond suitability = below average

General description/notes/comments

Survey results summary

Number of survey visits: 5

***Note**: The great crested newt mitigation guidelines recommend that a minimum of **four** survey visits are required to determine likely absence, and **six** to assess population size class.*

***Note**: Only bottle-trapping and torch survey are considered suitable methods for assessing population*

***Note:** Peak count is the maximum number of adult newts seen on one visit using one survey method.*

Presence or likely absence = Present

Peak count = 1

***Pond* population size class =** Small

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Great Crested Newt Survey: Pond 4

2. Survey Details

	Visit 1	Visit 2	Visit 3
Date	21/04/2021	28/04/2021	03/05/2021
Personnel	KR & EB	KW & CB	KW &FC
Temperature (ºC)	11	9	9
Weather	Dry	Cool/ Damp	Wet/ Windy
Vegetation cover (0-5)	1	1	1
Turbidity (0-5)	0	3	4
Methods			
indicate methods used or number of bottle traps	☑ X ☑ egg	☑ 5 ☑ egg	☑ 6 ☑ egg
***T. cristatus* (GCN)**			
male	0 N/A 0 0	0 0 0 0	0 0 0 0
female	0 N/A 0 0	0 0 0 0	0 0 0 0
unknown	0 N/A 0 0	0 0 0 0	0 0 0 0
total adults	**0 N/A 0 0**	**0 0 0 0**	**0 0 0 0**
immature	0 N/A 0 0	0 0 0 0	0 0 0 0
larvae	0 N/A 0 0	0 0 0 0	0 0 0 0
eggs present?	no	no	no
L. vulgaris (smooth)	4	1	0
L. helveticus (palmate)	1	1	0
R. temporaria (C. Frog)	0	0	0
B. bufo (C. Toad)	0	0	0
Other	0	0	0

	Visit 4	Visit 5	Visit 6
Date	24/05/2021	Access not possible	09/06/2021
Personnel	KW & KB		CB & AF
Temperature (ºC)	12		14
Weather	Drizzle		Fair
Vegetation cover (0-5)	1		1
Turbidity (0-5)	4		4
Methods			
indicate methods used or number of bottle traps	☑ 6 ☑ egg		☑ X ☑ egg
***T. cristatus* (GCN)**			
male	0 0 0 0		0 N/A 0 0
female	0 1 0 0		1 N/A 0 0
unknown	0 0 0 0		0 N/A 0 0
total adults	**0 1 0 0**		**1 N/A 0 0**
immature	0 0 0 0		0 N/A 0 0
larvae	0 0 0 0		0 N/A 0 0
eggs present?	no		no
L. vulgaris (smooth)	0		0
L. helveticus (palmate)	1		0
R. temporaria (C. Frog)	0		0
B. bufo (C. Toad)	0		0
Other	0		0

***Note**: Cells highlighted orange indicate a potential detectibility issue due sub-optimal survey condition*

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Great Crested Newt Survey: Pond 5

1. Pond Details

Project	**Horam**
Project number/reference	7257
Site	Southside, Horebeech Lane, Horam
Pond number/reference	**Pond 5**
OS Grid reference	
Location details	Pond within Donkey and Horse Padock other side of hedgerow from P
Access instructions	Land owner no issues, appreciates knock. Climb over gate. Electric
Landowner name	Chailey Homes
Address/email	10 Cophall Farm Business Park, Effingham Road, Copthorne, West Sussex RH10 3HZ
Telephone	1342870002

Habitat Suitability Index

			SI value
SI1.	Map location	**A/B/C**	A
SI2.	Surface area	**rectangle/ellipse/irregular**	
		length (m)	
		width (m)	
		OR estimate (m^2) if irregular	
		area (m^2) =	*120*
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	never
SI4.	Water quality	**good/moderate/poor/bad**	poor
SI5.	Shade	% of margin shaded 1m from bank	60
SI6.	Waterfowl	**absent/minor/major**	minor
SI7.	Fish population	**absent/possible/minor/major**	absent
SI8.	Pond density	number of ponds within 1km	28
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	poor
SI10.	Macrophyte cover	%	10

***Note**: Guidance in undertaking the HSI is available at HSI calculation formulae adapted from Rob Oldham*

HSI score = 0.60

Pond suitability = average

General description/notes/comments

Survey results summary

Number of survey visits: 4

***Note**: The great crested newt mitigation guidelines recommend that a minimum of **four** survey visits are required to determine likely absence, and **six** to assess population size class.*

***Note**: Only bottle-trapping and torch survey are considered suitable methods for assessing population*

***Note:** Peak count is the maximum number of adult newts seen on one visit using one survey method.*

Presence or likely absence = Likely absent

Peak count = 0

***Pond* population size class =** N/A

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Great Crested Newt Survey: Pond 5

2. Survey Details

	Visit 1	Visit 2	Visit 3
Date	21/04/2021	28/04/2021	03/05/2021
Personnel	KR & EB	KW & CB	KW & FC
Temperature (ºC)	11	9	9
Weather	Dry	Cool/ Damp	Wet/ Windy
Vegetation cover (0-5)	1	1	1
Turbidity (0-5)	4	4	3
Methods	torch / trap / net / other	torch / trap / net / other	torch / trap / net / other
indicate methods used or number of bottle traps	☑ / X / ☑ / egg	☑ / 5 / ☑ / egg	☑ / ☑ / ☑ / egg
***T. cristatus* (GCN)**			
male	0 / N/A / 0 / 0	0 / 0 / 0 / 0	0 / 0 / 0 / 0
female	0 / N/A / 0 / 0	0 / 0 / 0 / 0	0 / 0 / 0 / 0
unknown	0 / N/A / 0 / 0	0 / 0 / 0 / 0	0 / 0 / 0 / 0
total adults	**0 / N/A / 0 / 0**	**0 / 0 / 0 / 0**	**0 / 0 / 0 / 0**
immature	0 / N/A / 0 / 0	0 / 0 / 0 / 0	0 / 0 / 0 / 0
larvae	0 / N/A / 0 / 0	0 / 0 / 0 / 0	0 / 0 / 0 / 0
eggs present?	no	no	no
L. vulgaris (smooth)	0	0	0
L. helveticus (palmate)	0	0	0
R. temporaria (C. Frog)	0	0	0
B. bufo (C. Toad)	0	0	0
Other	0	0	0

	Visit 4	Visit 5	Visit 6
Date	24/05/2021		
Personnel	KW & KB		
Temperature (ºC)	12		
Weather	Drizzle		
Vegetation cover (0-5)	1		
Turbidity (0-5)	4		
Methods	torch / trap / net / other	torch / trap / net / other	torch / trap / net / other
indicate methods used or number of bottle traps	☑ / 6 / ☑ / egg	/ / /	/ / /
***T. cristatus* (GCN)**			
male	0 / 0 / 0 / 0	/ / /	/ / /
female	0 / 0 / 0 / 0	/ / /	/ / /
unknown	0 / 0 / 0 / 0	/ / /	/ / /
total adults	**0 / 0 / 0 / 0**	/ / /	/ / /
immature	0 / 0 / 0 / 0	/ / /	/ / /
larvae	0 / 0 / 0 / 0	/ / /	/ / /
eggs present?	no		
L. vulgaris (smooth)	0		
L. helveticus (palmate)	0		
R. temporaria (C. Frog)	0		
B. bufo (C. Toad)	0		
Other	Other Newt Eggs		

***Note**: Cells highlighted orange indicate a potential detectibility issue due sub-optimal survey condition*

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Great Crested Newt Survey: Pond 6

1. Pond Details

Project	**Horam**
Project number/reference	7257
Site	Southside, Horebeech Lane, Horam

Pond number/reference	**Pond 6**
OS Grid reference	TQ58491705
Location details	Small pond next to Rosemeads development but accessed from land I
Access instructions	North footpath at laundry lane junction, follow newly planted trees

Landowner name	Chailey Homes
Address/email	10 Cophall Farm Business Park, Effingham Road, Copthorne, West Sussex RH10 3HZ
Telephone	1342870002

Habitat Suitability Index

			SI value
SI1.	Map location	**A/B/C**	A
SI2.	Surface area	**rectangle/ellipse/irregular**	
		length (m)	
		width (m)	
		OR estimate (m^2) if irregular	
		area (m^2) =	*50*
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	rarely
SI4.	Water quality	**good/moderate/poor/bad**	poor
SI5.	Shade	% of margin shaded 1m from bank	80
SI6.	Waterfowl	**absent/minor/major**	minor
SI7.	Fish population	**absent/possible/minor/major**	absent
SI8.	Pond density	number of ponds within 1km	28
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	poor
SI10.	Macrophyte cover	%	95

***Note**: Guidance in undertaking the HSI is available at HSI calculation formulae adapted from Rob Oldham*

HSI score = 0.57

Pond suitability = below average

General description/notes/comments

Survey results summary

Number of survey visits: 4

***Note**: The great crested newt mitigation guidelines recommend that a minimum of **four** survey visits are required to determine likely absence, and **six** to assess population size class.*

***Note**: Only bottle-trapping and torch survey are considered suitable methods for assessing population*

***Note:** Peak count is the maximum number of adult newts seen on one visit using one survey method.*

Presence or likely absence = Likely absent

Peak count = 0

***Pond* population size class =** N/A

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Great Crested Newt Survey: Pond 6

2. Survey Details

	Visit 1	Visit 2	Visit 3
Date	21/04/2021	28/04/2021	03/05/2021
Personnel	KR & EB	KW & CB	KW & FC
Temperature (ºC)	11	9	10
Weather	Dry	Cool/damp	Wet/ Windy
Vegetation cover (0-5)	5	2	2
Turbidity (0-5)	0	1	1
Methods			
indicate methods used or number of bottle traps	☑ X ☑ egg	☑ 5 ☑ egg	☑ 4 ☑ egg
***T. cristatus* (GCN)**			
male	0 N/A 0 0	0 0 0 0	0 0 0 0
female	0 N/A 0 0	0 0 0 0	0 0 0 0
unknown	0 N/A 0 0	0 0 0 0	0 0 0 0
total adults	**0 N/A 0 0**	**0 0 0 0**	**0 0 0 0**
immature	0 N/A 0 0	0 0 0 0	0 0 0 0
larvae	0 N/A 0 0	0 0 0 0	0 0 0 0
eggs present?	no	no	no
L. vulgaris (smooth)	0	0	0
L. helveticus (palmate)	0	0	1
R. temporaria (C. Frog)	0	0	0
B. bufo (C. Toad)	0	0	0
Other	0	0	0

	Visit 4	Visit 5	Visit 6
Date	24/05/2021		
Personnel	KW & KB		
Temperature (ºC)	12		
Weather	Drizzle		
Vegetation cover (0-5)	2		
Turbidity (0-5)	1		
Methods			
indicate methods used or number of bottle traps	☑ 4 ☑ egg		
***T. cristatus* (GCN)**			
male	0 0 0 0		
female	0 0 0 0		
unknown	0 0 0 0		
total adults	**0 0 0 0**		
immature	0 0 0 0		
larvae	0 0 0 0		
eggs present?	no		
L. vulgaris (smooth)	1		
L. helveticus (palmate)	0		
R. temporaria (C. Frog)	0		
B. bufo (C. Toad)	0		
Other	0		

***Note**: Cells highlighted orange indicate a potential detectibility issue due sub-optimal survey condition*

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Great Crested Newt Survey: Pond 7

1. Pond Details

Project	**Horam**
Project number/reference	
Site	Southside, Horebeech Lane, Horam

Pond number/reference	**Pond 7**
OS Grid reference	cherubs.bookshelf.prep
Location details	In front garden of marle cottages
Access instructions	Knock but elderly and may not hear

Landowner name	Chailey Homes
Address/email	10 Cophall Farm Business Park, Effingham Road, Copthorne, West Sussex RH10 3HZ
Telephone	1342870002

Habitat Suitability Index

			SI value
SI1.	Map location	**A/B/C**	
SI2.	Surface area	**rectangle/ellipse/irregular**	irregular
		length (m)	30
		width (m)	20
		OR estimate (m^2) if irregular	
		area (m^2) =	*60*
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	never
SI4.	Water quality	**good/moderate/poor/bad**	poor
SI5.	Shade	% of margin shaded 1m from bank	40
SI6.	Waterfowl	**absent/minor/major**	absent
SI7.	Fish population	**absent/possible/minor/major**	absent
SI8.	Pond density	number of ponds within 1km	28
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	moderate
SI10.	Macrophyte cover	%	5

***Note**: Guidance in undertaking the HSI is available at HSI calculation formulae adapted from Rob Oldham*

HSI score = 0.62

Pond suitability = average

General description/notes/comments

Concrete lined - No BT // Algae

A

Survey results summary

Number of survey visits: 4

***Note**: The great crested newt mitigation guidelines recommend that a minimum of **four** survey visits are required to determine likely absence, and **six** to assess population size class.*

***Note**: Only bottle-trapping and torch survey are considered suitable methods for assessing population*

***Note:** Peak count is the maximum number of adult newts seen on one visit using one survey method.*

Presence or likely absence = Present

Peak count = 15

***Pond* population size class =** Medium

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Great Crested Newt Survey: Pond 7

2. Survey Details

	Visit 1	Visit 2	Visit 3
Date	21/04/2021	03/05/2021	03/05/2021
Personnel	KR & EB	KW & FC	KW & FC
Temperature (ºC)	10	10	10
Weather	Dry	Wet/ Windy	Wet/ Windy
Vegetation cover (0-5)	2	2	2
Turbidity (0-5)	1	1	1
Methods	torch / trap / net / other	torch / trap / net / other	torch / trap / net / other
indicate methods used or number of bottle traps	☑ / X / ☑ / egg	☑ / X / ☑ / egg	☑ / X / ☑ / egg
***T. cristatus* (GCN)**			
male	3 / N/A / 0 / 0	0 / N/A / 0 / 0	0 / N/A / 0 / 0
female	0 / N/A / 0 / 0	0 / N/A / 0 / 0	0 / N/A / 0 / 0
unknown	0 / N/A / 0 / 0	0 / N/A / 0 / 0	0 / N/A / 0 / 0
total adults	**3 / N/A / 0 / 0**	**0 / N/A / 0 / 0**	**0 / N/A / 0 / 0**
immature	0 / N/A / 0 / 0	0 / N/A / 0 / 0	0 / N/A / 0 / 0
larvae	0 / N/A / 0 / 0	0 / N/A / 0 / 0	0 / N/A / 0 / 0
eggs present?	no	no	no
L. vulgaris (smooth)	15	2	0
L. helveticus (palmate)	0	0	0
R. temporaria (C. Frog)	0	0	0
B. bufo (C. Toad)	0	0	0
Other	1 dead GCN	0	0

	Visit 4	Visit 5	Visit 6
Date	Access not possible	Access not possible	09/06/2021
Personnel			CB & AF
Temperature (ºC)			14
Weather			Fair
Vegetation cover (0-5)			5
Turbidity (0-5)			1
Methods	torch / trap / net / other	torch / trap / net / other	torch / trap / net / other
indicate methods used or number of bottle traps	/ / /	/ / /	☑ / X / ☑ / egg
***T. cristatus* (GCN)**			
male	/ / /	/ / /	1 / N/A / 0 / 0
female	/ / /	/ / /	14 / N/A / 0 / 0
unknown	/ / /	/ / /	0 / N/A / 0 / 0
total adults	**/ / / **	**/ / / **	**15 / N/A / 0 / 0**
immature	/ / /	/ / /	0 / N/A / 0 / 0
larvae	/ / /	/ / /	0 / N/A / 0 / 0
eggs present?			no
L. vulgaris (smooth)			10
L. helveticus (palmate)			3
R. temporaria (C. Frog)			0
B. bufo (C. Toad)			0
Other			0

***Note**: Cells highlighted orange indicate a potential detectibility issue due sub-optimal survey condition*

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Great Crested Newt Survey: Pond 8

1. Pond Details

Project	**Horam**
Project number/reference	7257
Site	Southside, Horebeech Lane, Horam

Pond number/reference	**Pond 8**
OS Grid reference	TQ 57971664
Location details	In woodland with surrounding scrubby fields. Has several areas of raised wet ground connecting other smaller ponds, making a well
Access instructions	Path off Cuckoo line at TQ 58251683 and across field from pond 21

Landowner name	Chailey Homes
Address/email	10 Cophall Farm Business Park, Effingham Road, Copthorne, West Sussex RH10 3HZ
Telephone	1342870002

Habitat Suitability Index

			SI value
SI1.	Map location	**A/B/C**	A
SI2.	Surface area	**rectangle/ellipse/irregular**	Irregular
		length (m)	
		width (m)	
		OR estimate (m^2) if irregular	
		area (m^2) =	*500*
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	rarely
SI4.	Water quality	**good/moderate/poor/bad**	moderate
SI5.	Shade	% of margin shaded 1m from bank	90
SI6.	Waterfowl	**absent/minor/major**	absent
SI7.	Fish population	**absent/possible/minor/major**	possible
SI8.	Pond density	number of ponds within 1km	28
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	good
SI10.	Macrophyte cover	%	60

***Note**: Guidance in undertaking the HSI is available at HSI calculation formulae adapted from Rob Oldham*

HSI score = 0.83

Pond suitability = excellent

General description/notes/comments

Land owner aggravated by presence do not survey

Survey results summary

Number of survey visits: 1

***Note**: The great crested newt mitigation guidelines recommend that a minimum of **four** survey visits are required to determine likely absence, and **six** to assess population size class.*

***Note**: Only bottle-trapping and torch survey are considered suitable methods for assessing population*

***Note:** Peak count is the maximum number of adult newts seen on one visit using one survey method.*

Presence or likely absence = N/A

Peak count = 0

***Pond* population size class =** N/A

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Great Crested Newt Survey: Pond 8

2. Survey Details

	Visit 1	Visit 2	Visit 3
Date	03/05/2021		
Personnel	KW & FC		
Temperature (ºC)	10		
Weather	Wet/ Windy		
Vegetation cover (0-5)	3		
Turbidity (0-5)	2		
Methods			
indicate methods used or number of bottle traps	torch: ☑ / trap: 6 / net: ☑ / other: egg		
***T. cristatus* (GCN)**			
male	0 / 0 / 0 / 0		
female	0 / 0 / 0 / 0		
unknown	0 / 0 / 0 / 0		
total adults	**0 / 0 / 0 / 0**		
immature	0 / 0 / 0 / 0		
larvae	0 / 0 / 0 / 0		
eggs present?	no	no	no
L. vulgaris (smooth)	0		
L. helveticus (palmate)	0		
R. temporaria (C. Frog)	0		
B. bufo (C. Toad)	0		
Other	0		

	Visit 4	Visit 5	Visit 6
Date			
Personnel			
Temperature (ºC)			
Weather			
Vegetation cover (0-5)			
Turbidity (0-5)			
Methods			
indicate methods used or number of bottle traps	torch / trap / net / other		
***T. cristatus* (GCN)**			
male			
female			
unknown			
total adults			
immature			
larvae			
eggs present?			
L. vulgaris (smooth)			
L. helveticus (palmate)			
R. temporaria (C. Frog)			
B. bufo (C. Toad)			
Other			

***Note**: Cells highlighted orange indicate a potential detectibility issue due sub-optimal survey condition*

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Great Crested Newt Survey: Pond 9

1. Pond Details

Project	**Horam**
Project number/reference	7257
Site	Southside, Horebeech Lane, Horam

Pond number/reference	**Pond 9**
OS Grid reference	TQ 5811 1659
Location details	Within woodland surrounded by scrubby trees. Connected by woodland to pond 21
Access instructions	Path off Cuckoo line at TQ 58251683

Landowner name	Chailey Homes
Address/email	10 Cophall Farm Business Park, Effingham Road, Copthorne, West Sussex RH10 3HZ
Telephone	1342870002

Habitat Suitability Index

			SI value
SI1.	Map location	**A/B/C**	A
SI2.	Surface area	**rectangle/ellipse/irregular**	Irregular
		length (m)	
		width (m)	
		OR estimate (m^2) if irregular	
		area (m^2) =	*500*
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	sometimes
SI4.	Water quality	**good/moderate/poor/bad**	moderate
SI5.	Shade	% of margin shaded 1m from bank	100
SI6.	Waterfowl	**absent/minor/major**	absent
SI7.	Fish population	**absent/possible/minor/major**	possible
SI8.	Pond density	number of ponds within 1km	28
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	good
SI10.	Macrophyte cover	%	90

***Note**: Guidance in undertaking the HSI is available at HSI calculation formulae adapted from Rob Oldham*

HSI score = 0.73

Pond suitability = good

General description/notes/comments

Land owner aggravated by presence do not survey

Survey results summary

Number of survey visits: 1

***Note**: The great crested newt mitigation guidelines recommend that a minimum of **four** survey visits are required to determine likely absence, and **six** to assess population size class.*

***Note**: Only bottle-trapping and torch survey are considered suitable methods for assessing population*

***Note:** Peak count is the maximum number of adult newts seen on one visit using one survey method.*

Presence or likely absence = N/A

Peak count = 0

***Pond* population size class =** N/A

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Great Crested Newt Survey: Pond 9

2. Survey Details

	Visit 1	Visit 2	Visit 3
Date	03/05/2021		
Personnel	KW & FC		
Temperature (ºC)	10		
Weather	Wet/ Windy		
Vegetation cover (0-5)	2		
Turbidity (0-5)	2		
Methods			
indicate methods used or number of bottle traps	☑	☑	
***T. cristatus* (GCN)**			
male	0	0	0	0								
female	0	0	0	0								
unknown	0	0	0	0								
total adults	**0**	**0**	**0**	**0**								
immature	0	0	0	0								
larvae	0	0	0	0								
eggs present?	no		
L. vulgaris (smooth)	0		
L. helveticus (palmate)	0		
R. temporaria (C. Frog)	0		
B. bufo (C. Toad)	0		
Other	0		

	Visit 4	Visit 5	Visit 6
Date			
Personnel			
Temperature (ºC)			
Weather			
Vegetation cover (0-5)			
Turbidity (0-5)			
Methods			
indicate methods used or number of bottle traps			
***T. cristatus* (GCN)**			
male												
female												
unknown												
total adults												
immature												
larvae												
eggs present?			
L. vulgaris (smooth)			
L. helveticus (palmate)			
R. temporaria (C. Frog)			
B. bufo (C. Toad)			
Other			

***Note**: Cells highlighted orange indicate a potential detectibility issue due sub-optimal survey condition*

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Great Crested Newt Survey: Pond 10

1. Pond Details

Project	**Horam**
Project number/reference	7257
Site	Southside, Horebeech Lane, Horam

Pond number/reference	**Pond 10**
OS Grid reference	TQ 5804 1650
Location details	Within woodland surrounded by scrubby trees. Connected by woodland to pond 20
Access instructions	Path off Cuckoo line at TQ 58251683 and up from pond 20

Landowner name	Chailey Homes
Address/email	10 Cophall Farm Business Park, Effingham Road, Copthorne, West Sussex RH10 3HZ
Telephone	1342870002

Habitat Suitability Index

			SI value
SI1.	Map location	**A/B/C**	A
SI2.	Surface area	**rectangle/ellipse/irregular**	
		length (m)	
		width (m)	
		OR estimate (m^2) if irregular	
		area (m^2) =	*750*
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	rarely
SI4.	Water quality	**good/moderate/poor/bad**	moderate
SI5.	Shade	% of margin shaded 1m from bank	100
SI6.	Waterfowl	**absent/minor/major**	absent
SI7.	Fish population	**absent/possible/minor/major**	possible
SI8.	Pond density	number of ponds within 1km	28
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	good
SI10.	Macrophyte cover	%	80

***Note**: Guidance in undertaking the HSI is available at HSI calculation formulae adapted from Rob Oldham*

HSI score = 0.79

Pond suitability = good

General description/notes/comments

Land owner aggravated by presence do not survey

Survey results summary

Number of survey visits: 1

***Note**: The great crested newt mitigation guidelines recommend that a minimum of **four** survey visits are required to determine likely absence, and **six** to assess population size class.*

***Note**: Only bottle-trapping and torch survey are considered suitable methods for assessing population*

***Note:** Peak count is the maximum number of adult newts seen on one visit using one survey method.*

Presence or likely absence = N/A

Peak count = 0

***Pond* population size class =** N/A

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Great Crested Newt Survey: Pond 10

2. Survey Details

	Visit 1	Visit 2	Visit 3
Date	03/05/2021		
Personnel	KW & FC		
Temperature (ºC)	10		
Weather	Wet/ Windy		
Vegetation cover (0-5)	2		
Turbidity (0-5)	4		
Methods			
indicate methods used or number of bottle traps	☑	5	☑	egg								
***T. cristatus* (GCN)**	torch	trap	net	other	torch	trap	net	other	torch	trap	net	other
male	0	0	0	0								
female	0	0	0	0								
unknown	0	0	0	0								
total adults	**0**	**0**	**0**	**0**								
immature	0	0	0	0								
larvae	0	0	0	0								
eggs present?	no											
L. vulgaris (smooth)	0											
L. helveticus (palmate)	0											
R. temporaria (C. Frog)	0											
B. bufo (C. Toad)	0											
Other	0											

	Visit 4	Visit 5	Visit 6
Date			
Personnel			
Temperature (ºC)			
Weather			
Vegetation cover (0-5)			
Turbidity (0-5)			
Methods			
indicate methods used or number of bottle traps	torch	trap	net	other	torch	trap	net	other	torch	trap	net	other
***T. cristatus* (GCN)**												
male												
female												
unknown												
total adults												
immature												
larvae												
eggs present?												
L. vulgaris (smooth)												
L. helveticus (palmate)												
R. temporaria (C. Frog)												
B. bufo (C. Toad)												
Other												

***Note**: Cells highlighted orange indicate a potential detectibility issue due sub-optimal survey condition*

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Great Crested Newt Survey: Pond 11

1. Pond Details

Project	**Horam**
Project number/reference	7257
Site	Southside, Horebeech Lane, Horam

Pond number/reference	**Pond 11**
OS Grid reference	TQ58621704
Location details	Very large pond within woodland adjacent to Rosemeads development
Access instructions	North footpath from Laundy Lane Junction. After second stile on left.

Landowner name	Chailey Homes
Address/email	10 Cophall Farm Business Park, Effingham Road, Copthorne, West Sussex RH10 3HZ
Telephone	1342870002

Habitat Suitability Index

			SI value
SI1.	Map location	**A/B/C**	A
SI2.	Surface area	**rectangle/ellipse/irregular**	Irregular
		length (m)	
		width (m)	
		OR estimate (m^2) if irregular	
		area (m^2) =	*1700*
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	never
SI4.	Water quality	**good/moderate/poor/bad**	poor
SI5.	Shade	% of margin shaded 1m from bank	80
SI6.	Waterfowl	**absent/minor/major**	minor
SI7.	Fish population	**absent/possible/minor/major**	possible
SI8.	Pond density	number of ponds within 1km	28
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	good
SI10.	Macrophyte cover	%	50

***Note**: Guidance in undertaking the HSI is available at HSI calculation formulae adapted from Rob Oldham*

HSI score = 0.75

Pond suitability = good

General description/notes/comments

Boggy edges, Lots of Bramble

Survey results summary

Number of survey visits: 3

***Note**: The great crested newt mitigation guidelines recommend that a minimum of **four** survey visits are required to determine likely absence, and **six** to assess population size class.*

***Note**: Only bottle-trapping and torch survey are considered suitable methods for assessing population*

***Note:** Peak count is the maximum number of adult newts seen on one visit using one survey method.*

Presence or likely absence = N/A

Peak count = 0

***Pond* population size class =** N/A

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Great Crested Newt Survey: Pond 11

2. Survey Details

	Visit 1	Visit 2	Visit 3
Date	28/04/2021	03/05/2021	24/05/2021
Personnel	KW & CB	KW & FC	KW & KB
Temperature (ºC)	9	10	12
Weather	Cool	Wet/ Windy	Drizzle
Vegetation cover (0-5)	0	0	2
Turbidity (0-5)	4	1	4
Methods			
indicate methods used or number of bottle traps	☑ torch; 6 trap; ☑ net; egg other	☑ torch; 5 trap; ☑ net; egg other	☑ torch; 4 trap; ☑ net; egg other
***T. cristatus* (GCN)**			
male	0 0 0 0	0 0 0 0	0 0 0 0
female	0 0 0 0	0 0 0 0	0 0 0 0
unknown	0 0 0 0	0 0 0 0	0 0 0 0
total adults	**0 0 0 0**	**0 0 0 0**	**0 0 0 0**
immature	0 0 0 0	0 0 0 0	0 0 0 0
larvae	0 0 0 0	0 0 0 0	0 0 0 0
eggs present?	no	no	no
L. vulgaris (smooth)	0	0	0
L. helveticus (palmate)	0	0	0
R. temporaria (C. Frog)	0	0	0
B. bufo (C. Toad)	0	0	0
Other	0	0	0

	Visit 4	Visit 5	Visit 6
Date			
Personnel			
Temperature (ºC)			
Weather			
Vegetation cover (0-5)			
Turbidity (0-5)			
Methods			
indicate methods used or number of bottle traps	torch; trap; net; other	torch; trap; net; other	torch; trap; net; other
***T. cristatus* (GCN)**			
male			
female			
unknown			
total adults			
immature			
larvae			
eggs present?			
L. vulgaris (smooth)			
L. helveticus (palmate)			
R. temporaria (C. Frog)			
B. bufo (C. Toad)			
Other			

***Note**: Cells highlighted orange indicate a potential detectibility issue due sub-optimal survey condition*

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Great Crested Newt Survey: Pond 12

1. Pond Details

Project	**Horam**
Project number/reference	7257
Site	Southside, Horebeech Lane, Horam

Pond number/reference	**Pond 12**
OS Grid reference	TQ58841655
Location details	Large pond with good vegetation cover on one side. Path runs along southern bank
Access instructions	Footpath off road and to the West

Landowner name	Chailey Homes
Address/email	10 Cophall Farm Business Park, Effingham Road, Copthorne, West Sussex RH10 3HZ
Telephone	1342870002

Habitat Suitability Index

			SI value
SI1.	Map location	**A/B/C**	A
SI2.	Surface area	**rectangle/ellipse/irregular**	Ellipse
		length (m)	
		width (m)	
		OR estimate (m^2) if irregular	
		area (m^2) =	*550*
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	never
SI4.	Water quality	**good/moderate/poor/bad**	moderate
SI5.	Shade	% of margin shaded 1m from bank	60
SI6.	Waterfowl	**absent/minor/major**	minor
SI7.	Fish population	**absent/possible/minor/major**	possible
SI8.	Pond density	number of ponds within 1km	28
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	moderate
SI10.	Macrophyte cover	%	40

***Note**: Guidance in undertaking the HSI is available at HSI calculation formulae adapted from Rob Oldham*

HSI score = 0.81

Pond suitability = excellent

General description/notes/comments

Survey results summary

Number of survey visits: 4

***Note**: The great crested newt mitigation guidelines recommend that a minimum of **four** survey visits are required to determine likely absence, and **six** to assess population size class.*

***Note**: Only bottle-trapping and torch survey are considered suitable methods for assessing population*

***Note:** Peak count is the maximum number of adult newts seen on one visit using one survey method.*

Presence or likely absence = Likely absent

Peak count = 0

***Pond* population size class =** N/A

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Great Crested Newt Survey: Pond 12

2. Survey Details

	Visit 1	Visit 2	Visit 3
Date	21/04/2021	28/04/2021	03/05/2021
Personnel	KR & EB	KW & CB	KW & FC
Temperature (ºC)	11	9	10
Weather	Dry	Cool/damp	Wet/ Windy
Vegetation cover (0-5)	5	3	3
Turbidity (0-5)	0	4	3
Methods			
indicate methods used or number of bottle traps	☑	X	☑	egg	☑	4	☑	egg	☑	6	☑	egg
***T. cristatus* (GCN)**												
male	0	N/A	0	0	0	0	0	0	0	0	0	0
female	0	N/A	0	0	0	0	0	0	0	0	0	0
unknown	0	N/A	0	0	0	0	0	0	0	0	0	0
total adults	**0**	**N/A**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
immature	0	N/A	0	0	0	0	0	0	0	0	0	0
larvae	0	N/A	0	0	0	0	0	0	0	0	0	0
eggs present?	no				no				no			
L. vulgaris (smooth)	0				0				0			
L. helveticus (palmate)	0				0				0			
R. temporaria (C. Frog)	0				0				0			
B. bufo (C. Toad)	0				0				0			
Other	0				0				0			

	Visit 4	Visit 5	Visit 6
Date	24/05/2021		
Personnel	KW & KB		
Temperature (ºC)	12		
Weather	Drizzle		
Vegetation cover (0-5)	3		
Turbidity (0-5)	2		
Methods			
indicate methods used or number of bottle traps	☑	6	☑	egg								
***T. cristatus* (GCN)**												
male	0	0	0	0								
female	0	0	0	0								
unknown	0	0	0	0								
total adults	**0**	**0**	**0**	**0**								
immature	0	0	0	0								
larvae	0	0	0	0								
eggs present?	no											
L. vulgaris (smooth)	0											
L. helveticus (palmate)	0											
R. temporaria (C. Frog)	0											
B. bufo (C. Toad)	0											
Other	0											

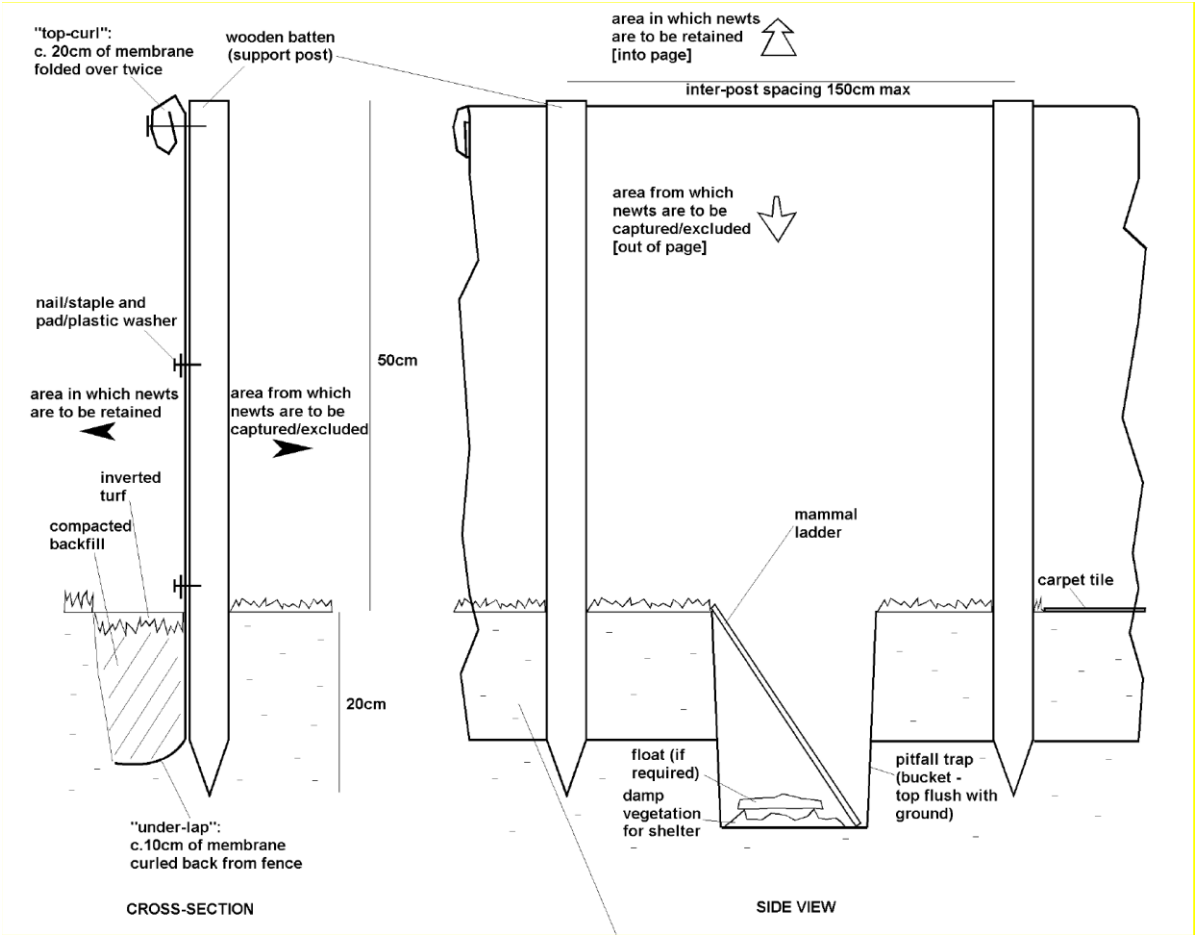
***Note**: Cells highlighted orange indicate a potential detectibility issue due sub-optimal survey condition*

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Appendix E
Exclusion Fence Design

Exclusion Fence Design

Figure 1: Great Crested Newt exclusion fence design: Adapted from Natural England Great crested newt mitigation guidelines (2001).





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