

**MIRA TECHNOLOGY PARK SOUTH SITE,
WATLING STREET, WARWICKSHIRE**

GREAT CRESTED NEWT SURVEY

A Report to: ERI MTP Limited

Report No: RT-MME-157459-01

Date: August 2022



Triumph House, Birmingham Road, Allesley, Coventry CV5 9AZ

Tel: 01676 525880

Fax: 01676 521400

E-mail: admin@middlemarch-environmental.com Web: www.middlemarch-environmental.com

REPORT VERIFICATION AND DECLARATION OF COMPLIANCE

Report Version	Date	Completed by:	Checked and approved by:
Final	09/08/2022	Helen Griffin ACIEEM (Senior Ecological Consultant)	Lucy Philpott CEnv. MCIEEM (Associate Director)

The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

DISCLAIMER

The contents of this report are the responsibility of Middlemarch Environmental Ltd. It should be noted that, whilst every effort is made to meet the client's brief, no site investigation can ensure complete assessment or prediction of the natural environment.

Middlemarch Environmental Ltd accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

VALIDITY OF DATA

The findings of this study are valid for a period of two to four years, depending upon the nature of works proposed and the potential for these works to impact upon great crested newts. If works have not commenced within two years of this study, it may be necessary to undertake an updated survey to allow any changes in the status of great crested newts on site to be assessed, and to inform a review of the conclusions and recommendations made.

NON-TECHNICAL SUMMARY

ERI MTP Limited commissioned Middlemarch to undertake a survey for great crested newts at the site of a proposed development located to the south of Watling Street near Caldecote, in Nuneaton. This assessment is required to inform a planning application associated with the construction of commercial units and associated infrastructure.

Middlemarch has previously produced a Great Crested Newt Habitat Suitability Index Assessment and eDNA Survey Report (RT-MME-1254920-02 Rev B) for this site, and should be read in conjunction with this report. The previous report concluded that, following a suite of Habitat Suitability Assessment and eDNA surveys, further assessment of a number of ponds was required. These ponds are the subject of this report.

Great Crested Newt presence / absence and population assessment surveys were undertaken between 27th April and 17th June 2022. During this assessment great crested newts were recorded in three ponds (ponds P1 and P2, located on site, and off-site pond P4).

The population size class assessment identifies that the survey area therefore supports a medium population within ponds P1, P2 and P4. Breeding was also confirmed in P2 due to the presence of great crested newt eggs.

Destructive activities associated with the clearance of aquatic and terrestrial habitat will lead to the permanent loss of a confirmed breeding pond, the permanent alteration of a non-breeding pond, and has the potential to kill or injure individuals should any be present within aquatic or terrestrial habitat at the time of clearance. Following assessment, the following recommendation has therefore been made:

- R1** Due to the presence of a medium population class of great crested newts in Ponds P1, P2 and P4, prior to any works commencing on site a Natural England great crested newt development licence will be required. A great crested newt mitigation strategy will need to be developed to minimise potential impacts on great crested newts and / or their breeding and resting places and to ensure adequate mitigation is provided as part of the development proposals.

Natural England great crested newt development licences can only be applied for once outline planning permission (with reserved matters relating to wildlife or habitat issues resolved) or full planning permission has been granted, and where any conditions related to ecology have been discharged.

CONTENTS

1. INTRODUCTION	4
1.1 PROJECT BACKGROUND	4
1.2 DEVELOPMENT SITE DESCRIPTION AND CONTEXT	4
1.3 SURVEY AREA AND JUSTIFICATION	4
1.4 DOCUMENTATION PROVIDED	5
2. METHODOLOGY	6
2.1 DESK STUDY	6
2.2 HABITAT SUITABILITY INDEX AND CONNECTIVITY ASSESSMENT	6
2.3 GREAT CRESTED NEWT PRESENCE / ABSENCE SURVEY.....	6
2.4 POPULATION SIZE CLASS ASSESSMENT.....	7
3. DESK STUDY RESULTS	8
3.1 BIOLOGICAL RECORDS.....	8
3.2 PREVIOUS GREAT CRESTED NEWT SURVEYS	8
4. RESULTS	9
4.1 INTRODUCTION	9
4.2 SURVEY CONSTRAINTS	9
4.3 HABITAT SUITABILITY INDEX ASSESSMENT	9
4.4 GREAT CRESTED NEWT SURVEY RESULTS	10
4.5 POPULATION SIZE CLASS ASSESSMENT.....	12
5. DISCUSSION AND CONCLUSIONS.....	13
5.1 SUMMARY OF SITE PROPOSALS	13
5.2 HABITAT SUITABILITY INDEX ASSESSMENT	13
5.3 GREAT CRESTED NEWT SURVEY FINDINGS.....	13
5.4 CONCLUSIONS AND SUMMARY OF POTENTIAL IMPACTS.....	14
6. RECOMMENDATIONS.....	15
7. DRAWINGS.....	16
REFERENCES AND BIBLIOGRAPHY	19
APPENDIX 1	20

1. INTRODUCTION

1.1 PROJECT BACKGROUND

ERI MTP Limited commissioned Middlemarch to undertake a survey for great crested newts *Triturus cristatus* at the site of a proposed development located to the south of Watling Street near Caldecote, in Nuneaton. This assessment is required to inform a planning application associated with the construction of commercial units and associated infrastructure.

Middlemarch carried out a suite of ecological surveys at this site during 2021, including a Great Crested Newt Habitat Suitability Index Assessment and eDNA Survey. The findings of this survey are detailed in Report RT-MME-1254920-02 Rev B.

Great crested newts are a legally protected species and are capable of being a material consideration in the planning process. A summary of the legislation protecting great crested newts is included within Appendix 1. This section also provides some brief information on the ecology of great crested newts.

1.2 DEVELOPMENT SITE DESCRIPTION AND CONTEXT

The proposed development site is located to the south of Watling Street near Caldecote in Warwickshire. Its central grid reference is approximately SP 358 951. The surrounding landscape is predominantly agricultural although the town of Nuneaton lies nearby to the south and the village of Caldecote is situated to the west. The northern boundary of the site is formed by Watling Street (the A5) and the south-western boundary by Weddington Lane (the A444). The south-eastern boundary abuts other fields, but a dismantled railway line, now the Weddington Way, is situated nearby, joining the proposed development site in the north-eastern corner of the site.

The site is approximately 69 Ha in size and dominated by arable fields. Field margins comprise hedgerows and a stream flows from north to south through the centre of the site. The Elms Farm is also situated within the site. This comprises a residential dwelling and a complex of barns and associated gardens. Two farm ponds are also present on site.

1.3 SURVEY AREA AND JUSTIFICATION

Two ponds are present on site and reference to Ordnance Survey mapped data indicates the potential presence of up to twenty-one additional ponds within a 500 m radius of the site.

During the previous Great Crested Newt Habitat Suitability Index Assessment and eDNA Survey carried out by Middlemarch in 2021, nine of the aforementioned ponds were scoped out, primarily due either to the presence of landscape barriers or large intervening distances. One further pond was then scoped out following Habitat Suitability Index Assessment due to unsuitable conditions.

Three ponds could not be accessed, two had gone dry, and one pond, P18, was subject to full population assessment surveys associated with other works for this client. This pond was found to support a medium population of great crested newts (peak count 24). The results of the surveys remain in date and no additional surveys of this pond were considered necessary as part of this assessment.

An eDNA assessment was subsequently carried out at the remaining seven ponds which identified evidence of great crested newt within the two ponds on site (P1 and P2). The remaining ponds were negative for great crested newt and these ponds are therefore also scoped out of this assessment.

The Great Crested Newt Habitat Suitability Index Assessment and eDNA Survey Report (RT-MME-1254920-02 Rev B) should be referred to for further details. Following the suite of surveys, this report concluded that additional survey effort was needed for P1 and P2 (both of which were found to be positive for great crested newts during eDNA assessment), and P3, P4 and P23 (which could not be accessed at the time of survey).

These ponds are therefore the subject of this assessment.

The distances of all ponds within the survey area from the development boundary, are provided in Table 1.1, along with the justification for inclusion or exclusion from the survey effort. The locations of these ponds in relation to the proposed development site are shown on Middlemarch Drawing C157459-01-01 in Chapter 7.

Pond Reference	Distance from Development Boundary	Subject to Survey?	Justification
P1	On site	Yes	Pond is located on site and has previously tested positive for great crested newt DNA.
P2	On site	Yes	Pond is located on site and has previously tested positive for great crested newt DNA.
P3	Within 10 m of the southern boundary	Yes	Pond is set within an area of grassland located adjacent to the boundary.
P4	70 m south-east	Yes	Pond is set within an area of grassland with connectivity to the site.
P23	350 m north-east	No	Access constraints. See Section 4.2 for further details.

Table 1.1: Distance of Ponds from the Development Boundary

1.4 DOCUMENTATION PROVIDED

The conclusions and recommendations made in this report are based on information provided by the client regarding the scope of the project. Documentation made available by the client is listed in Table 1.2.

Document Name / Drawing Number	Author
Masterplan Option 10 B / 21092 SGP XX 00 DR A 111010 Rev M	SGP Architects + Masterplanners

Table 1.2: Documentation Provided by Client

2. METHODOLOGY

2.1 DESK STUDY

As part of the Preliminary Ecological Appraisal (Report RT-MME-154920-01 Rev B) an ecological data search was undertaken. The consultees for the desk study were Warwickshire Biological Records Centre (in August 2020) and Leicestershire and Rutland Environmental Record Centre (in October 2021).

Middlemarch Environmental Ltd then assimilated and reviewed the desk study data provided by these organisations. Relevant newt data are discussed in Chapter 3. In compliance with the terms and conditions relating to its commercial use, the full desk study data are not provided within this report.

2.2 HABITAT SUITABILITY INDEX AND CONNECTIVITY ASSESSMENT

All surveyed ponds were visually assessed for their suitability to support great crested newts by a suitably qualified ecologist. Ponds were assessed utilising the great crested newt Habitat Suitability Index (HSI) developed by Oldham *et al* in 2000 and revised by ARG UK in 2010. The HSI is a numerical index between 0 and 1, wherein a score of 1 represents optimal habitat for great crested newts. The HSI score is used to define the suitability of the pond on a categorical scale (Table 2.1). It should be noted, however, that the system is not precise enough to allow the conclusion that a pond with a high score will definitely support great crested newts whilst those with a low score will not.

HSI Score	Pond Suitability
< 0.5	Poor
0.5 – 0.59	Below average
0.6 – 0.69	Average
0.7 – 0.79	Good
> 0.8	Excellent

Table 2.1: Great Crested Newt HSI Scoring

The HSI is given by assigning a quantitative figure to each of 10 variables, including pond area, water quality and level of shading, which are all factors thought to affect great crested newts. The tenth root of the product of these variables is then calculated, giving a figure for habitat suitability. An assessment was also made of the habitat connectivity between ponds and the site, based on a review of habitat survey data (if available) and mapped sources.

2.3 GREAT CRESTED NEWT PRESENCE / ABSENCE SURVEY

Surveys for the presence of great crested newts require a minimum of four visits per year, with at least two visits between mid-April and mid-May to record peak numbers of great crested newts (English Nature, 2001).

Several survey methodologies are to be utilised during these visits. The standard survey methodologies include:

- Torchlight survey;
- Bottle trapping;
- Egg searching; and,
- Refuge searching.

The torchlight survey is a standard amphibian recording technique employing a high power torch to illuminate the ponds and allow the surveyor to record any great crested newts seen. This technique was undertaken during the survey visits, when males will be displaying and courting females.

Bottle traps were laid during the evening using the method described by Gent and Gibson (1998). The traps were then checked for newts before 10 am the following morning. Any newts found were recorded and then released back into the pond.

The egg search involved a direct assessment of emergent and submerged vegetation for great crested newt eggs. Egg surveys can only be undertaken during late spring and early summer (April to June).

Refuge searching involved looking underneath objects such as rocks, logs, moss and discarded debris in the vicinity of a pond. Adult and juvenile great crested newt can often be found underneath such objects, between March and October, especially if the objects are flat and retain moisture. Refuge searching is not a reliable method on its own and is only used as a supporting method to the other methods described.

2.4 POPULATION SIZE CLASS ASSESSMENT

In ponds where great crested newts were found a further two surveys were undertaken. This was in order to provide a population class estimate, as the determination of population class size in accordance with the 'Great Crested Newt Mitigation Guidelines' (English Nature, 2001) recommends that a minimum of 6 survey visits to each pond are made.

The peak population count for a single night is used to inform the calculation of population size class. Where ponds are within 250 m of each other the peak is summed for the same night and a size class assigned using the following criteria:

- **Small Population** – where peak count is up to 10;
- **Medium Population** – where peak count is 11 to 100; and,
- **Large Population** – where peak count exceeds 100.

The population size class assessment is used to determine the level of mitigation required, should great crested newts be found.

3. DESK STUDY RESULTS

3.1 BIOLOGICAL RECORDS

As part of the Preliminary Ecological Appraisal (RT-MME-154920-01) completed by Middlemarch, a desk study for records of protected species was completed. Twenty-nine records of great crested newts were identified within 1 km of the site during this study and are summarised in Table 3.1.

Date	Grid Reference	Proximity of Record	Additional Information
2017	SP367950	50 m east	-
2010	SP3656095170	100 m north-east	-
2013	SP3656095170	100 m north-east	3 individuals
2018-2019	SP3641294751	100 m south-east	Peak count of 23 individuals recorded.
Before 2015	SP36769500	110 m east	228 individuals translocated to this site.
2010	SP366952	150 m north-east	Breeding confirmed in two ponds and individuals were found in terrestrial habitats close to two other ponds. Maximum of 13 individuals in one survey visit.
2016	SP366952	150 m north-east	Individuals found in terrestrial habitat.
Before 2015	SP365953	190 m north-east	228 translocated from here.
2016	SP36699520	200 m north-east	1 female
2010	SP3671095210	210 m north-east	
2013	SP3671095210	210 m north-east	3 individuals.
2017	SP3671195209	210 m north-east	Maximum of 7 individuals.
2020	SP3671195209	210 m north-east	19 males, 2 females, and eggs.
2018	SP3550094687	220 m south-west	
2010	SP3493495683	330 m west	1 count of eggs.
2010	SP3493895680	330 m west	Breeding/eggs.
2019	SP3511694974	340 m south-west	-
2010	SP366955	410 m north-east	-
2010	SP366955	410 m north-east	-
2013	SP363942	440 m south	1 female and 5 males.
2013	SP363942	440 m south	1 male.
2013	SP363942	440 m south	4 males and 5 females.
2013	SP363942	440 m south	17 males and 6 females.
2013	SP363942	440 m south	11 males and 3 females.
2013	SP363942	440 m south	38 males and 4 females.
2013	SP3668095550	490 m north-east	1 individual.
2017	SP3668795549	490 m north-east	2 males and 2 females. Max count over 4 surveys
2013	SP365939	790 m south-east	14 individuals.
2016	SP3716394237	890 m south-east	1 individual

Table 3.1: Great Crested Newt Records Within 1 km of the Development Boundary

3.2 PREVIOUS GREAT CRESTED NEWT SURVEYS

This report should be read in conjunction with the Great Crested Newt Habitat Suitability Index Assessment and eDNA Survey (Report RT-MME-1254920-02 Rev B) produced by Middlemarch in 2021.

In 2021, seven of the ponds within 500 m of the proposed development site were subject to surveys for great crested newt in association with other proposed works for this client. As part of the assessment, medium population class size of great crested newts.

Reference to the Nuneaton and Bedworth Borough Council's publicly accessible planning portal identified that P3 and P4 had been surveyed historically in association with residential development to the south (planning reference 032336). The surveys were undertaken by FPCR in 2013 and found that P4 supported a medium population class size of great crested newts (peak count 42). No great crested newts were recorded in P3.

4. RESULTS

4.1 INTRODUCTION

The surveys were undertaken between 27th April and 17th June 2022 by:

- Helen Griffin ACIEEM (Senior Ecological Consultant, Licensed Ecologist under CL08);
- James Calow MCIEEM (Senior Biodiversity Consultant, Licensed Ecologist under CL08);
- Alex Pelot (Field Assistant);
- Alicia Tredell (Field Assistant);
- Jessica Jehu (Field Assistant); and,
- Selina Kotan-Mehmet (Field Assistant).

Any constraints encountered during the surveys are detailed in Section 4.2.

At the time of the first presence / absence survey visit, each pond was subject to a habitat assessment to determine its suitability to support great crested newts. The findings of this assessment, including the calculated HSI score for each pond surveyed, are provided in Section 4.3.

The results of the great crested newt surveys are detailed in Section 4.4. Where additional survey visits were undertaken to inform a population size class assessment, the results of this assessment are provided in Section 4.5.

4.2 SURVEY CONSTRAINTS

Pond P23 could not be surveyed due to access constraints. This pond is situated within arable farmland to the north-east. It was previously noted within Report RT-MME-1254920-02 Rev B that, although the pond is situated to the north of the A5, the disused railway corridor could provide some, albeit suboptimal, connectivity between the site and this pond via an underpass. The underpass would provide little refuge for commuting individuals; therefore, given the intervening distances and the presence of suitable habitat to the north of the A5, it is not considered likely that amphibians would regularly commute onto site from this pond. The lack of access to this pond is not considered a significant constraint to this assessment.

Bottle traps were not used as part of the survey method for ponds P1 or P4. Pond P1 was too shallow to allow appropriate submersion of the bottles, while during historical surveys of P4 (carried out by Middlemarch for purposes unrelated to this scheme), the bottle traps were subject to vandalism. As such, terrestrial refuge searches of natural debris were completed at both ponds during the surveys to ensure that three survey methods were undertaken. During the third and fourth surveys, the turbidity of pond P4 was such that the water was difficult to torch due to the presence of sediment and pollen within the water column. Artificial refugia, in the form of carpet tiles, were put out within vegetation around this pond which were checked during both evening and morning visits to further support the survey methods.

During the first visit the forecasted overnight temperature unexpectedly dropped below 5°C. As a precaution, for animal welfare reasons, no bottle traps were set overnight and terrestrial searches were completed to ensure three survey methods were undertaken. Great crested newts were identified during the torch survey and therefore the lower overnight temperatures were not considered to be a significant constraint.

Additionally, during the initial assessment pond P3 was found to have almost completely dried out. The remaining water contained no vegetation and was highly turbid. The surrounding area was muddy and heavily disturbed, with evidence of human activity including seating area of chairs. During the following survey the pond was found to have gone completely dry and no further surveys were carried out.

4.3 HABITAT SUITABILITY INDEX ASSESSMENT

Table 4.1 provides the results of the Habitat Suitability Index Assessment. Pond locations are shown on Middlemarch Drawing C157459-01-01, which can be found within Chapter 7 of this report.

The HSI score for each of the ponds assessed is detailed in Table 4.1.

Pond Ref.	HSI Category										HSI Score
	SI 1	SI 2	SI 3	SI 4	SI 5	SI 6	SI 7	SI 8	SI 9	SI 10	
P1	1.0	0.2	0.1	0.33	0.2	1.0	1.0	1.0	0.33	0.3	0.41 (Poor)
P2	1.0	1.0	0.9	0.67	0.8	0.67	1.0	1.0	0.33	0.6	0.76 (Good)
P3	1.0	0.05	0.1	0.33	0.2	1.0	1.0	0.9	1.0	0.3	0.39 (Poor)
P4	1.0	0.4	0.5	0.67	1.0	0.67	1.0	0.9	1.0	0.4	0.71 (Good)
Key: SI 1 – Location SI 2 – Pond Area SI 3 – Pond Drying SI 4 – Water Quality SI 5 – Shade SI 6 – Waterfowl SI 7 – Fish SI 8 – Ponds Within 1km SI 9 – Terrestrial Habitat SI 10 – Macrophytes											

Table 4.1: Habitat Suitability Index of Ponds Within 250m of Study Area

4.4 GREAT CRESTED NEWT SURVEY RESULTS

Table 4.2 provides a summary of the survey dates and weather conditions.

Survey Visit Number	Date	Time	Parameter			
			Temperature °C	Cloud %	Precipitation	Wind (Beaufort Scale)
1	27/04/2022	pm	7	20	0	1
	28/04/2022	am	Bottle traps not set due to overnight temperatures below 5°C			
2	11/05/2022	pm	11	<10	0	0-1
	12/05/2022	am	14	100	0	2
3	17/05/2022	pm	16	90	Light showers	2
	18/05/2022	am	16	<10	0	1
4	31/05/2022	pm	10	30	0	1
	01/06/2022	am	8	100	0	1
5	08/06/2022	pm	13	40	0	1-2
	09/06/2022	am	10	<10	0	0-1
6	16/06/2022	pm	18	0	0	0-1
	17/06/2022	am	16	0	0	0

Table 4.2: Weather Conditions During Great Crested Newt Surveys

Table 4.3 details the results of the great crested newt surveys.

During the great crested newt surveys carried out between 27th April and 17th June 2022, the presence of great crested newts was confirmed in Ponds P1, P2 and P4. In order to inform a population size class assessment a total of 6 surveys were undertaken to these ponds. The results of this assessment are detailed in Section 4.4.

Pond Reference	Parameters		Great Crested Newts							Common Amphibians					
	Vegetation Cover (0-5)	Turbidity (0-5)	Torch			Bottle Trapping / Terrestrial Searches			Eggs Present? (Y/N)	Torch			Bottle Trapping / Terrestrial Searches		
			M	F	Juv	M	F	Juv		M	F	Juv	M	F	Juv
Survey Visit 1 – 27/04/2022															
P1	1	1	2	1	0	0	0	0	N	2SN	3SN	0	0	0	0
P2	3	0	9	2	0	0	0	0	Y	2SN	0	0	0	0	0
P3	1	3	0	0	0	0	0	0	N	0	0	0	0	0	0
P4	0	3	0	0	0	0	0	0	N	0	0	0	0	0	0
Survey Visit 2 – 11-05-2022 / 12-05-2022															
P1	1	2	0	1	0	0	0	0	N	0	4SN	0	0	0	0
P2	3	2	2	2	0	0	0	1 TR	-	0	1SN	0	0	0	0
P4	1	3	0	0	0	0	0	0	N	0	0	0	0	0	0
Survey Visit 3 – 17-05-2022 / 18-05-2022															
P1	1	1	0	0	0	0	0	0	N	0	0	0	0	0	0
P2	3	1	12	4	0	4	6	1	-	3SN	4SN	0	0	0	0
P4	1	3	0	0	0	0	0	0	N	1SN	0	0	0	0	0
Survey Visit 4 – 31-05-2022 / 01/06/2022															
P2	3	3	0	0	0	0	0	0	N	0	0	0	0	0	0
P4	1	3-4	0	0	0	0	0	0	N	0	0	0	0	0	0
Survey Visit 5 – 08-06-2022 / 09-06-2022															
P2	3	2	1	1	0	0	0	0	N	1SN	2SN	0	0	0	0
P4	1	3-4	0	0	0	0	0	0	N	0	0	0	0	0	0
Survey Visit 6 – 16-06-2022 / 17-06-2022															
P2	3	1	0	1	0	0	1	0	N	2SN	2SN	0	0	0	0
P4	1	2	2	0	0	0	0	0	N	0	0	0	0	0	0
Key: TR – Terrestrial refuge search M – Male F – Female Juv – Juvenile/sub-adult GCN – Great crested newt <i>Triturus cristatus</i> SN – Smooth newt <i>Lissotriton vulgaris</i>															
Notes: ‘Vegetation Cover’: 0 = No vegetation obscuring survey. 5 = Water completed obscured by vegetation ‘Turbidity’: 0 = Completely clear. 5 = Very turbid.															

Table 4.3: Great Crested Newt Survey Results

4.5 POPULATION SIZE CLASS ASSESSMENT

As detailed in Section 2.4, the population size class assessment is determined by taking the peak count for all ponds within 250 m of one another during a single survey visit by a single technique (English Nature, 2001). Where multiple ponds are recorded within a 250 m radius of each other these are generally considered to hold a single great crested newt population and the peak count for each survey visit for these ponds is summed to generate the peak count for the population.

Table 4.4 details the results of the population size class assessment for the site.

Population Reference	Pond Reference	Peak Great Crested Newt Count	Population Class
Population A	Pond P1, P2 and P4	16 (17-05-2022)	Medium
Population B	P18	24 (27/04/2021)	Medium

Table 4.4: Great Crested Newt Population Size Class Assessment for Surveyed Ponds

5. DISCUSSION AND CONCLUSIONS

5.1 SUMMARY OF SITE PROPOSALS

The proposal is for the construction of seven commercial units with associated access and parking. The entrance to the site from the A5 will utilise the existing site entrance on the roundabout to the existing Horiba MIRA site to the north. The exit onto the Weddington Lane will require the creation of a new site entrance and junction. The stream that runs centrally through the site will be retained in situ. A new crossing will be created over this to allow vehicular access to the western half of the site. Two internal hedgerows will be lost, but the external site boundary features will be preserved intact except the new entrance proposed onto Weddington Lane. Pedestrian and cycle access is proposed onto the site via the Weddington Walk on the disused railway line at the northeast corner of the site. A band of soft landscaping with planting and pools is proposed along this pedestrian walkway, around the eastern, western and southern boundaries of the site, and along the west of the stream. Whilst some of these pools are proposed for site drainage, it is understood that some are proposed for ornamental and wildlife purposes. No construction work is currently proposed on the westernmost field included in the survey area for this study.

The proposals will lead to the loss of Pond P2. Pond P1 will be retained; however, is proposed to be set within grassland at the entrance of the site and it is therefore assumed that some level of clearance and enhancement works will be required.

5.2 HABITAT SUITABILITY INDEX ASSESSMENT

The results of the HSI index assessment for all ponds surveyed are summarised in Table 5.1.

HSI Score	Pond Suitability for Great Crested Newt	Pond Reference
< 0.5	Poor	P1, P3
0.5 – 0.59	Below average	-
0.6 – 0.69	Average	-
0.7 – 0.79	Good	P2, P4
> 0.8	Excellent	-

Table 5.1: Pond Habitat Suitability Index Results

P1 and P3 were identified as being of 'poor' suitability to support great crested newts. These ponds were small, heavily shaded and ephemeral.

P2 and P4 were assessed to be of 'good' suitability to support great crested newt. These ponds had an absence of significant populations of fish and / or fowl and are considered to hold water on a more permanent basis.

5.3 GREAT CRESTED NEWT SURVEY FINDINGS

Great crested newts were recorded in three ponds within the study area during the survey visits. The population size class assessment identifies that the survey area supports a medium population within ponds P1, P2 and P4. Breeding was confirmed in P2 due to the presence of great crested newt eggs.

Previous assessment of ponds to the north of the A5 have also identified the presence of a medium population of great crested newts within pond P18.

The ponds supporting great crested newts are shown on Drawing C157459-01-01 in Chapter 7. This drawing shows radii of 50 m, 250 m and 500 m around the ponds, as these are the distances identified by Natural England as providing core terrestrial habitat (0-50 m), intermediate terrestrial habitat (50-250 m) and distant terrestrial habitat (250-500 m).

Populations of smooth newt *Lissotriton vulgaris* were also identified in ponds P1, P2 and P4 with peak counts of five, seven and one recorded, respectively.

5.4 CONCLUSIONS AND SUMMARY OF POTENTIAL IMPACTS

Reference to the Nuneaton and Bedworth Borough Council planning portal identified that P4 historically supported a medium population of great crested newts; however, during the 2022 assessment, only two individuals were observed. It is not known why the noted population is significantly smaller than previously recorded; however, even when taking into account the peak count of 42 individuals, the population would still fall within the medium size class.

Previous surveys which were undertaken at ponds located to the north of the A5 identified the presence of a medium population of great crested newts within pond P18. As with the other ponds located to the north of the A5, it is acknowledged that connectivity below the A5 exists in the form of an underpass; however, this is not considered optimal commuting habitat. It is not deemed likely that the underpass would be used as part of a regularly used commuting route and the A5 itself is a notable barrier to amphibian migration. Therefore, it is considered unlikely that the population of great crested newts present to the north would be impacted as a result of the proposed development.

Pre- and Mid-Development Impacts

The proposed development will result in the permanent loss of pond P2 and temporary loss / permanent alterations to pond P1. The existing terrestrial habitat surrounding the ponds will be lost to facilitate the development; however, the existing boundaries of the site will be retained, as will ponds P3 and P4 with associated surrounding grassland (located off site).

Arable crop land is generally not considered optimal terrestrial habitat for amphibians; however, in this case amphibians are using this habitat as refuge to migrate between ponds. Other key areas of terrestrial habitat include scrub, grassland and other suitable features, such as within tree roots, brash and large piles of deposited farm waste. The proposed development will lead to the permanent loss of these habitats as well as fragmentation of existing commuting routes.

Long-Term Impacts

The loss of the existing habitats on site is unavoidable in order to deliver the scheme as proposed. This loss cannot be mitigated; however, compensation has been designed into the scheme during development of the landscaping opportunities for the proposed site layout. The Landscape Masterplan provided by Terraforma Landscape Architects (ref. 21092 SGP XX 00 DR A 010100 rev. B, by SGP Architects dated 05.11.2021) shows the habitats in question which include:

- Provision of four wildlife ponds to be created separately to the drainage system;
- Creation of an exclusive biodiversity-focussed area to contain new woodland planting, meadow grassland planting and marginal marshy areas associated with the new waterbodies;
- Enhancing the existing ditch feature with new woodland planting; and
- Enhancing the existing boundaries with new woodland planting.

Although existing aquatic habitats will be lost, many waterbodies are proposed as part of the scheme, including four which will be created specifically for great crested newts. Additionally, the proposed habitats on site will provide a range of suitable terrestrial opportunities for foraging and commuting.

Considering the above, and if delivered as currently described, the proposed development could be of long-term benefit to the existing population of great crested newts given the provision of a greater number of higher quality ponds and more varied terrestrial opportunities.

However, destructive activities associated with the clearance of aquatic and terrestrial habitat will lead to the permanent loss of a confirmed breeding pond, the permanent alteration of a non-breeding pond, and has the potential to kill or injure individuals should any be present within aquatic or terrestrial habitat at the time of clearance. A Natural England great crested newt development licence is therefore required prior to any works commencing on site. A recommendation regarding this is made in Chapter 6.

6. RECOMMENDATIONS

All recommendations provided in this section are based on Middlemarch's current understanding of the site proposals, correct at the time the report was compiled. Should the proposals alter, the conclusions and recommendations made in the report should be reviewed to ensure that they remain appropriate.

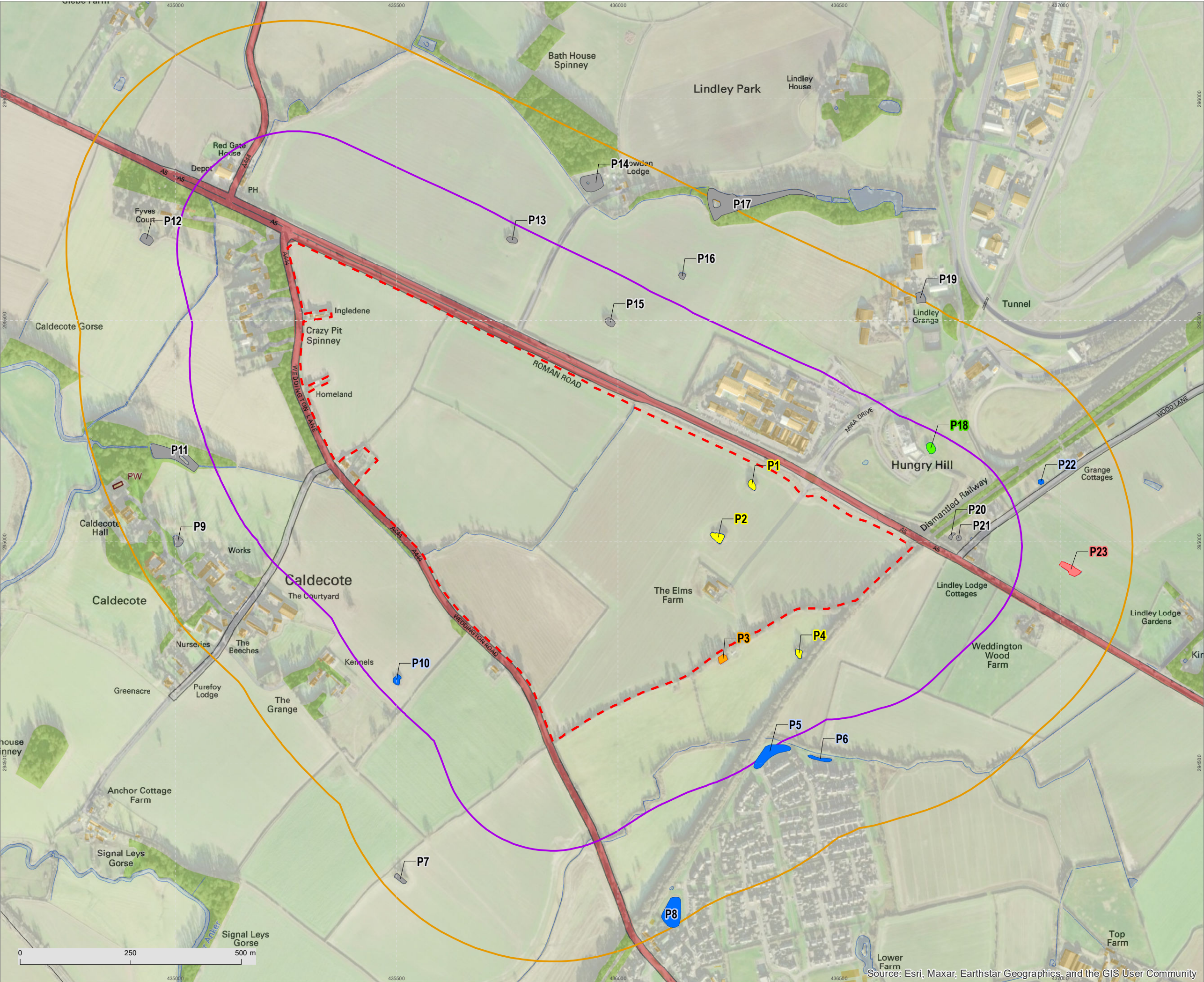
- R1** Due to the presence of a medium population class of great crested newts in Ponds P1, P2 and P4, prior to any works commencing on site a Natural England great crested newt development licence will be required. A great crested newt mitigation strategy will need to be developed to minimise potential impacts on great crested newts and / or their breeding and resting places and to ensure adequate mitigation is provided as part of the development proposals.

Natural England great crested newt development licences can only be applied for once outline planning permission (with reserved matters relating to wildlife or habitat issues resolved) or full planning permission has been granted, and where any conditions related to ecology have been discharged.

7. DRAWINGS

Drawing C157459-01-01 – Great Crested Newt Survey Results

Drawing C157459-01-02 – Great Crested Newt Distribution Plan



C157459-01-01

Legend

Site boundary

250m from site boundary

500m from site boundary

Pond supporting a medium population of great crested newt in 2021

Pond subject to full survey - Great crested newt positive

Pond subject to eDNA survey - Great crested newt negative

Pond not surveyed - Dry at the time of survey

Pond not surveyed - no access

Pond not surveyed - scoped out

Project

MIRA SMS, Watling Street

Drawing

Great Crested Newt Survey Results

Client

ERI MTP Limited

Drawing Number

C157459-01-01

Revision

00

Scale @ A3

1:8,000

Date

August 2022

Approved By

HL

Drawn By

BD

MIDDLEMARCH

Triumph House, Birmingham Road, Allesley, Coventry CV5 9AZ
T:01676 525880
E:admin@middlemarch-environmental.com

This map is reproduced from the Ordnance Survey material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationary Office. © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.

Licence Number: 100040519



C157459-01-02

Legend

Site boundary

Pond supporting a medium population of great crested newt in 2021

Pond subject to full survey - Great crested newt positive

Pond subject to eDNA survey - Great crested newt negative

50 m radius from great crested newt pond

250 m radius from great crested newt pond

500m radius from great crested newt pond

Project

MIRA SMS, Watling Street

Drawing

Great Crested Newt Distribution Plan

Client

ERI MTP Limited

Drawing Number

C157459-01-02

Revision

00

Scale @ A3

1:8,000

Date

August 2022

Approved By

HL

Drawn By

BD

MIDDLEMARCH

Triumph House, Birmingham Road, Allesley, Coventry CV5 9AZ
T:01676 525880
E:admin@middlemarch-environmental.com

This map is reproduced from the Ordnance Survey material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationary Office. © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution of civil proceedings.
Licence Number: 100040519

REFERENCES AND BIBLIOGRAPHY

ARG UK. (2010). *ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index*. Amphibian and Reptile Groups of the United Kingdom.

English Nature. (2001). *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough.

Gent, A. and Gibson, S. (1998). *Herpetofauna Workers Manual*, Joint Nature Conservation Committee, Peterborough.

Joint Nature Conservation Committee (2012). *UK Post-2010 Biodiversity Framework*. Available: http://jncc.defra.gov.uk/pdf/UK_Post2010_Bio-Fwork.pdf

Langton, T., Beckett, C. and Foster, J. (2001). *Great Crested Newt: Conservation Handbook*. Froglife, Suffolk.

Oldham R. S., Keeble, J., Swan, M. J. S. and Jeffcote, M. (2000). 'Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*)'. *Herpetological Journal* **10** (4), 143-155.

APPENDIX 1

LEGISLATION

Great crested newts (GCN) and the places they use for shelter or protection receive legal protection under the Conservation of Habitats and Species Regulations 2017, (Habitats Regulations 2017) and the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 (Habitats Regulations 2019). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that GCN, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Regulation 41 of the Habitats Regulations 2017, states that a person commits an offence if they:

- deliberately capture, injure or kill a GCN;
- deliberately disturb GCN;
- deliberately take or destroy eggs of a GCN; or
- damage or destroy a GCN breeding site or resting place.

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

It is an offence under the Habitats Regulations 2017 for any person to have in his possession or control, to transport, to sell or exchange or to offer for sale, any live or dead GCN, part of a GCN or anything derived from GCN, which has been unlawfully taken from the wild. This legislation applies to all life stages of GCN.

Changes have been made to parts of the Habitats Regulations 2017 so that they operate effectively from 1st January 2021. The changes are made by the Habitats Regulations 2019, which transfer functions from the European Commission to the appropriate authorities in England and Wales.

All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant.

The obligations of a competent authority in the 2017 Regulations for the protection of species do not change. A competent authority is a public body, statutory undertaker, minister or department of government, or anyone holding public office.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:

- Section 9(1) of the WCA makes it an offence to *intentionally* kill, injure or take any protected species.
- Section 9(4)(a) of the WCA makes it an offence to *intentionally or recklessly** damage or destroy, or *obstruct access to*, any structure or place which a protected species uses for shelter or protection.
- Section 9(4)(b) of the WCA makes it an offence to *intentionally or recklessly** disturb any protected species *while it is occupying a structure or place which it uses for shelter or protection*.

*Reckless offences were added by the Countryside and Rights of Way (CROW) Act 2000.

The reader should refer to the original legislation for the definitive interpretation.

GCN are listed a Species of Principal Importance for Nature Conservation in England which means they are a material consideration in the planning process. The list of species is derived from Section 41 list of the Natural Environmental and Rural Communities (NERC) Act 2006.

ECOLOGY

The great crested newt is the largest of the three newt species in the UK. Like all UK amphibians, they breed within ponds but great crested newts spend the majority of the year on land. Great crested newts prefer to breed in medium to large ponds without fish or significant numbers of waterfowl. Ponds which lack shade on the southern margins appeared to be favoured. Newts enter the ponds to breed in the spring, immediately after they come out of their winter dormancy. The females lay eggs individually on the leaves of aquatic vegetation, and these generally hatch within four weeks, although the exact timing is dependent on environmental conditions. The larvae then stay in the water until the metamorphosing into adult newts (when

they lose their external gills) between August and October and are now able to leave the water. Great crested newts can live up to 14 years in the wild and spend most of their lives out of the ponds, foraging at night in areas of undisturbed habitat, favouring rough grassland, scrub and woodland areas. Newts may travel up to 1 km from a breeding pond, but most tend to travel no more than 250 m if the ponds are close to suitable terrestrial habitat. Great crested newts are predators from birth, taking a variety of live prey including aquatic invertebrates, frog tadpoles, slugs, earthworms, spiders and other land invertebrates. Great crested newt hibernate during the winter months in underground crevices, such as gaps between tree roots, or under piles of logs, rubble etc.

Great crested newt populations have declined significantly in Britain, and continental Europe, since the 1940s as a result of habitat loss.