



Sandleford Park, Newbury

Appendix F2: Great Crested Newt Survey Report



Bloor Homes & The Sandleford Farm Partnership

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Figure 1 – Site Location Plan

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Executive Summary

Contents	Summary
Site Location	<p>The site is located at Sandleford Park in Newbury, West Berkshire, centred on OS Grid Reference SU 46847 64550. The site comprises agricultural fields with areas of grassland and several copses of ancient woodland. A central valley runs from the north-western corner of the site towards the River Enborne at the site’s southern boundary.</p>
Existing Site Information	<p>WYG completed an initial ecological appraisal in 2008 with update surveys completed in 2011, 2013, 2015, 2016 and 2017. These surveys identified potentially suitable habitat for great crested newt (GCN).</p> <p>In May 2011 GCN presence/likely absence surveys were undertaken on six waterbodies on site. No signs of GCN were identified and therefore assumed to be likely absent. Update surveys were completed in 2013 which also didn’t identify any signs of GCN, resulting in the assumption that GCN are still likely to be absent from the site.</p> <p>During 2017 eDNA sampling was completed.</p>
Scope of this Survey(s)	<p>To determine if Great Crested Newts are present/likely absent within the site and its adjacent habitats and the ecological constraints associated with development. Further recommendations regarding mitigation, enhancement and avoidance are made where appropriate.</p>
Results	<p>No great crested newts were recorded during the 2017 eDNA surveys and no traces of eDNA were found within water samples. GCN are therefore still assumed to be likely absent from the site and are not considered to represent a constraint to proposed development.</p>
Recommendations	<p>Great crested newts are considered likely to be absent from the site. Advice is provided in the unlikely event that a great crested newt is found on site.</p>



Glossary

AONB	Area(s) of Outstanding Natural Beauty
Badger Act	Protection of Badgers Act 1992
BCT	Bat Conservation Trust
BoCC	Bird(s) of Conservation Concern
BTO	British Trust for Ornithology
CEcol	Chartered Ecologist
CEnv	Chartered Environmentalist
CIEEM	Chartered Institute of Ecology & Environmental Management
CRoW Act	Countryside and Rights of Way Act 2000
EcIA	Ecological Impact Assessment
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
EMP	Ecological Management Plan
EPS	European Protected Species
EPSL	European Protected Species Licence
GCN	Great Crested Newt
Habitat Regulations	Conservation of Habitats and Species Regulations 2017
HAP	Habitat Action Plan
Hedgerow Regulations	Hedgerow Regulations 1997
HPI	Habitat(s) of Principal Importance
HRA	Habitats Regulations Assessment
JNCC	Join Nature Conservancy Council
LERC	Local Ecological Record Centre
LBAP	Local Biodiversity Action Plan
LNR	Local Nature Reserve
LPA	Local Planning Authority
LWS	Local Wildlife Site
MCIEEM	Member of Chartered Institute of Ecology & Environmental Management
Natura 2000 site	A European site designated for its nature conservation value
NE	Natural England
NERC Act	Natural Environment and Rural Communities Act 2006
NNR	National Nature Reserve
NPPF	Revised National Planning Policy Framework
PEA	Preliminary Ecological Appraisal
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SAP	Species Action Plan
SNCO	Statutory Nature Conservation Organisations
SPA	Special Protection Area
SPI	Species of Principal Importance
SSSI	Site(s) of Special Scientific Interest
W&CA	Wildlife & Countryside Act 1981
FPN	Female palmate newt
MPN	Male palmate newt
FSN	Female smooth newt
MSN	Male smooth newt



1.0 Introduction

1.1 Background

Great crested newt surveys have been completed at the site in 2011 and in 2013, with eDNA sampling completed in 2017. WYG was commissioned by Bloor Homes and the Sandleford Farm Partnership in December 2018 to review the findings of the great crested newt (GCN) surveys with reference to the current proposals.

1.2 Site Location

The site is located at Sandleford Park in Newbury, West Berkshire and is centred at Ordnance Survey National Grid Reference SU 46847 64550. The survey area, hereafter referred to as the 'site', is shown on Figure 1 and comprised of agricultural fields with areas of grassland and several copses of ancient woodland dispersed throughout. A central valley runs from the north-western corner of the site towards the River Enborne at the site's southern boundary.

For details of the development description, please see the main ES chapter.

1.3 Purpose of the Report

The aims of the survey work and the subsequent report presented herein were to:

- Review the status of GCN on the site; and
- Provide preliminary advice on mitigation strategies against any adverse effects on local great crested newt population(s) which may arise as a result of the proposed development.



2.0 Methodology

2.1 Desk Study

2.1.1 Previous Reports

WYG completed an initial ecological appraisal in 2008 with update surveys completed regularly, with the most recent being in 2017.

In May 2011 great crested newt presence / likely absence surveys were undertaken on six waterbodies on site. The presence of great crested newts within the ponds surveyed at the site was not confirmed and with a reasonable degree of confidence, it was considered that the ponds within the site do not support a population of great crested newts. Update great crested newt presence / likely absence surveys were completed in 2013 and no great crested newts were recorded during the survey. The results of the eDNA surveys in 2017 are discussed in detail in this report.

Aspect ecology completed survey work within Sandleford Park West during 2015 and onwards of 5 ponds (P1a, P2a, P3a, P4a and P5a), four of which held water at the time of survey (P2a-P5a). In addition, two offsite ponds present within 250m of the site (P6a and P7a) which held water were also subject to further survey work. A total of six ponds were assessed for their suitability for GCN using a habitat suitability index (HSI) with subsequent presence/likely absence surveys completed of P2a-P7a (Aspect Ecology, 2017). No GCN were found, and the results of these surveys are discussed in section 3.0. **Please note that in the Aspect Ecology report the ponds are numbered 1-7 but have been referenced with a suffix of 'a' in this report to distinguish them from the WYG references.**

2.1.2 Local Ecological Records Centre

Up to date information was requested from the Hampshire Biodiversity Information Centre (HBIC) and the Thames Valley Environmental Records Centre (TVERC) in November 2017 for information on any nature conservation designations and protected or notable species records within 2 km of the site.

The data search covers:

- Statutory designated sites for nature conservation, namely SACs, SPAs, Ramsar sites, SSSIs, NNRs and LNRs;
- Non-statutory designated sites for nature conservation, namely LWS;
- Legally protected species, such as great crested newts, bats and badger;
- Notable habitats and species, such as those listed as Habitats or Species of Principal Importance; and,
- Priority habitats or species within both HBIC and TVERC areas.

2.1.3 Online Resources

A search for relevant information was also made on the following websites:

- MAGIC www.magic.gov.uk - DEFRA's interactive, web-based database for statutory designations and information on any EPSL applications that have been granted in the local area since 2015.



2.2 Habitat Surveys

In accordance with English Nature's *Great Crested Newt Mitigation Guidelines* (2001), ponds within 500m of the proposed development site, where accessible, were assessed for their potential to support great crested newts, including the completion of a Habitat Suitability Index (HSI), and any ponds considered suitable were subject to a presence / likely absence survey. In any instance when great crested newts were confirmed to be present, additional surveys would be undertaken to determine a population estimate.

2.2.1 Pond Assessment

Pond assessments were undertaken of 11 water bodies (no access was possible to P11, in Corporation Copse), their locations in relation to the proposed development site are shown on Figure 2 and they are individually described in section 3.2.1. In addition, pond descriptions have been included from the Warren Farm ecological assessment by Aspect Ecology (2017). These assessments are based on guidance within Froglife's *Great Crested Newt Conservation Handbook* (2003) and the Herpetological Conservation Trust's *National Amphibian and Reptile Recording Scheme* (NARRS) (2008).

2.2.1 Habitat Suitability Index

The Habitat Suitability Index (HSI) provides an objective method for assessing the suitability of a pond as habitat for great crested newts (Oldham et al., 2000; Herpetological Conservation Trust, 2008). The system provides an index between 0 and 1, with 0 indicating unsuitable habitat and 1 optimal habitat. Ten suitability indices are used to calculate the index score, each representing a factor considered to affect great crested newts. These factors are listed and briefly explained below:

Location: i.e. where the pond is located in the British Isles. It accommodates large scale habitat features, which affect the distribution of great crested newts within the British Isles, including climate, substrate and altitude. The British Isles is divided into "optimal", "marginal" and "unsuitable" i.e. a low probability of occurrence;

1. *Pond area:* i.e., the water surface area of a pond. Suitability peaks at approximately 800m²;
2. *Pond drying:* how often a particular pond dries out. Ponds which dry out more frequently are less suitable;
3. *Water quality:* an indication of water quality based on the invertebrate diversity present. High invertebrate diversity indicates high water quality and suitability;
4. *Shade:* an estimate of the total shaded perimeter of a pond. Shoreline shade below 60% is optimal;
5. *Fowl:* indication of impact by waterfowl. High waterfowl numbers are generally considered detrimental;
6. *Fish:* indication of fish abundance. High fish numbers are generally considered detrimental;
7. *Pond count:* based on the density of ponds occurring within 1km of a particular pond. Suitability is positively correlated with pond density;



8. *Terrestrial habitat*: based on the availability of suitable habitat in the pond vicinity, e.g. rough grassland, scrub and woodland. For this assessment, the categories provided in the NARRS Survey Pack (Herpetological Conservation Trust, 2008) were used. This differs from the assessment criteria by Oldham et al. (2000), and is based on work by Lee Brady (unpublished); and
9. *Macrophytes*: based on an estimate of the percentage cover by emergent and aquatic vegetation. Suitability peaks at between 70% and 80% cover.

The results are also compared against a categorical scale developed by Lee Brady (unpublished). Results from individual water bodies are categorised as follows:

- <0.5 = poor
- 0.5 – 0.59 = below average
- 0.6 – 0.69 = average
- 0.7 – 0.79 = good
- >0.8 = excellent

The Habitat Suitability Index was applied to all ponds and data was collected during May 2011 and updated in April 2013, March 2015 and December 2017.

2.3 Presence/Likely Absence Surveys (2015)

The aim of the initial surveys was to determine the presence or likely absence of great crested newts at the identified waterbodies.

Great crested newt presence / likely absence surveys were completed on four occasions between 23rd April and 22nd May 2015. All surveys were undertaken by Emily Hare (Natural England Level 1 Class Licence number: 2015-8652-CLS-CLS).

All waterbodies were visited four times, in accordance with the *Great Crested Newt Mitigation Guidelines* (English Nature, 2001) requirements for presence / likely absence surveys. At least three survey methods were performed on each survey in accordance with guidelines given in the *Great Crested Newt Mitigation Guidelines* and the *National Amphibian and Reptile Recording Scheme* (The Herpetological Conservation Trust, 2008) as described below prior to the waterbodies becoming too dry for surveys. Two of the surveys were completed within the optimal survey window which runs from mid-April to mid-May.

2.3.1 Torchlight Survey

This technique involves a visual search for individual newts inhabiting the edges of the particular waterbody after dark. Torches rated at 1,000,000 candle-power were shone into the water during a search and the perimeter of the waterbody was walked once; care was taken to count individuals once only. To maximise the reliability of this technique, all torch surveys were conducted in the evening while air temperature exceeded 5°C, when newts are generally considered being most active.

2.3.2 Egg Search

Great crested newt eggs were searched for among submerged, floating and other aquatic vegetation. When laying their eggs, this species folds leaves of aquatic plants around the egg. The identification of great crested newt eggs is exploited as evidence indicative of the presence of great crested newts



in a particular waterbody; eggs of great crested and smooth newts (*Lissotriton vulgaris*) are easily discerned. However, egg numbers cannot be used to estimate population size due to predation and high mortality rates. Therefore, to limit disturbance, this unfolding of leaves or artificial substrate is ceased as soon as the first egg has been positively identified.

2.3.3 Netting

A long handled dip net was used to sample the area around the pond edge and along the ditches. The netting was conducted during the evening as better results are obtained at night when adult newts are more likely to be active. The perimeter of the pond was walked where access was possible and 15 minutes of netting was undertaken per 50 metres of the pond edge as recommended in the Great Crested Newt Mitigation Guidelines (2001). Netting is a good technique for augmenting other surveys and gauging presence / likely absence.

2.3.1 Bottle Trapping

Traps were constructed from two-litre plastic bottles and were set around the margins of waterbodies approximately every 2-3m where access allowed, shortly before dusk. The traps were checked and removed the following morning between 06:00am and 10:00am. All surveys were undertaken when the predicted night time air temperature exceeded 5°C, when great crested newts are most active. Traps were placed in ditch 2 and pond 5 as these were the only waterbodies where enough water was present to submerge the traps (See Figure 2).

2.4 Population Size Class Assessment

In accordance with guidance from Natural England, a further two targeted visits are made where positive results were obtained during the presence / likely absence surveys to gather information regarding the size class of the great crested newt population. Size classes are based on maximum count of great crested newts achieved during any single survey at a particular waterbody – i.e. the highest count obtained from bottle trapping or torchlight survey on a single visit. Maximum counts are classed as 'small', 'medium' or 'large'. The population size classes are defined as follows:

- 'small' is for maximum counts of up to 10 adult great crested newts;
- 'medium' for maximum counts of between 11 and 100 adults; and
- 'large' for maximum counts of over 100 adults.

2.5 eDNA Sampling (2017)

Visits to site during additional protected species surveys prior to the commencement of the eDNA sampling in 2017 identified that all accessible waterbodies except for Pond 12 were dry and therefore not possible to survey during 2017, and as such were considered unsuitable to support breeding GCN.

In line with Natural England's accepted protocol (*WC1067 Appendix 5. Technical advice note for field and laboratory sampling of great crested newt (Triturus cristatus) environmental DNA*) a total of 20 water samples were taken from Pond 12 to form the basis of the DNA analysis. These samples were taken from locations around the waterbodies' margins which could be utilised by GCN for egg laying or displaying. Approximately 15 ml of water was taken from the sample and placed into the test tubes. These samples were then sent to ADAS for analysis.



The surveyors who took the samples adhered to the instructions enclosed within the sample kit, wearing the gloves provided within each kit for the duration of the sampling for that individual waterbody and changed gloves for the two waterbodies sampled. The surveyors did not enter the waterbody to minimise any historical DNA data which could be present on the surveyor's boots (Department of Food and Rural Affairs (DEFRA) 2015).

Surveys were undertaken between mid-April and June, the period when GCN are most likely to be present within a waterbody and therefore, their DNA can be detected within the water.

2.6 Limitations

Access was not possible to P11, off site in Corporation Copse, however, given the distance between this pond and the proposed works, this is not considered to represent a significant limitation to the survey results.

Access was also not possible to ponds P1a – P7a within Warren farm. However, these were surveyed, where accessible by Aspect Ecology (2017), and no great crested newts were found.

The results of this report will remain valid for two years (i.e. until Spring 2019). If works have not commenced by this time, it may be necessary to reassess the habitats, and, if appropriate, update the species survey.



3.0 Results

3.1 Desk Study

3.1.1 Local Records Centre

Records are used to inform field surveys about the possible presence of a species in a particular area at an early stage of the investigation. The existence of records indicates that a particular species has at least been present at a particular location; however, absence of records cannot be interpreted as a species' absence at a location of interest.

- The TVERC returned 45 records of Great Crested Newts within 2km of the site with the closest record being 1.28km North-East within Haysoms pond, Newbury.
- HBIC returned no records of great crested newts inside the search area considered.

Many of these records are for Greenham Common Site of Special Scientific Interest (SSSI) which lies to east of the development site. Newtown Road creates a barrier between the site and these records, so it is unlikely that great crested newts would move across from the SSSI onto the development site.

3.2 Survey

3.2.1 Description of Waterbodies

Detailed descriptions of each water body surveyed and identified in the application area or within 500m of the boundary are given below in **Table 1**. The purpose of these descriptions is to determine the waterbodies' suitability as breeding habitat for great crested newts. Therefore, information on water depth, water quality, bank profile, presence of aquatic, emergent and surrounding vegetation, as well as suitability of the surrounding terrestrial habitat has been provided. A grid reference is provided for each waterbody; refer to Figure 2 for an indication of their positions in relation to the proposed development.

Table 1. Pond Descriptions – WYG and Aspect Ecology (2017)

Pond Reference	OS grid Reference	Distance (km) and Direction	Approximate size (m ²)	Description
P1	SU471640	On development site	868	Large, deep pond within woodland, surrounded by vegetation, wet on all survey visits. Water flows into and out of the pond and out of the pond via a network of ditches.
P2	SU472639	On development site	612	Pond within woodland, surrounded by vegetation. A collection of smaller ponds joined together.
P3	SU461642	Approximately 2.14 km SW	50	Small, very shallow series of puddles within Brick Kiln Copse, almost dry.
P4	SU461642	Approximately 2.0 km SW	30	Small, very shallow series of puddles within Brick Kiln Copse, almost dry.



P5	SU473645	On development site	32	Small, heavily shaded pond, surrounded by dense vegetation, almost dry at the time of survey.
P6	SU473647	On development site	16	Small, heavily shaded pond surrounded by dense vegetation, almost dry at the time of survey, very steep banks so largely inaccessible.
P7	SU473647	On development site	736	Man-made balancing pond, with fairly steep banks, completely dry at the time of survey.
P8	SU474648	On development site	833	Man-made balancing pond, with fairly steep banks, completely was dry at the time of survey.
P9	SU470649	On development site	84	Small, heavily shaded, steep banked pond near Crook's Copse. Vegetation was very dense and sides very steep so limited access, quite shallow.
P10	SU465646	On development site	0	OS maps show this pond is located at the edge of Barn Copse, however at the time of survey it was not visible, a damp depression was present but not suitable for survey.
P11	SU460635	Approximately 0.5 km SW	72	Pond within Corporation Copse, no access could be gained to survey this pond.
P12	SU472646	Immediately adjacent to boundary	2700	Large man made balancing pond within Newbury College grounds, mostly shallow banks, with emergent vegetation present around edges of pond.

The below findings are from Aspect Ecology (2017)

<i>P1a</i>	<i>SU46197 64237</i>	<i>Within Brick Kiln Copse</i>	<i>500</i>	<i>large area of bare earth scattered with leaf litter, which did not appear to have held water prior to, or throughout the 2015 survey work.</i>
<i>P2a</i>	<i>SU46180 64245</i>	<i>Within Brick Kiln Copse</i>	<i><50</i>	<i>The water was recorded to be very shallow, measuring approximately 2-4cm at the time of survey, with large areas of wet mud exposed. No</i>



				<i>aquatic or emergent plants were recorded.</i>
<i>P3a</i>	<i>SU 46154 64234</i>	<i>Within Brick Kiln Copse</i>	<i><50</i>	<i>The pond is located within a depression in an area of gravel which appears to represent part of an old track, and does not support any vegetation.</i>
<i>P4a</i>	<i>SU 46045 64522</i>	<i>Within residential garden off warren road</i>	<i><50</i>	<i>The pond is lined, and supports a number of aquatic amenity species. The pond is surrounded by amenity grassland and amenity planting beds. A large number of fish were noted within the pond</i>
<i>P5a</i>	<i>SU 46048 64576</i>	<i>Within park house school grounds</i>	<i><50</i>	<i>The small lined pond almost completely dry at the time of survey, with only a small pool of water present at the time of survey, with a large amount of algae present.</i>
<i>P6a</i>	<i>SU 46050 64593</i>	<i>Within park house school grounds</i>	<i><50</i>	<i>Small amenity pond with vertical sides featuring no sloping banks, limiting egress. Supports some amenity emergent and aquatic vegetation.</i>
<i>P7a</i>	<i>SU 46054 64632</i>	<i>Within park house school grounds</i>	<i><50</i>	<i>Similar to pond 6a.</i>

3.2.2 Habitat Suitability Index

WYG Survey

Results for the Habitat Suitability Index revealed one pond in the 'excellent' category, three ponds in the 'average' category, three in the 'below average' category and three in the 'poor' category. An HSI was not completed for two of the ponds as P10 was not present at the time of survey and access could not be gained to P11. Suitability indices for each pond surveyed are given in Table 2 below; refer to Plan 1 for the location of each pond in relation to the proposed development site.



Table 2. Habitat Suitability Index Results

Pond Reference	P1	P2	P3	P4	P5	P6
SI1 Field location	1.00	1.00	1.00	1.00	1.00	1.00
SI2 Pond area	0.97	1.00	0.10	0.06	0.06	0.03
SI3 Pond drying	0.90	0.10	0.10	0.10	0.50	0.50
SI4 Water quality	1.00	0.67	0.67	0.67	0.67	0.67
SI5 Shade	1.00	1.00	1.00	1.00	0.60	0.40
SI6 Fowl	0.67	1.00	1.00	1.00	1.00	1.00
SI7 Fish	1.00	1.00	1.00	1.00	1.00	1.00
SI8 Ponds	1.00	1.00	1.00	1.00	1.00	1.00
SI9 Terrestrial habitat	1.00	1.00	1.00	1.00	1.00	1.00
SI10 Macrophytes	0.33	0.36	0.31	0.31	0.31	0.31
HSI SCORE :	0.85	0.69	0.54	0.51	0.58	0.52
Pond Suitability :	Excellent	Average	Below Average	Below Average	Below Average	Below Average

Pond Reference	P7	P8	P9	P12
SI1 Field location	1.00	1.00	1.00	1.00
SI2 Pond area	0.99	0.98	0.17	0.68
SI3 Pond drying	0.10	0.10	0.50	0.90
SI4 Water quality	DRY	DRY	1.00	1.00
SI5 Shade	1.00	1.00	0.30	1.00
SI6 Fowl	1.00	1.00	1.00	0.67
SI7 Fish	1.00	1.00	1.00	0.67
SI8 Ponds	1.00	1.00	1.00	1.00
SI9 Terrestrial Habitat	0.67	0.67	1.00	1.00
SI10 Macrophytes	0.31	0.31	0.31	0.41
HSI SCORE :	0.43	0.43	0.62	0.80
Pond Suitability :	Poor	Poor	Average	Excellent



Aspect Ecology Survey

Given that the HSI assessment concluded that only two of the ponds were of 'poor' suitability (and therefore the potential presence of Great Crested Newts cannot be ruled out, especially given that a number of the ponds are present within Brick Kiln Copse, which represents excellent terrestrial habitat for amphibians), further survey visits were carried out to confirm the likely presence/absence of Great Crested Newts within ponds P2a-P7a (Aspect Ecology, 2017).

Table 3 Results of HSI assessment of onsite and offsite ponds.

Pond	Suitability Index										HSI Score	Suitability for GCN
	SI1	SI2	SI3	SI4	SI5	SI6	SI7	SI8	SI9	SI10		
P2a	1	1	0.5	0.33	0.2	1	1	0.9	1	0.3	0.62	Average
P3a	1	0.05	0.5	0.33	0.4	1	1	0.9	1	0.3	0.5	Below average
P4a	1	0.05	0.9	0.67	1	1	0.01	0.85	0.33	0.35	0.35	Poor
P5a	1	0.05	0.5	0.33	1	1	1	0.8	1	0.3	0.54	Below average
P6a	1	0.05	0.9	1	1	1	1	0.8	0.67	0.9	0.68	Average
P7a	1	0.05	0.9	1	1	1	0.33	0.8	0.01	0.8	0.4	Poor

3.2.3 Presence / Likely Absence Survey Results – WYG (2015)

Ponds 1, 2, 9 and 12 were surveyed for the presence / likely absence to support great crested newt as the HSI identified these ponds as being most suitable to support this species.

Weather Conditions

An overview of the weather conditions during surveys are given in **Tables 3-6** below. Bottle traps were set on the evening before sunset, whilst torchlight surveys were conducted after sunset. Bottle traps were then checked the following morning, when egg searches were also conducted. Netting of waterbodies was completed either in the evening prior to setting the bottle traps or in the morning once bottle traps had been collected.

Table 4. Weather and pond conditions – Pond 1

Survey	Date	Water temp (PM) (°C)	Water temp (AM) (°C)	Air temp (PM) (°C)	Air temp (AM) (°C)	Turbidity	Veg cover
1	23/04/15	15.5	9.3	17.0	7.0	4	0
2	06/05/15	12.4	10.2	12.2	10.0	3	0
3	12/05/15	14.7	10.6	14.6	10.7	3	1
4	21/05/15	14.0	11.0	15.6	10.4	3	0

**Table 5. Weather and pond conditions – Pond 2**

Survey	Date	Water temp (PM) (°C)	Water temp (AM) (°C)	Air temp (PM) (°C)	Air temp (AM) (°C)	Turbidity	Veg cover
1	23/04/15	14.0	8.5	17.0	7.0	3	0
2	06/05/15	11.5	9.4	11.4	9.2	3	0
3	12/05/15	13.0	9.4	10.0	10.2	3	0
4	21/05/15	13.4	9.3	15.6	9.6	3	0

Table 6. Weather and pond conditions – Pond 9

Survey	Date	Water temp (PM) (°C)	Water temp (AM) (°C)	Air temp (PM) (°C)	Air temp (AM) (°C)	Turbidity	Veg cover
1	23/04/15	12.6	N/A	9.7	N/A	3	0
2	06/05/15	10.5	9.4	8.9	9.0	3	0
3	12/05/15	12.1	9.0	9.0	9.0	4	0
4	21/05/15	11.4	9.5	9.9	10.6	3	0

Table 6. Weather and pond conditions – Pond 12

Survey	Date	Water temp (PM) (°C)	Water temp (AM) (°C)	Air temp (PM) (°C)	Air temp (AM) (°C)	Turbidity	Veg cover
1	23/04/15	17.8	14.1	8.9	8.6	1	1
2	06/05/15	14.0	13.6	10.3	10.6	1	2
3	12/05/15	17.8	14.9	9.0	9.0	1	2
4	21/05/15	18.0	14.7	10.6	10.6	1	2

Table 7 shows the results from the netting and torchlight surveys; **Table 8** shows the results of the bottle trapping surveys and **Table 9** shows the results of the egg searching. Results for palmate newts and smooth newt are included.



Table 7. Netting and Torchlight Survey Results

Waterbody	Date: 23/04/2015		Date: 06/05/2015		Date: 12/05/2015		Date: 21/05/2015	
	Net	Torch	Net	Torch	Net	Torch	Net	Torch
1	0	0	0	1MPN	0	3FPN 4MPN	0	4FPN
2	0	2MPN, 2FPN	0	1FPN	0	3MPN	0	0
9	1UPN	0	0	0	0	0	0	2MPN
12	0	2MSN 6FSN	0	3MSN 2FSN	1FSM	4MSN 8FSN	0	1MSN 2FSN 4MPN 1 imm. PN

Table 8. Bottle Trapping Results

Waterbody	Date: 23/04/2015	Date: 06/05/2015	Date: 12/05/2015	Date: 21/05/2015
1	2PMN 2FPN	1MPN	5MPN	2FPN
2	2MPN	3MPN	0	0
9	0	0	0	1MPN 2FPN
12	2MSN 1FSN	0	2MSN 1FPN	11MSN 2FSN 3MPN 1FPN

Table 9. Egg Searching Results

Waterbody	Date: 23/04/2015	Date: 06/05/2015	Date: 12/05/2015	Date: 21/05/2015
1	0	0	0	0
2	0	0	0	0
9	0	0	0	0
12	0	0	0	0

3.2.4 Presence / Likely Absence Surveys – Aspect Ecology (2017)

Four presence/likely absence survey visits of each pond (P2a – P7a) recorded no Great Crested Newts, with only a small number of Smooth and Palmate newts recorded during the survey work. As such, based on the specific survey work undertaken, it is concluded that Great Crested Newts are



absent from the site and accordingly, the site is of negligible importance to Great Crested Newts, and of no more than site level importance to other amphibian species (Aspect Ecology, 2017)

3.2.5 WYG eDNA Survey Results (2017)

The samples collected from Pond 12 on the 11th May 2017 were assessed by the laboratory as acceptable samples and satisfied their criteria for determining the presence of GCN DNA i.e. not contaminated. **The eDNA sampling did not identify any GCN DNA within the waterbody sampled situated adjacent to the proposed development.**



4.0 Relevant Legislation

4.1 Conservation of Habitats & Species Regulations 2017

Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species (listed in Annexes I or II of the Habitats Directive respectively) to the European Commission. These sites, if ratified by the European Commission, are then designated as Special Protection Areas (SPAs) within six years. Public bodies must also help preserve, maintain and re-establish habitats for wild birds.

The Regulations also make it an offence to deliberately capture, kill, disturb or trade in the animals listed in Schedule 2, or pick, uproot, destroy, or trade in the plants listed in Schedule 5. The Great Crested Newt is listed in Schedule 2.

4.2 Wildlife and Countryside Act 1981 (as amended)

The great crested newt is also listed on Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended) which makes it an offence to:

- Deliberately, intentionally or recklessly kill, injure or take a great crested newt;
- Deliberately, intentionally or recklessly takes or destroys the eggs;
- Possess or control any live or dead specimen or anything derived from a great crested newt;
- Deliberately, intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt; and
- Deliberately, intentionally or recklessly disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.



5.0 Discussion

5.1 Ecological Constraints, Impacts and Recommendations

The presence of great crested newts within the ponds surveyed at the Sandleford site was not confirmed and with a reasonable degree of confidence, based on guidance recommended by Natural England, it is considered that the ponds within the site do not support a population of great crested newts. The presence / likely absence survey set out to confirm the presence or likely absence of amphibians and identified only low numbers of palmate newts in Ponds 1, 2 and 9 and both palmate and smooth newts within Pond 12. No access could be gained to the pond within Corporation Copse outside of the development footprint to the south of the site. This pond lies approximately 500 metres from the proposed development so is on the limit of the distance great crested newts would travel between ponds. As no great crested newts were confirmed during the presence / likely absence survey this suggests that great crested newts are likely to be absent. This is supported by the negative eDNA result (2017), and the results of the surveys by Aspect Ecology (2018). As a result, it is considered works can continue in accordance with the legislation without a licence.

5.2 Recommendations

In the unlikely event that a great crested newt is found during the development works, the following points should be followed by all staff throughout the duration of works:

- Stop all work activities immediately;
- Do not attempt to handle the great crested newt;
- Contact the project ecologist; and
- Wait for further instruction from the ecologist before proceeding with any further works.

Should a great crested newt be discovered during works it is likely that works will be delayed, but it is imperative these procedures are followed immediately to avoid committing an offence under the Wildlife and Countryside Act 1981 (as amended) and/or the Conservation of Habitats and Species Regulations 2012, as amended.



6.0 References

- Aspect Ecology (2017) New Warren Road and Sanfoin: Baseline Ecological Appraisal
- Biggs J, Ewald N, Valentini A, Gaboriaud C, Griffiths RA, Foster J, Wilkinson J, Arnett A, Williams P and Dunn (2014) Analytical and methodological development for improved surveillance of the Great Crested Newt. Appendix 5. Technical advice note for field and laboratory sampling of great crested newt (*Triturus cristatus*) environmental DNA. Freshwater Habitats Trust, Oxford.
- English Nature (2001) Great Crested Newt Mitigation Guidelines, Peterborough.
- Froglife (2003) Great Crested Newt Conservation Handbook, Froglife, Halesworth, Suffolk.
- Gent, T. & Gibson, S. (2003) Herpetofauna Workers' Manual. JNCC, Peterborough.
- Herpetological Conservation Trust (2008) National Amphibian and Reptile Recording Scheme.
- Oldham, R.S.; Keeble, J.; Swan, M.J.S. & Jeffcote M. (2000) Evaluating the suitability of habitat for the great crested newt (*Triturus cristatus*), *The Herpetological Journal* 10 (4), 143-155.
- WYG (2015) Sandleford Park, Newbury: Great Crested Newt Survey Report



FIGURES

Figure 1 – Site Location Plan

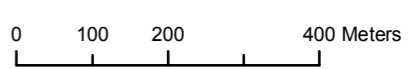
Figure 2 – Location of Ponds



Rev	Date	Notes
A	09/03/18	Initial map production

Legend

 SiteBoundary



Site Plan - March 2018

**Sandleford Park, Newbury
Bloor Homes & Sandleford Farm Partnership**

Scale at A3: 1:10,000	Project No: A070660-23	Drawing No: Figure 1	Revision: A
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Drawn by: Alex Hellyar	Drawn date: 09/03/2018	Approved by: Tamsin Clark
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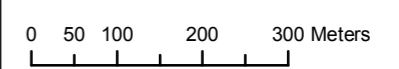
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Rev	Date	Notes
A	09/03/18	Initial map production

Legend

-  Site Boundary
-  500m Buffer
-  Pond
-  Dry Waterbody



Pond Locations

**Sandleford Park, Newbury
Bloor Homes & Sandleford Farm Partnership**

Scale at A3: 1:8,850	Project No: A070660-23	Drawing No: Figure 2	Revision: A
Drawn by: Alex Hellyar	Drawn date: 09/03/2018	Approved by: Tamsin Clark	

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