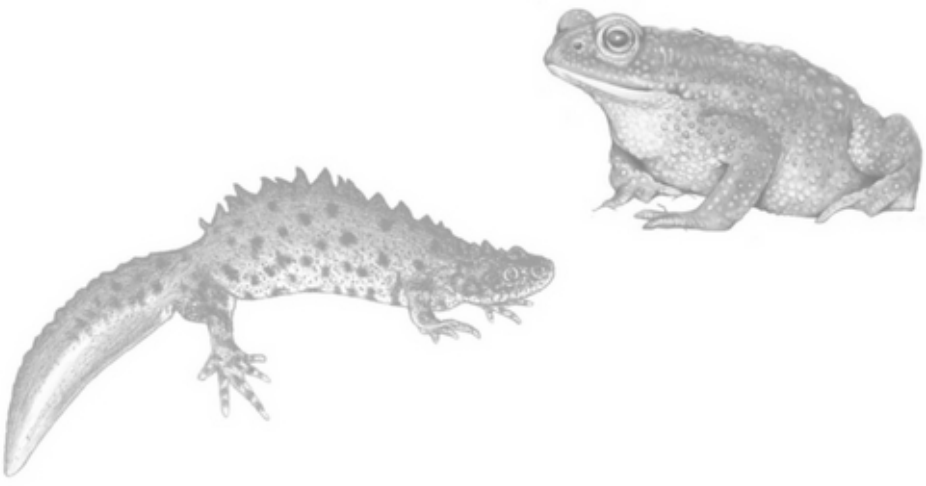
AMPHIBIAN
SURVEY & REPORT
at
Longley Farm
Longley Lane
Huddersfield
HD9 2JD

Client:
J & E Dickinson

Client Address:
Longley Farm
Longley Lane
Huddersfield
HD9 2JD

JCA Ref:
22888b/GB

Date of Report:
07/06/2025



JCA Limited
Arboricultural & Ecological Consultants

Quality Assurance

Version	Desktop Survey Completed:		Site Surveyed:		Report Completed:		Checked:	
	Date	Name	Date	Name	Date	Name	Date	Name
001	N/A	N/A	02/06/25	Grace Bramley Adam West Alex Donovan	26/06/25	Grace Bramley	26/06/25 01/07/25	Alex Donovan James Foster

This report has been prepared and provided in accordance with the *British Standard 42020: Biodiversity – Code of practice for planning and development 2018* and the *CIEEM's Code of Professional Conduct.*

This Assessment is only valid for the named client and the project described. JCA Limited. accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purpose for which it was commissioned. If the scope of works or timing of the project are altered the advice given in this report may not be valid. Information and data provided within this report is considered accurate at the time of writing.

Provided no significant changes are made to the proposals or on the site (e.g. significant changes to management practices or habitats present) subsequent to the report's issue; this report can be considered valid for 18 months from the date of issue.

As part of membership to our professional body (CIEEM) and EPS licence reporting we are required to provide our biological results to applicable biological record centres. As such, it is our intention to supply biological data collected as part of this assessment, where recorded, to the relevant BRC. If the project is sensitive in nature, we may be able to delay submitting the records until the project enters the public domain, however, this must be discussed with JCA Limited and agreed in writing.

Summary

JCA Limited has been commissioned by **J & E Dickinson** to undertake an environmental DNA (eDNA) survey to determine the presence or likely absence of great crested newt (GCN) on a site located at **Longley Farm, Longley Lane, Huddersfield, HD9 2JD**. The site is located at Ordnance Survey (OS) National Grid Reference **SE 14539 06146** with nearby postcode **HD9 2JD**.

During the survey no newt species were observed.

The Habit Suitability Index (HSI) assessment resulted in a score of 0.63, indicating average suitability to support breeding great crested newts *Triturus cristatus*.

The eDNA analysis by SureScreen Scientifics had a negative result for GCN eDNA, indicating an absence GCNs.

Contents

1. Introduction and Terms of Reference

1.1 Purpose of the Report

1.1.1 A report is required at **Longley Farm, Longley Lane, Huddersfield,** (hereafter referred to as 'the site') to assess the site's potential for supporting great crested newts (GCN) *Triturus cristatus* or other amphibians, in the form of terrestrial habitat and/or aquatic/breeding habitat. The aim of this report is to investigate the potential impact that the proposed development may have on the local/national great crested newt population.

1.2 Terms of Reference

1.2.1 JCA Ltd were instructed by **J & E Dickinson** to visit the site and prepare the findings in a report.

1.3 Scope of the Report

1.3.1 All amphibian surveys and reports are compiled in line with Natural England's (NE) survey guidelines in accordance with the Joint Nature Conservation Committee's (JNCC) Herpetofauna Workers Manual.

1.4 Details of Proposed Development

1.4.1 The scheme is the construction of a new production facility.

1.5 Site Description

1.5.1 The site is located at Ordnance Survey (OS) National Grid Reference **SE 14539 06146**, with nearby postcode **HD9 2JD**.

1.5.2 The site contains a single pond, surrounded by grassland and shrub habitats with buildings to the north and west. The wider area is primarily agricultural fields, with pockets of woodlands.

1.6 Legislative Context

1.6.1 The great crested newt (GCN) is afforded protection under **Schedule 2 (European Protected Species of Animals)** of the **Conservation of Habitats and Species Regulations (CHSR) 2017** (retained in UK law by **CHSR (Amendment) (EU Exit) 2019**), with additional protection offered under **Schedule 5** of the **Wildlife and Countryside (WCA) Act 1981 (as amended)**. This makes it an offence to:

- deliberately, intentionally or recklessly kill, injure or take a great crested newt.

- deliberately, intentionally or recklessly take or destroy 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.
- deliberately, intentionally or recklessly disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.

1.6.2 If it is discovered that any proposed development may impact upon this species (thus leading to an offence being committed) a mitigation plan must be devised and a GCN Mitigation Licence applied for from the relevant government department (i.e. Natural England in England). Gaining a licence will depend on many variables.

1.6.3 Alternatively, GCN District Level Licencing (DLL) schemes operate across much of England. Under a DLL scheme, off-site compensation to benefit wider GCN populations is paid for, instead of carrying out detailed surveys and applying for a mitigation licence, meaning there would be no need to carry out GCN surveys or to plan and carry out mitigation work to move any GCNs found on site. Such schemes operate across Yorkshire, excluding Calderdale, City of bradford, and Kirklees.

2. Methodology

2.1 HSI Methodology

2.1.1 The site was surveyed by Adam West (JCA Principal Ecologist, who holds an NE Level 1 great crested newt survey class licence (registration number **2019-40324-CLS-CLS**)), Grace Bramley (JCA Graduate Ecologist) and Alex Donovan (JCA Assistant Ecologist) on the 02/06/25, for terrestrial and aquatic GCN potential.

2.1.2 The Habitat Suitability Index (HSI) is a system that was developed by Oldham *et al.* (2000) for assessing a water body's potential to support Great Crested Newts (GCN). The HSI is a numerical system that scores a pond between 0 and 1 (**Table 1**) depending on 10 quantifiable factors: geographical location, pond area, permanence, water quality, shade, waterfowl, fish, pond count, terrestrial habitat and macrophytes.

Table 1: The Habitat Suitability Index (HSI).

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

2.1.3 Limitations: The HSI for great crested newts is a measure of habitat suitability and therefore does not substitute great crested newt surveys. The general trend is ponds with high HSI scores are more likely to support great crested newts than those with low scores. However, the system is not accurate enough to conclude that ponds with a high score will support great crested newts, or that any pond with a low score will not support great crested newts.

2.1.4 There is also a positive correlation between HSI scores, and the numbers of great crested newts observed in ponds. As a general rule of thumb, high HSI scores are likely to be linked with greater numbers of great crested newts. However, this general relationship is not adequate to predict the numbers of newts present in a pond. HSI scoring can be useful in:

- Evaluating the general suitability of a sample of ponds for great crested newts
- Comparing general suitability of ponds across different areas
- Evaluating the suitability of receptor ponds in a proposed mitigation scheme

2.2 eDNA Methodology

2.3.1 Suitable ponds within 250m of the site were surveyed for the presence/absence of GCN eDNA.

2.3.2 Environmental DNA (eDNA) is a survey technique that can help determine the presence or absence of great crested newts in ponds. Great crested newt DNA is released into aquatic ponds through urine, faeces, shed skin cells and saliva. It can persist in water for several weeks and can therefore be collected and tested. This is an effective way to determine presence/absence of great crested newts. Water samples were gathered on 02/06/25. Samples were then sent to SureScreen Scientifics for analysis.

2.3.3 Limitations: For presence/absence surveys, eDNA can only be sampled between 15th April and 30th June. Although samples taken outside this period can show presence, for example if larval newts are in a pond, these samples cannot be used to determine absence. In certain situations, eDNA survey results may not always be conclusive. Since eDNA can be inconsistent depending on where animals have been in a pond, sampling in multiple parts of a pond increases the chance of successfully collecting eDNA. The presence of sediment and algae in samples can inhibit the laboratory test for eDNA. The survey was conducted during the optimum timing (mid-March – end of June) for GCN eDNA surveys, therefore, timing of the survey was not a constraint.

3 Results

3.1 Observations

3.1.1 No GCNs were observed during the survey.

3.1.2 Waterfowl was present on the pond at the time of survey.

3.2 HSI Results

3.2.1 **One** pond was identified within the survey area (**Appendix 1**) and a HSI survey was carried out. The results of the HSI survey are presented in **Table 2** below.

Table 2. The Habitat Suitability Index (HSI) results for ponds surveyed on site.

Great crested newts HSI results	
Pond reference number	Pond 1
Grid reference	SE 14539 06146
Factor 1: Location	1.00
Factor 2: Area	*
Factor 3: Pond permanence	0.90
Factor 4: Water quality	0.33
Factor 5: Shade	1.00
Factor 6: Waterfowl	0.67
Factor 7: Fish	0.33
Factor 8: Pond density	1.00
Factor 9: Terrestrial habitat quality	0.67
Factor 10: Macrophyte cover	0.35
HSI Score	**0.63**
Suitability for great crested newts	**Average**

*Factor 2: pond area was omitted from the calculation, as the pond was greater than 2000 m^2.

3.3 eDNA Results

3.3.1 The eDNA samples were analysed by SureScreen Scientifics to test for GCN presence. A **negative** result was produced, indicating an absence of GCNs in the pond (**Appendix 4**)

4. Conclusions

4.1 The pond has average suitability to support breeding GCNs, but the eDNA analysis indicated that GCNs were not present, therefore, a GCN Mitigation Licence is not required.

4.2 The development will see the loss of an area of the pond. However, it also includes a new wetland area being created which could provide suitable habitat for amphibians in the future.

5. References

Amphibians:

Amphibian Habitat Management Handbook. 2011. Baker J., *et al*.

Great Crested Newt Conservation Handbook. 2001. Langton T., Beckett C. & Foster J. FROGlife.

Great Crested Newt Mitigation Guidelines. 2001. Whitehurst J. English Nature (Natural England).

Herpetofauna workers handbook. 2003. Gent T. & Gibson S. Joint Nature Conservation Committee.

Websites:

Amphibian and Reptile Conservation (ARC). <http://www.arc-trust.org/>.

Google Maps. **<**http://maps.google.co.uk/**>**

Herpetofauna Conservation Turst (HCT). < http://www.herpconstrust.org.uk/index.php >.

Multiple-Agency Geographic Information for the Countryside (MAGIC). <http://www.magic.gov.uk/>

Natural England. < http://www.naturalengland.org.uk/>

Nature on the Map. Natural England. <www.natureonthemap.org.uk>

Reptiles and Amphibians of the UK. <http://www.herpetofauna.co.uk/ >

Relevant Legislation:

Wildlife and Countryside Act 1981

- https://www.legislation.gov.uk/ukpga/1981/69/contents
- https://jncc.gov.uk/our-work/wildlife-countryside-act/

The Conservation of Habitats and Regulations 2017

- https://www.legislation.gov.uk/uksi/2017/1012/contents/made

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

- https://www.legislation.gov.uk/uksi/2019/579/contents/made

Countryside and Rights of Way Act 2000

- https://www.legislation.gov.uk/ukpga/2000/37/contents

Appendices

Appendix 1: Site Plan and Map of Surveyed Ponds

Site name & address

Longley Farm
Longley Lane
Huddersfield
HD9 2JD

Key

- Pond
- Red Line Boundry

Google Hybrid

Scale

0 10 20 m

Site	Client
Longley Farm	J & E Dickinson
Project	**Author**
22888b GCN eDNA Collection and Testing	Grace Bramley
Plan ref	**Revision**
104 110 B	001

Appendix 2: Photographic Evidence


Photo 1: View of the pond.


Photo 2: View of the pond.


Photo 3: View of the pond.


Photo 4: Vegetation to the north of the pond


Photo 5: Vegetation to the northeast of the pond

Appendix 3: eDNA Result Technical Report

Folio No:	2215-2025
Purchase Order:	PO 22888b/GB
Contact:	JCA Ltd
Issue Date:	24.06.2025
Received Date:	06.06.2025

GCN Report

Technical Report

SureScreen Scientifics

Folio No: 2215-2025
Purchase Order: PO 22888b/GB
Contact: JCA Ltd
Issue Date: 24.06.2025
Received Date: 06.06.2025

SureScreen Scientifics

GCN eDNA Analysis

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 analyzing water samples, we can detect these small traces of environmental DNA (eDNA) to confirm GCN habitation or establish GCN absence.

Results

Lab ID	Site Name	OS Reference	Degradation Check	Inhibition Check	Result	Positive Replicates
GCN25 6782	Longley Farm - 22888b	SE 14539 06184	Pass	Pass	Negative	0/12

Matters affecting result: none

Reported by: Amy Bermudez

Approved by: Lauryn Jewkes

SureScreen Scientifics

Methodology

The samples detailed above have been analyzed for the presence of GCN eDNA following the protocol stated in DEFRA WC1067 'Analytical and methodological development for improved surveillance of the Great Crested Newt, Appendix 5.' (Biggs et al. 2014). Each of the 6 sub-sample tubes are first centrifuged and pooled together into a single sample tube which then undergoes DNA extraction. The extracted sample is then analyzed using real-time PCR (qPCR), which uses species-specific molecular markers to amplify GCN DNA within a sample. These markers are unique to GCN DNA, meaning that there should be no detection of closely related species.

If GCN DNA is present, the DNA is amplified up to a detectable level, resulting in positive species detection. If GCN DNA is not present then amplification does not occur, and a negative result is recorded. Analysis of eDNA requires attention to detail to prevent the risk of contamination. True positive controls, negative controls, and spiked synthetic DNA are included in every analysis and these have to be correct before any result is declared and reported. Stages of the DNA analysis are also conducted in different buildings at our premises for added analytical security.

SureScreen Scientifics Ltd is ISO9001 accredited and participates in Natural England's proficiency testing scheme for GCN eDNA testing.

Interpretation of Results

Sample Integrity Check: When samples are received in the laboratory, they are inspected for any tube leakage, suitability of sample (not too much mud or weed etc.) and absence of any factors that could potentially lead to inconclusive results. Any samples which fail this test are rejected and eliminated before analysis.

Degradation Check: **Pass/Fail**. Analysis of the spiked DNA marker to see if there has been degradation of the kit or sample between the date it was made to the date of analysis. Degradation of the spiked DNA marker may lead indicate a risk of false negative results.

Inhibition Check: **Pass/Fail.** The presence of inhibitors within a sample is assessed using a DNA marker. If inhibition is detected, samples are purified and re-analyzed. Inhibitors cannot always be removed, if the inhibition check fails, the sample should be re-collected.

Result: **Presence of GCN eDNA (Positive/Negative/Inconclusive)**
Positive: GCN DNA was identified within the sample, indicative of GCN presence within the sampling location at the time the sample was taken or within the recent past at the sampling location.
Positive Replicates: Number of positive qPCR replicates out of a series of 12. If one or more of these are found to be positive the pond is declared positive for GCN presence. It may be assumed that small fractions of positive analyses suggest low level presence, but this cannot currently be used for population studies. In accordance with the WC1067 Natural England protocol, even a score of 1/12 is declared positive. 0/12 indicates negative GCN presence.
Negative: GCN eDNA was not detected or is below the threshold detection level and the test result should be considered as evidence of GCN absence, however, does not exclude the potential for GCN presence below the limit of detection.
Inconclusive: Controls indicate inhibition or degradation of the sample, resulting in the inability to provide conclusive evidence for GCN presence or absence.

Appendix 4: Glossary

Metamorphosis- The process by which an organism physically develops after birth, an example of this is from tadpole to frog.

Terrestrial- On or of the Earth, with the opposite being aquatic or marine.

Water body- An accumulation of water in a specific area covering the Earth. It is often a result of precipitation such as rainfall or channelization of a water course.

Hibernation- The process by which a living organism passes through the winter in an inactive or dormant state.

Ectothermic- The process by which some organisms generate heat from their surroundings in order to raise or lower their body temperature. In short, their body temperature fluctuates with the surrounding environment.

Cohort- A collective name of all offspring hatched in a calendar year.

Metapopulation- A group of spatially separated population which interact with each other via immigration and emigration of individuals.

Refugia- Areas that provide shelter for amphibian species. They are generally natural but can also be man-made. They are typically constructed from fallen braches and a range of other organic material. Artificial refugia can be made from intertwined branches and ferns and/or corrugated iron strips.

Hibernaculum- Similar to a refuge, but specifically where organisms shelter during hibernation.

Appendix 5: Author Qualifications

Adam West, Principal Ecologist

BSc (Hons) Animal and Wildlife Management

Adam joined JCA to lead the expanding ecology department. Having returned to education as a mature student, Adam studied Countryside Management for two years before undertaking a Batchelor's degree, for which he was awarded First Class Honours. Adam has many years' experience in ecological consultancy, working on projects ranging from individual planning applications to national infrastructure projects. Adam holds a Natural England Level 1 great crested newt survey class licence, a Natural England Level 2 bat survey class licence (and the Scottish and Welsh equivalents) and a CSCS card.

Grace Bramley, Graduate Ecologist

BSc (Hons) Design and Innovation with Environmental Science

Grace joined JCA in 2024 after completing her degree from The Open University with a first-class honour's degree in design and environmental science. Prior to this she spent six years working in the automotive industry followed by three years in the chemical industry. She is conducting Preliminary Ecological Appraisal and Biodiversity Net Gain Assessments and working towards her protected species licenses.

Alex Donovan, Assistant Ecologist

MBiol BSc (Hons) Biology (Industrial)

Alex joined JCA in 2023 after graduating from the University of Leeds with a First Class Honours Integrated Master's degree in Biology, including an industrial placement year working in the Uplands Research Department of the Game and Wildlife Conservation Trust. Alex is a CIEEM Qualifying Member, and a member of the BTO's Bird Ringing Scheme and Nest Record Scheme. Alex holds a Natural England barn owl survey licence, and is working towards additional survey licences for bats, great crested newts, and white-clawed crayfish.

James Foster, Assistant Ecologist

BSc (Hons) Biology

James gained his undergraduate degree in biology in 2012 from University of Leeds. James has plenty of experience in ecology, having worked countless projects of different scales all over the north and midlands. James has over 11 years of experience surveying anything from reptiles to hedgerows and holds a Great crested newt licence level 1 and is working towards his bat licence and barn owl licence.

The information and advice which we have prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and bona fide opinions.

Signed

REDACTED

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Grace Bramley *BSc (Hons)*

26/06/2025

Reviewed by

REDACTED

.....

Alex Donovan *MBiol BSc (Hons)*

26/06/2025

Reviewed and authorised by

.....

James Foster *BSc (Hons)*

01/07/2025

ECOLOGICAL SERVICES

Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes
- Butterfly & Insect Surveys

Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)
- Planting Schemes
- Monitoring of bird or bat boxes.

ARBORICULTURAL SERVICES

Guidance for Architects & Developers

- British Standard 5837 Surveys
- Arboricultural Implications Assessments (AIA)
- Arboricultural Method Statements (AMS)

Advice for Engineers, Loss Adjusters and Insurers

- Tree Surveys for Subsidence
- Heave Assessment
- Tree Root Identification

Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control

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Arboricultural & Ecological Consultants

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