

The background of the report features a series of overlapping, wavy green shapes that create a sense of movement. These shapes are filled with a pattern of green plants, including what appears to be a Great Crested Newt and various aquatic vegetation, all in a lighter shade of green than the background itself.

Great Crested Newt eDNA Survey Report

Wintons Fishery, Burgess Hill

August 2024

Great Crested Newt eDNA Survey Report

Wintons Fishery, Burgess Hill

16/08/2024

Wintons Fishery

Burgess Hill,
West Sussex,
RH15 0DR

Document Control:

Project no.:		Project name:		
12484		Wintons Fishery, Burgess Hill		
Version:	Written by:	Checked by:	Authorised by:	Date:
V1	Amber Howie	Paul Carter	Richard Schofield	16 August 2024

This report has been prepared for the exclusive use of the commissioning party and may not be reproduced without prior written permission from Phlorum Limited.

All work has been carried out within the terms of the brief using all reasonable skill, care, and diligence.

No liability is accepted by Phlorum for the accuracy of data or opinions provided by others in the preparation of this report, or for any use of this report other than for the purpose for which it was produced.

Phlorum Limited

Southern Office: Unit 12, Hunns Mere Way, Brighton, BN2 6AH

T: 01273 307 167 E: info@phlorum.com W: www.phlorum.com

Contents

.....

1.	Introduction.....	1
2.	Methodology	2
3.	Results	6
4.	Discussion and Recommendations	10
5.	Conclusions	12

Appendix A – Survey Maps

Appendix B – Photographs

Appendix C – Legislation

Appendix D – Habitat Suitability Index (HSI) Assessment

1. Introduction

Background

- 1.1 Phlorum Ltd has been commissioned by Wintons Fishery to undertake an environmental DNA (eDNA) survey to assess the presence/likely absence of great crested newt (*Triturus cristatus*) within land associated with the proposed future development of Wintons Fishery, Burgess Hill, West Sussex, RH15 0DR.
- 1.2 The great crested newt survey follows on from a Preliminary Ecological Appraisal (Phlorum, 2023) which identified potentially suitable terrestrial habitat for this species within the site, as well as onsite waterbodies and ponds within proximity which may support breeding great crested newts.
- 1.3 Development proposals for the site involve installation of four new glamping pods at the site.
- 1.4 All mapped ponds and drainage ditches within 250m of the main site area were identified and considered for the survey.

Site Description

- 1.5 The site is located on the outskirts of Burgess Hill, West Sussex. The site is the Wintons Fishery grounds which consist of a series of large fishing lakes, with a series of wet/dry ditches running across the site, small ponds, grassland, scrub and treelines and scattered woodland in the immediate surroundings. There is an adjacent building site that was active at the time of the survey. The land surrounding the site to the south, east, and west is a mix of woodland, grassland, and arable fields, and the land to the north is residential. Ditchling Common is located 600m to the west of the site.
- 1.6 The site comprised hardstanding, modified grassland, lines of trees, introduced shrubs, standing water, and ditches.
- 1.7 The National Grid Reference for the centre of the site is TQ 32408 17772. The survey area extended over approximately 3.4 hectares (ha).

2. Methodology

Data Search

- 2.1 Records for great crested newts from within a 2km radius of the site were requested from Sussex Biodiversity Records Centre (SxBRC, 2023) as part of the Preliminary Ecological Appraisal.

Selection of Waterbodies

- 2.2 All waterbodies and drainage ditches within 250m of the main site area that contained terrestrial habitat suitable for great crested newts, were considered for the survey. Given the typical home range size of great crested newts, it is possible that any newts using these waterbodies for breeding could also use terrestrial habitats within the main site area.
- 2.3 Potentially suitable waterbodies for breeding great crested newts, which require standing water with aquatic vegetation, were initially identified using Multi-Agency Geographical Information for the Countryside (MAGIC, 2023) and aerial photography.
- 2.4 MAGIC shows three large waterbodies and a series of ditches that run from within the site boundary and offsite within 500m of the site boundary. During the PEA habitat survey conducted by Phlorum in 2023, the ditches on site were recorded as dry. These ditches and the lengths that ran off site within 250m of the site were dry at the time of the eDNA surveys and there was no vegetation in the area typical of aquatic conditions. Therefore, this 'pond' has been excluded from the survey.
- 2.5 MAGIC also shows a drainage ditch north of the site, running north to south, north of Folder Lane (not marked on Figure 1, but visible on the image 1). This drainage ditch ran between residential properties. However, this appeared to be a drainage waterway which had moderately fast flowing water and over deep banks and was therefore considered unsuitable for great crested newts and was excluded from the survey.

Habitat Suitability Index (HSI) Assessment

- 2.6 Phlorum undertook a HSI Assessment of each waterbody that was sampled as part of the eDNA survey. 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). The HSI assessment uses ten key habitat criteria and is based on the assumption that habitat quality determines great crested newt population size (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 identify the probability of a pond supporting great crested newts. The five categories are summarised in the table below.

Table 2.1: HSI Assessment Categories

Probability of Pond 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)

- 2.8 It was not possible to carry out a HSI Assessment for drainage ditches, dry waterbodies, or those that could not be accessed.

Environmental DNA Analysis

- 2.9 Environmental DNA (eDNA) analysis is a method of detecting great crested newt occupancy by testing for the presence of DNA from pond or drainage ditch water within a laboratory.

- 2.10 Sampling was undertaken at the identified waterbodies on the 27th June 2024 by experienced Phlorum ecologists. The survey was led by Amber Howie, and assisted by Livia Dry, who are accredited agents under Richard Schofield's licence (Registration Number 2019-39894-CLS-CLS).
- 2.11 In accordance with the specified methodology, the field surveys followed a strict protocol to prevent contamination of the samples; this entailed:
-  A separate set of sterile sampling equipment was used for each waterbody. Sterile gloves were worn at all times during the sampling process.
 -  Samples were collected without entering the water, i.e. the surveyor stood only on the waterbody bank or muddy waterbody edges. This prevented disturbance of the substrate to limit cross-contamination.
- 2.12 The field sampling protocol consisted of the following steps:
-  A total of 20 sub-samples were taken from each waterbody, using a ladle. The location of sub-samples were spaced as evenly as possible around the waterbody margin. Sub-samples targeted both areas with potential egg laying substrate (e.g. vegetation) and open water areas which newts may be using for displaying. Prior to sampling the water column was mixed by gently using the ladle to stir through the entire water column, whilst avoiding disturbing the sediment on the bed of the waterbody. Sampling of very shallow water (less than 5-10cm deep) was avoided where possible.
 -  Once 20 samples had been taken, the sample bag was closed securely and shaken vigorously for 10 seconds. This mixed any DNA across the whole water sample.
 -  Using a clear plastic pipette, c15mL of water was taken from the bag and pipetted into a sterile tube containing 35mL of ethanol to preserve the eDNA sample (i.e. the tube was filled to the 50 mL mark). The tube was then shaken vigorously for 10 seconds to mix the sample and preservative, which prevents DNA degradation. This process was repeated until all six conical tubes provided with each sampling kit had been filled and shaken.
 -  The boxes of preserved sub-samples were then returned to the laboratory (ADAS) for the eDNA analysis to be completed.

Constraints

Data Search Constraints

- 2.13 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.

eDNA Survey Constraints

- 2.14 The presence of dense vegetation or other physical barriers around a waterbody can limit access for water samples to be taken. This may reduce the sampling area to a small portion of the waterbody margin or may prevent access for sampling altogether.
- 2.15 It is only possible to sample waterbodies that are holding water of a minimum depth of 5-10cm at the time of the survey. Dry waterbodies are therefore excluded from the survey, even though they may hold water at other times of year.
- 2.16 Indeterminate eDNA results can be returned if there is:
-  too much silt in the samples;
 -  excess algae in the samples; and /or
 -  there is the formation of a white precipitate in the samples, which results from a chemical reaction between the water sample and preservative solution. This can occur for several reasons, including the waterbody having been treated with chemicals, being located in chalk or limestone areas, or being subject to contaminated runoff.

3. Results

Data Search

- 3.1 The data search returned records for great crested newt within 2km of the main site area within the past 15 years. There were several waterbodies within 500m of the site. The waterbodies with suitable terrestrial habitat within 250m of the site boundary were assessed as part of the survey.

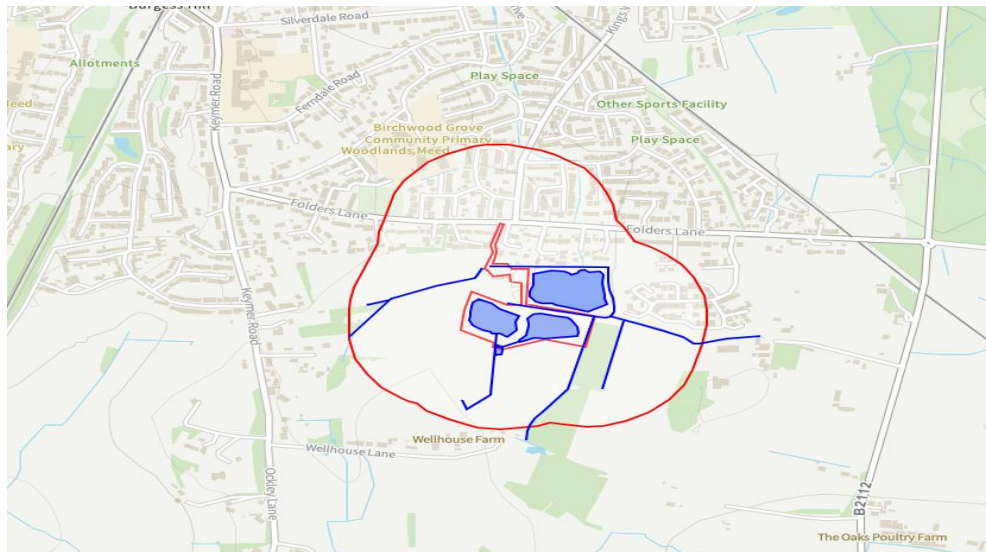


Image 1; the site boundary shown as the innermost redline, and a 250m buffer zone shown as the outer redline. The waterbodies that were surveyed are highlighted in blue. (Magic, 2024).

- 3.2 There are granted European Protected Species Licences (EPSLs) in the immediate and wider surroundings. The closest EPSL for great crested newt is approximately 700m to the north and 1.2km to the west.

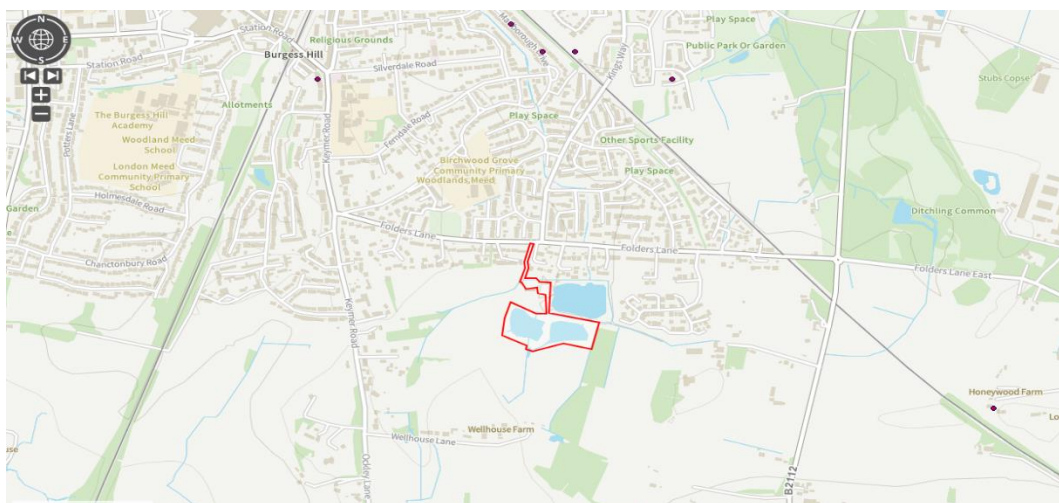


Image 2; Granted European Protected Species Licences (EPSLs) within a 2km search radius. The site is shown as the central red line boundary. There are several granted EPSLs within the wider surroundings. The closest EPSLs granted within the 2km search for great crested newts are shown as the purple dots. (Magic, 2024).

Waterbody Assessments and eDNA Results

- 3.3 Below is a summary of the findings from the eDNA survey. Maps showing the waterbody locations and reference numbers can be found in Figures 1 – 4 in Appendix A, and photographs are provided in Appendix B.

Waterbody 1 (P1)

- 3.4 Waterbody 1 (P1) was a large lake adjacent to the northeast site boundary used within the fishery grounds. The lake is well stocked with large fish and had ducks and geese present.
- 3.5 The HSI score for the pond was calculated at **0.24**. This indicates that the pond has a **'poor'** suitability for great crested newts.
- 3.6 The eDNA result for the pond was **negative** for great crested newt. It is therefore likely that great crested newts were absent from waterbody 1.

Waterbody 2 (P2)

- 3.7 Waterbody 2 (P2) was a large lake within the site boundary that made up the majority of the western site aspect. The lake is well stocked with large fish and had ducks and geese present.
- 3.8 The HSI score for the pond was calculated at **0.23**. This indicates that the pond has a **'poor'** suitability for great crested newts.
- 3.9 The eDNA result for the pond was **negative** for great crested newt. It is therefore likely that great crested newts were absent from waterbody 2.

Waterbody 3 (P3)

- 3.10 Waterbody 3 (P3) was a large lake within the site boundary that made up the majority of the eastern site aspect. The lake is well stocked with large fish and had ducks and geese present.
- 3.11 The HSI score for the pond was calculated at **0.23**. This indicates that the pond has a **'poor'** suitability for great crested newts.
- 3.12 The eDNA result for the pond was **negative** for great crested newt. It is therefore likely that great crested newts were absent from waterbody 3.

Waterbody 4 (P4)

- 3.13 Waterbody 4 (P4) was a small pond at the southern site boundary.
- 3.14 The HSI score for the pond was calculated at **0.52**. This indicates that the pond has an **'below average'** suitability for great crested newts.
- 3.15 The eDNA result for the pond was **negative** for great crested newt. It is therefore likely that great crested newts were absent from waterbody 4.

Ditches

- 3.16 There were several ditches present on site and within the immediate surroundings and 250m buffer.
- 3.17 All of the ditches that ran off site to the south, east and west were dry at the time of the survey and were excluded from the eDNA and HSI surveys.
- 3.18 The drainage ditch to the north within 250m appeared to be drain run offs and were excluded from the survey due to their unsuitability.

Habitat Suitability Index (HSI) Assessment

- 3.19 The results of the HSI assessment are shown below in Table 3.1.

Table 3.1: Summary HSI assessment scores

Waterbody Number	Distance from Site	HSI Score	Waterbody Suitability
P1	10m to the east and north	0.24	Poor
P2	Within the site boundary at the west.	0.23	Poor
P3	Within the site boundary at the east.	0.23	Poor
P4	Within the site boundary at the south.	0.54	Below average

Environmental DNA Survey

- 3.20 The results of the eDNA analysis are detailed below in Table 3.2. Four waterbodies were included in the eDNA analysis. The other waterbodies within 500m of the site were not sampled because they were either dry or could not be accessed.

Table 3.2 Summary results of eDNA analysis.

Sample ID	Waterbody Number	Waterbody grid reference	Detection of <i>Triturus cristatus</i>	Date of Analysis
ADAS-6453	P1	TQ32521789	Negative	16/07/2024
ADAS-6457	P2	TQ32341780	Negative	15/07/2024
ADAS-6460	P3	TQ32471778	Negative	16/07/2024
ADAS-6458	P4	TQ32351770	Negative	15/07/2024

- 3.21 The results show that great crested newts were not present in any of the waterbodies.
- 3.22 Waterbody 1 (P1), a lake, is located 10m north and west of the main site are.
- 3.23 Waterbody 2 (P2), a lake, is located in the west of the main site area
- 3.24 Waterbody 3 (P3), a lake, is located in the east of the main site area.
- 3.25 Waterbody 4 (P4), a pond, is located at the southern boundary of the site.

4. Discussion and Recommendations

Discussion

- 4.1 The survey was carried out during the peak period for eDNA testing for great crested newts. A total of 4 waterbodies were considered relevant and included in the survey. A total of 4 waterbodies were subject to eDNA sampling and analysis. The remaining waterbodies within 250m were excluded from the sampling due to either being dry or access not being possible.
- 4.2 The analysis confirmed the absence of great crested newts in all of the surveyed ponds.
- 4.3 Based on the results of the survey, and considering the typical home range size of a great crested newt, it is concluded that great crested newts are **likely absent** from the main site area.
- 4.4 The proposed development will involve installation of four glamping ponds resulting in the loss of some vegetation. If great crested newts were considered likely to be present in the main site area, licensing would be required. However, based on their likely absence and therefore the unlikelihood of an offence occurring, no licensing for this aspect of the works is recommended.
- 4.5 Given the y nature and method of the proposed development, the risk to great crested newts during this part of the proposed works is considered to be very low. Risk is associated with disturbance to individual newts only, with no permanent habitat loss. It is considered that this risk could be minimised through the adoption of Reasonable Avoidance Measures, negating the need for licencing.

Recommendations

- 4.6 Although no great crested newts were recorded at the site during the surveys, this does not mean their absolute absence and it can only be determined that it is likely that they are absent during the time of surveys. Therefore, the proposed mitigation together with the post development enhancement measures detailed below will ensure that proposed development will not impact upon the conservation status of great crested newts, which is considered to be favourable.

Site Enhancement

Landscape Planting

- 4.7 If possible, planting should include a high proportion of native species and include a mix of shrubs, trees and grassland wherever possible.

- 4.8 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

- 4.9 Log piles could also be installed within suitable habitat within the main site area. 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 or cuboid shape (bound with wire to prevent it breaking apart over time) or stacked against mature trees.
- 4.10 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.

Hibernacula

- 4.11 Hibernacula could also be installed in the main site area. Hibernacula are normally under-ground chambers that amphibians and reptiles can hibernate in over winter. These can be made sunken into the ground, or as raised mound in areas where digging into the ground is not possible, or the ground conditions are impermeable. They are made from a variety of times such as wood, logs, dead wood, rocks, hardcore and other suitable types of rubble. Soil is then cover over the area and a gap provided at the base to enable amphibians and reptiles to enter.

Update Survey

- 4.12 If development works do not commence prior to Spring 2025, it is recommended that an update great crested newt survey will be required, given the mobile nature of this species. The recommendations should then be updated accordingly in line with the findings.

5. Conclusions

- 5.1 Phlorum Ltd was commissioned Wintons Fishery to carry out a great crested newt eDNA survey for the proposed development at Wintons Fishery, Burgess Hill, West Sussex, RH15 0DR. The eDNA survey covered potentially suitable waterbodies within 250m of the main site area.
- 5.2 The eDNA survey confirmed the absence of great crested newts within four waterbodies which fall within 250m of the site.
- 5.3 It was therefore concluded that great crested newts are likely absent from the main site area.
- 5.4 Based on the findings and the proposed works, it has been recommended that a licence with respect to great crested newts will not be required for the proposed development.
- 5.5 It is recommended that site enhancements include features of value to amphibians, and an update survey is carried out if development works have not commenced prior to Spring 2025.

Appendix A Survey Map



Figure 1: Wintons Fishery GCN eDNA Pond Survey Map

Drawn by: AH
On the: 28/07/2024
Not to Scale
Ref: 12484



Phlorum Limited, 12 Hunns Mere Way,
Woodingdean, Brighton, East Sussex,
BN2 6AH
Tel: +44(0)1273 307167
Web: www.phlorum.com
Email: info@phlorum.com

Appendix B

Photographs

Photographs

Photo No.	Feature	Photograph of Feature
1	Waterbody 1 facing east-negative eDNA result.	 27 Jun 2024 at 09:51:01 Wintons Farm Fisheries, Folders Lane Burgess Hill England RH15 0DR United Kingdom
2	Waterbody 1 facing north-negative eDNA result.	 27 Jun 2024 at 10:09:36 Bramley, 56A Folders Lane Burgess Hill England RH15 0DX United Kingdom

- 3 Dry ditches run along the site. Image shows the drainage ditch ring along the northern aspects of the site



- 4 Dry ditch running alongside the adjacent offsite development at the northwest



5

The ditches within the 250m search radius were dry



6

Waterbody 2 facing south—negative eDNA result.



7	Waterbody 2- facing north negative eDNA result.	
8	Waterbody 3 – negative eDNA result.	
9	Waterbody 3 – negative eDNA result.	

10	Waterbody 4 – negative eDNA result.	
11	Waterbody 4 – negative eDNA result.	

12

Dry ditches were resented
around the 250m search
radius



13

Dry ditches at the
northwest



Appendix C

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 D

Habitat Suitability Index (HSI) Assessment

Great Crested Newt Survey

1. Pond Details

Habitat Suitability Index (Pond 1)				SI value
SI1.	Map location	A/B/C	A	1.00
SI2.	Surface area	lengthxwidth	irregular	
			17,642.00	0.01
SI3.	Dessication rate	never/rarely/sometimes/frequently	never	0.90
SI4.	Water quality	good/moderate/poor/bad	good	1.00
SI5.	Shade	% of margin shaded 1m from bank	20	1.00
SI6.	Waterfowl	absent/minor/major	major	0.01
SI7.	Fish population	absent/possible/minor/major	major	0.01
SI8.	Pond density	number of ponds within 1km	7	1.00
SI9.	Terrestrial habitat	good/moderate/poor/isolated	good	1.00
SI10.	Macrophyte cover	%	30	0.61
Note: Guidance in undertaking the HSI is available at www.narrs.org.uk .			HSI score	
			=	0.24
HSI calculation formulae adapted from Rob Oldham			Pond suitability =	poor
Rev 0.1				

Great Crested Newt Survey

1. Pond Details

Habitat Suitability Index (Pond 2)				SI value
SI1.	Map location	A/B/C	A	1.00
SI2.	Surface area	lengthxwidth	irregular	
			8,421	0.01
SI3.	Dessication rate	never/rarely/sometimes/frequently	never	0.90
SI4.	Water quality	good/moderate/poor/bad	good	1.00
SI5.	Shade	% of margin shaded 1m from bank	50	1.00
SI6.	Waterfowl	absent/minor/major	major	0.01
SI7.	Fish population	absent/possible/minor/major	major	0.01
SI8.	Pond density	number of ponds within 1km	7	1.00
SI9.	Terrestrial habitat	good/moderate/poor/isolated	good	1.00
SI10.	Macrophyte cover	%	25	0.56
Note: Guidance in undertaking the HSI is available at www.narrs.org.uk .			HSI score	
			=	0.23
HSI calculation formulae adapted from Rob Oldham			Pond suitability =	poor
Rev 0.1				

Great Crested Newt Survey

1. Pond Details

Habitat Suitability Index (Pond 3)			SI value
SI1. Map location	A/B/C	A	1.00
SI2. Surface area	lengthxwidth	irregular	
		7,550	0.01
SI3. Dessication rate	never/rarely/sometimes/frequently	never	0.90
SI4. Water quality	good/moderate/poor/bad	good	1.00
SI5. Shade	% of margin shaded 1m from bank	30	1.00
SI6. Waterfowl	absent/minor/major	major	0.01
SI7. Fish population	absent/possible/minor/major	major	0.01
SI8. Pond density	number of ponds within 1km	7	1.00
SI9. Terrestrial habitat	good/moderate/poor/isolated	good	1.00
SI10. Macrophyte cover	%	20	0.51
Note: Guidance in undertaking the HSI is available at www.narrs.org.uk .			HSI score =
HSI calculation formulae adapted from Rob Oldham			0.23
Rev 0.1			Pond suitability =
			poor

Great Crested Newt Survey

1. Pond Details

Habitat Suitability Index (Pond 4)			SI value
SI1. Map location	A/B/C	A	1.00
SI2. Surface area	lengthxwidth	irregular	
		7,550	0.01
SI3. Dessication rate	never/rarely/sometimes/frequently	never	0.90
SI4. Water quality	good/moderate/poor/bad	good	1.00
SI5. Shade	% of margin shaded 1m from bank	30	1.00
SI6. Waterfowl	absent/minor/major	major	0.01
SI7. Fish population	absent/possible/minor/major	major	0.01
SI8. Pond density	number of ponds within 1km	7	1.00
SI9. Terrestrial habitat	good/moderate/poor/isolated	good	1.00
SI10. Macrophyte cover	%	20	0.51
Note: Guidance in undertaking the HSI is available at www.narrs.org.uk .			HSI score =
HSI calculation formulae adapted from Rob Oldham			0.23
Rev 0.1			Pond suitability =
			poor



Phlorum Limited

Head Office & Registered Office:

Unit 12
Hunns Mere Way
Woodingdean
Brighton
East Sussex
BN2 6AH
T: 01273 307 167

Northern Office:

Ground Floor
Adamson House
Towers Business Park
Wilmslow Road
Didsbury
Manchester
M20 2YY
T: 0161 955 4250

Western Office:

One Caspian Point
Pierhead Street
Cardiff Bay
Cardiff
CF10 4DQ
T: 029 2092 0820

info@phlorum.com
www.phlorum.com

Registered in England & Wales. Reg No. 4967256