31 Barkham Ride, Finchampstead, Wokingham, RG40 4EX

Great Crested Newt eDNA Sampling

June 2023

Document Control Sheet

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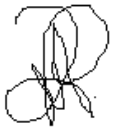
Date: **19/06/2023**

	Name	Position	Signature	Date
Prepared by:	Lisha Price	Ecologist		19/06/2023
Checked By	Nick Kirke	Ecologist	NK	19/06/2023

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1 Introduction

1.1 Background

Plan Ecology Ltd were commissioned to provide Habitatit Suitability Index Assessments and eDNA surveys (if required) on ponds within 250m of 31 Barkham Ride, Finchampstead, Wokingham, RG40 4EX. Grid Reference: SU789658 (referred to from here on as 'the Site').

This report sets out the methodology, results and recommendations following these surveys.

1.2 Site Location

The site is located on the edge of the village of Finchampstead in the south of Berkshire.

2 Methodology

Field Team

2.1.1 The surveys were carried out by Lisha Price and an experienced assistant from Plan Ecology Ltd. Lisha is an experienced ecologist with 18 years of experience in ecological consultancy holding a great crested newt class licence (2015-18965).

Habitat Suitability Index (HSI) Assessment

2.1.2 Ponds have been mapped in Appendix A, HSI Scores and photographs provided in Appendix B.

2.1.3 These ponds were assessed for their potential to support great crested newts by a suitably experienced ecologist. The visual assessment followed the Habitat Suitability Index methods (Oldham et al. 2000) to give an indication of the likely suitability of the ponds for great crested newts.

eDNA testing of Suitable Ponds

2.1.4 eDNA sampling is a survey technique where water samples are analysed. The sampling determines whether there is any environmental DNA from aquatic animals present in a particular pond. DNA fragments which aquatic animals leave in ponds comes in the form of skin, mucous or faeces. If DNA fragments are detected, then a great crested newt (*Triturus cristatus*) has been in contact with the pond.

2.1.5 eDNA sampling can be carried out between the 15th of April and the 30th of June. Water samples must be taken by a GCN licence holder with suitable training and experience and knowledge of correct protocol.

2.1.6 Approximately 20 water samples are taken from sample sites evenly spaced around the pond using eDNA test kits. The test kits include a sterilised pipette, mixing bag, sampler, pairs of gloves and tubes with preserving fluid. Following the procedure set by Natural England, the samples are then mixed to create one water sample.

2.1.7 The kits are sent to the lab by courier, where they are tested.

2.1.8 Samples were collected on the 6th of June 2023 by licenced ecologist Lisha Price from pond B which had an HSI score of good.

2.1.9 eDNA results provided in Appendix C.

3 Results and Interpretation

3.1 Overview

3.1.1 This section sets out the findings of the desk study and survey work and determines which of these have significance with reference to ecological planning policy and legislation and, therefore, need to be considered further in terms of mitigation and/or compensation in subsequent sections of this report. Summaries of the relevant legislation and planning policies are included to provide context to the reasoning.

3.2 Legislation

3.2.1 Great crested newts receive full protection under the Wildlife & Countryside Act 1981 (as amended) and under the Conservation (Natural Habitats &c.) Regulations 2010 ('Habitat Regulations') (as amended). These make it illegal to

- Intentionally or recklessly kill, injure or take a great crested newt;

  Possess or control any live or dead specimen or anything derived from a great crested newt;

  Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a great crested newt;

- Intentionally or recklessly disturb great crested newts; in particular any disturbance which is likely to impair their ability to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating animals, to hibernate or migrate.

3.3 HSI Results

Pond A and C came back as Below Average and Average respectively. No further surveys are recommended on these ponds.

Pond B resulted in Good and an eDNA survey was carried out.

3.4 eDNA Results

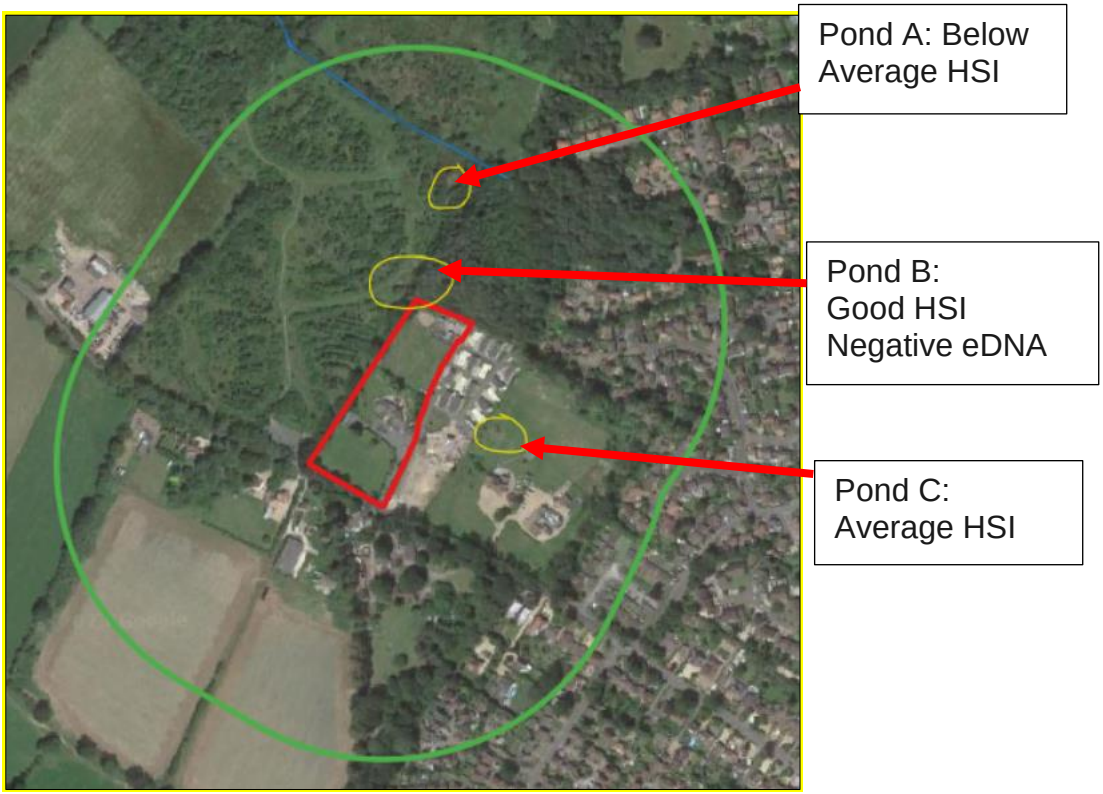
3.4.1 The eDNA results came back as negative for Pond B. eDNA results are shown in Appendix C.

4 Further Survey Recommendations

4.1.1 No ponds within 250m of the Site were found to provide good suitability for Great Crested Newts. Further to the Preliminary Ecological Assessment the habitat within the Site is of low potential for great crested newts.

4.1.2 No further surveys for great crested newts are recommended, however, if great crested newts are found to be present at any stage, a licence may need to be applied for before works go ahead and a mitigation strategy presented.

Appendix A Location of Ponds within 250m



Appendix B HSI of Waterbodies within 250m

WB	HSI information	Grid reference	Photograph
A	Geographic location – A Pond area – 55 Permanence – Sometimes Water quality – Poor Shade – 50 Waterfowl – Absent Fish – Absent Pond count – 11 Terrestrial habitat – Good Macrophytes – 0 HSI score – 0.59 – Below average	SU 79072 65821	
B	Geographic location – A Pond area – 77 Permanence – Rarely Water quality – Poor Shade – 20 Waterfowl – Absent Fish – Absent Pond count – 11 Terrestrial habitat – Good Macrophytes – 0 HSI score – 0.66 – Good 0.7	SU 78982 65970	

C	Geographic location – A Pond area – 25 m2 Permanence – Never Water quality – Poor Shade – 0 Waterfowl – Minor Fish – Possible Pond count – 11 Terrestrial habitat – Poor Macrophytes – 20 HSI score – 0.62 – Average	SU 79021 65964	

Appendix C eDNA Results

SureScreen Scientifics

Folio No: E17828
Report No: 1
Purchase Order: 31 Barkham Ride
Client: PLAN ECOLOGY
Contact: Lisha Price

TECHNICAL REPORT

ANALYSIS OF ENVIRONMENTAL DNA IN POND WATER FOR THE DETECTION OF GREAT CRESTED NEWTS (TRITURUS CRISTATUS)

SUMMARY

When great crested newts (GCN), *Triturus cristatus*, inhabit a pond, they continuously release small amounts of their DNA into the environment. By collecting and analysing water samples, we can detect these small traces of environmental DNA (eDNA) to confirm GCN habitation or establish GCN absence.

RESULTS

Date sample received at Laboratory: 06/06/2023
Date Reported: 08/06/2023
Matters Affecting Results: None

Lab Sample No.	Site Name	O/S Reference	SIC	DC	IC	Result	Positive Replicates
4773	31 Barkham Ride	-	Pass	Pass	Pass	Negative	0

If you have any questions regarding results, please contact us: ForensicEcology@surescreen.com

Reported by: Chelsea Warner **Approved by:** Jackson Young