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APPENDIX 4: GREAT CRESTED NEWT REPORT

Client

Hargreaves Land Limited

Project

Lincolnshire Lakes (North), Scunthorpe

Date

January 2025

CONTENTS

TABLES

FIGURES

APPENDICIES

Rev	Issue Status	Prepared/Date	Approved/Date
-	Issue	CAG / BC / 19.12.24	AJB / 20.12.24

1.0 INTRODUCTION

1.1 The following report has been prepared by FPCR Environment and Design Ltd on behalf of Hargreaves Land Limited. It provides the results of Great Crested Newts (GCN) *Triturus cristatus* surveys undertaken at the Lincolnshire Lakes (North) Site, Scunthorpe (Central OS grid reference: SE 86470 09734), herein referred to as 'the Site' (see Figure 1 of the EcIA for location).

1.2 This document is provided as an Appendix to the Ecological Impact Assessment (FPCR, 2024) and provides the ecological assessment for GCN.

Study Objectives

1.3 The purpose of the surveys and subsequent assessment were to:

- ascertain the presence/likely absence of great crested newts *Triturus cristatus* (GCN) in waterbodies within 250m of the Site.

1.4 And where necessary:

- determine any likely impacts on GCN as a result of the development; and
- present a strategy for mitigation in order to minimise any impacts to GCN during construction.

2.0 LEGISLATION, POLICY CONTEXT AND STATUS

Legislation

2.1 GCN are afforded full protection at a European and UK level under the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife & Countryside Act 1981 (as amended).

2.2 Under Regulation 43 of the Conservation of Habitats and Species Regulations 2017 (as amended) it is illegal to:

- Deliberately capture, injure or kill any wild animal of a European Protected Species (EPS);
- Deliberately disturb wild animals of an EPS (affecting ability to survive, breed or rear young) – 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;
- Deliberately disturb wild animals of an EPS (impairing to migrate or hibernate) – disturbance of animals includes in particular any disturbance which is likely to impair their ability in the case of hibernating or migratory species to hibernate or migrate;
- Damage or destroy a breeding Site or resting place of an EPS.

2.3 Under the Wildlife and Countryside Act 1981 (as amended) it is illegal to:

- Recklessly or internationally kill, injure or take any wild animals included in Schedule 5;
- Recklessly or intentionally damage or destroy, or obstruct access to any structure or place which any wild animal included in Schedule 5 uses for shelter or protection;
- Recklessly or intentionally disturb any such animal while it is occupying a structure or place which it uses for shelter or protection.

Derogation

2.4 Although the law provides strict protection to European Protected Species (EPS), it also allows derogation from this protection under Regulation 55 of the Conservation of Habitats and Species Regulations 2017 (as amended) through the issuing of EPS licenses for development works. These licenses in England are currently determined and issued by Natural England.

2.5 In such circumstances, where a lawful operation is required to be carried out, which is likely to result in one of the above offences, an EPS licence may be obtained from Natural England to allow the operation to proceed.

2.6 As part of the licence applications process a number of 'Tests' have to be met by the application.

2.7 Natural England Guidance Note: European Protected Species and the Planning Process – Natural England's Application of the 'Three Tests' to Licence Applications (March 2011) states:

"In determining whether or not to grant a licence Natural England must apply the requirements of Regulation 53 of the Regulations and, in particular, the three tests set out in sub-paragraphs (2)(e), (9)(a) and (9)(b).

(1) Regulations 53(2)(e) states: a licence can be granted for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment".

(2) Regulation 53(9)(a) states: the appropriate authority shall not grant a licence unless they are satisfied "that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range."

Conservation status is defined as "the sum of the influence acting on the species concerned that may affect the long-term distribution and abundance of its population within its territory". It is assessed as favourable when:

- *Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and*
- *The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and*
- *There is, or will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.*

2.8 These tests must not only reach agreement with Natural England when assessing a Licence application, they must also be considered by the planning authority when determining a planning application to the extent that the LPA must be satisfied that a licence is likely to be granted should one be required.

Policy

2.9 GCN are listed as Species of Principal Importance included in the England Biodiversity List published by the Secretary of State under Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC).

2.10 The National Planning Policy Framework (NPPF) 2024[1] sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally prepared plans for housing and other development can be produced.

2.11 With regards to conserving and enhancing the natural environment the NPPF 2024 is concerned with protection through the planning system of statutory and non-statutory Sites of biodiversity and/or geological conservation value, as well as habitats and species protection and biodiversity conservation in the wider environment.

2.12 The Government Circular ODPM06/2005 provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact on the planning system and states that the presence of a protected species is:

…a material consideration when a planning authority is considering a development proposal which, if carried out, would be likely to result in harm to the species or its habitat.

2.13 GCN are also listed as a priority species in the Lincolnshire Biodiversity Action Plan[2].

Distribution

2.14 The species is widely distributed across northern and central Europe. However, the UK holds a significant proportion of the species in Europe and therefore worldwide. GCN are widespread over Britain but are found predominantly in the lowlands and are much rarer in Scotland, the south-west and Wales and they are absent from Ireland [3].

[1] Department for Levelling Up, Housing and Communities (2024). National Planning Policy Framework. Available at: https://www.gov.uk/government/publications/national-planning-policy-framework--2.

[2] Lincolnshire Biodiversity Partnership (2011) Lincolnshire Biodiversity Action Plan: 2011–2020 (3rd edition). Available from: https://www.nelincs.gov.uk/wp-content/uploads/2016/02/201110-LincolnshireBAP-3rd-edition.pdf

[3] Joint Nature Conservation Committee (JNCC) (n.d.) SAC Selection: Species Accounts – S1166 Great Crested Newt. Available from: http://jncc.defra.gov.uk/protectedsites/sacselection/species.asp?FeatureIntCode=S1166

3.0 METHODOLOGY

Desk Study

3.1 In order to compile existing baseline information, a desktop survey was undertaken for existing ecological data regarding the presence of GCN and other amphibians within 1km of the Site.

3.2 This included a review of:

- biological records requested from Lincolnshire Environmental Records Centre (LERC)
- granted EPS licences for GCN from https://magic.defra.gov.uk/magicmap.aspx
- statutory designated sites that include GCN as part of their designation from https://magic.defra.gov.uk/magicmap.aspx
- publicly available aerial imagery showing connectivity across the site and to the wider landscape

Habitat Suitability Survey

3.3 A GCN habitat suitability index assessment for was undertaken on accessible waterbodies on Site and within 250m of the Site on 11th May 2023.

3.4 These assessments provide a measure of the likely suitability that a waterbody has for supporting GCN. Whilst not a direct indication of whether or not a waterbody will support GCN, generally those with a higher score are more likely to support GCN than those with a lower score, and there is a positive correlation between HSI scores and waterbodies in which GCN are recorded. Ten separate attributes are assessed for each waterbody to calculate the suitability of the waterbodies to support GCN:

- Geographic location
- Pond area
- Pond drying
- Water quality
- Shade
- Presence of waterfowl
- Presence of fish
- Number of linked ponds
- Terrestrial habitat
- Macrophytic coverage

3.5 A score is assigned for each attribute and a total score is calculated between 0 and 1. Pond suitability is then determined according to the scale in Table 1.

Table 1: HSI score and suitability for supporting great crested newts

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

eDNA Survey

3.6 eDNA sampling was undertaken on 11th May 2023 in accordance with the protocol recommended by Natural England[4]. This comprised taking samples of agitated water from 20 locations around each waterbody and mixing thoroughly. 15 ml of this water was then placed into each of six sterile sample tubes containing preservative, precipitates and a DNA sequence that was used for degradation control. This was then transported under suitable conditions to ADAS[5] for analysis. Following analysis, results provided by the laboratory could have one of three outcomes which are described in Table 2, below.

Table 2: Possible results of eDNA analysis

Result	Description
Positive	A positive result means that eDNA from GCN was detected and they have been present within the water in the 20 days preceding sampling. An eDNA score would be provided indicating the number of positive replicates from a series of twelve.
Negative	DNA from GCN was not detected; in the case of negative samples the DNA extract is further tested for PCR inhibitors and degradation of the sample.
Inconclusive	Controls indicate degradation or inhibition of the sample, therefore the lack of detection of GCN DNA is not conclusive evidence for determining the absence of the species in the sample provided. Degradation can occur through poor storage of the samples or kits and inhibition can occur through unexpected chemicals in the sample.

Surveyor information

3.7 The HSI assessments and aquatic surveys were undertaken by appropriately experienced ecologists and led by a surveyor who holds a current Natural England Class Licence CL08

[4] Biggs J, etal, (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

[5] ADAS (n.d.) ADAS: Experts in Agricultural and Environmental Consultancy. Available from: https://adas.co.uk/

(surveying for great crested newts for scientific or education purposes). The relevant licence reference number is 2022-10439-CL08-GCN.

Limitations

3.8 Due to the transient and complex nature of ecosystems, no investigation can provide a complete representation or prediction of the natural environment present, however every effort has been made to ensure an accurate description of the Site in presented following best practice guidance, experience and professional judgement.

3.9 Data provided by third party sources collated during the desktop study is generally made up from a wide range of sources including (but not limited to) those submitted by ecological consultancies, wildlife conservation organisations and Volunteers. As such, this data is typically focused on areas of known nature conservation, is reliant upon formal surveys having been undertaken within an area or the presence of an expert within the locality (particularly for invertebrate records) and as such this data can never be fully relied upon as a complete ecological dataset for any given area. Rather, this data is used as a guide to likely presence of notable ecological features and can never be relied upon for likely absence.

3.10 eDNA surveys were not conducted on ponds 9, 10 and 12 as access permissions were not provided. If present, GCN from Ponds 9 and 10 are unlikely to access habitats on-Site due to the lack of connectivity caused by the dual carriageway (A1077(M)). These ponds are also stocked fishing ponds so are less likely to support breeding GCN. Pond 12 has no connectivity constraints and is located just within 500 meters of the site; however, as all surveyed ponds returned negative results for GCN, it is considered unlikely that this pond would yield a positive test for GCN. Therefore, the lack of access is not deemed a constraint on the results.

3.11 In accordance with CIEEM's "Advice Note on the Lifespan of Ecological Reports and Surveys"[6], survey data older than 18 months may require reassessment based on specific ecological factors. Following the negative results of the 2023 eDNA surveys, professional ecologists from FPCR conducted multiple site visits in 2024, the most recent being in November 2024. These assessments confirmed that the habitat and its management have remained consistent, with no significant changes observed, including any new connectivity to ponds. As such, we conclude that the survey data remains valid and reliable, and there is negligible risk of GCN utilising the Site.

4.0 RESULTS

Desk Study

4.1 No GCN records were returned by the desk study within 2km of the Site boundary. A search of MAGIC identified no EPS mitigation licences issued for GCNs within 2km of the site.

4.2 No statutory or non-statutory sites occur within the search area which include GCN populations as part of their designating features.

[6] CIEEM (2019). *Advice Note on the Lifespan of Ecological Reports and Surveys.* Chartered Institute of Ecology and Environmental Management, Winchester.

Field Survey

4.3 The desk study identified five ponds within 250m (P7, P9, P10, P11 and P13) and two ponds (P8 and P12) within 500m of the Site boundary.

HSI Assessment

4.4 Suitable terrestrial GCN habitat is present on Site, within areas of grassland, woodland and hedge and tree bases. Areas of hardstanding, arable fields and sparser vegetation offer less suitable habitat for GCN.

4.5 A total of seven waterbodies were identified within 500m of the Site, of which, five were within 250m. All ponds where access was granted were surveyed, this included P7, P8, P11 and P13. Ponds P9, P10 and P12 were not surveyed due to access limitations (see Figure 4.1).

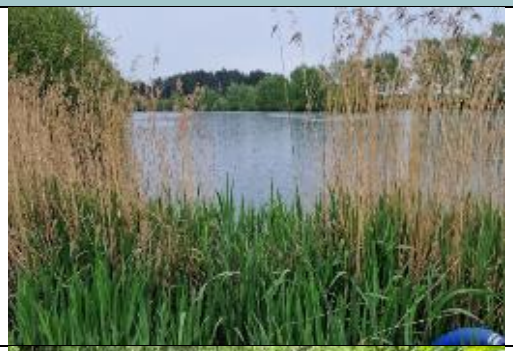
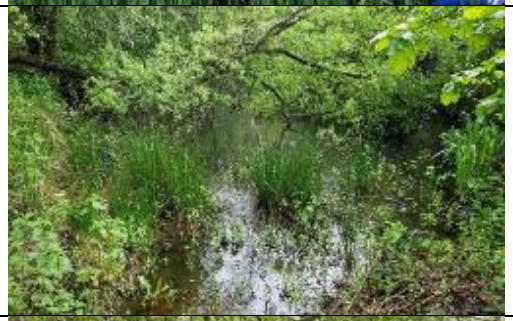
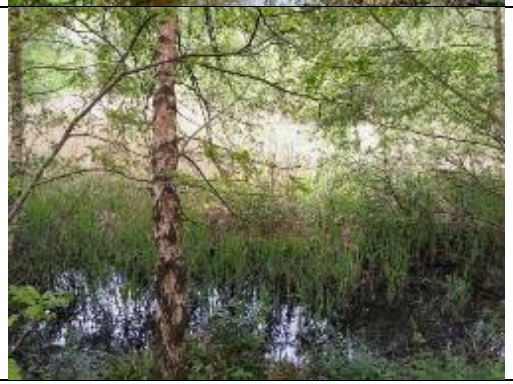
4.6 Details of scores from the HSI assessment of all surveyed waterbodies are provided in Appendix 4A and a summary, along with a description of each, is provided in Table 1, below.

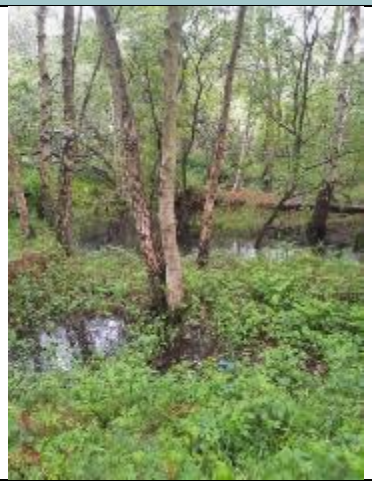
- pond 7 returned a HSI score of “poor”
- pond 11 retuned a HSI score of “average”
- ponds 8 and 13 returned a HSI score of “good”

eDNA Survey

4.7 All of the surveyed waterbodies returned negative eDNA results confirming absence of GCN. Results are provided in Appendix 4B and Table 3, below.

Table 1: Description of waterbodies and HSI scores

Ref	Photo	Description	Approx. Distance from Site Boundary	HSI Score	Suitability for GCN	eDNA result
P7		A large pond balancing pond to the north of the Site boundary within the Local Wildlife Site (LWS) -Brumby Common West.	105m	0.28	Poor	Negative
P8		A pond within the off-Site woodland, north of the Site boundary and to the north west of Brumby Common West (LWS).	420m	0.74	Good	Negative
P11		A pond south of Brumby Common Lane within the off-Site woodland and LWS - Westcliff Lagoon.	182m	0.63	Average	Negative

Ref	Photo	Description	Approx. Distance from Site Boundary	HSI Score	Suitability for GCN	eDNA result
P13		A pond within the off-Site woodland, north of the Site boundary and adjacent to Brumby Common West (LWS).	130m	0.78	Good	Negative

5.0 CONCLUSION

5.1 As eDNA testing has confirmed absence of GCN within all suitable waterbodies within 250m of the Site, it is considered that there is negligible risk of GCN utilising the site and no further surveys are considered necessary to inform an application. No licencing is required.

APPENDIX 4A – HSI RESULTS

Pond	SI -1		SI - 2		SI -3		SI -4		SI -5		SI -6		SI -7		SI -8		SI -9		SI -10		HSI score	Pond suitability
	geographical location		pond area		pond drying		water quality		shade (perimeter)		fowl		fish		ponds		terrestrial habitat		macrophytes			
	Field result (A, B, C)	SI score	Field result (m2)	SI score	Field result	SI score	Field result	SI core	Field result (% cover)	SI score	Field result	SI score	Field result	SI score	Density per km	SI score	Field result	SI score	Field result	SI score		
P7	A	1	30552	0.18	Never	0.9	Good	1	10	1	Major	0.01	Major	0.01	>10	0.72	Moderate	0.67	5	0.35	0.28	Poor
P8	A	1	3450	0.58	Rarely	1	Moderate	0.67	35	1	Minor	0.67	Possible	0.67	>10	0.55	Good	1	25	0.55	0.74	Good
P11	A	1	6696	0.18	Never	0.9	Poor	0.33	80	0.9	Minor	0.67	Absent	1	>10	0.55	Moderate	0.67	95	0.85	0.63	Average
P13	A	1	930	0.97	Rarely	1	Moderate	0.67	85	0.9	Minor	0.67	Possible	0.67	>10	0.67	Moderate	0.67	40	0.7	0.78	Good

APPENDIX 4B – ADAS RESULT LETTER

Client: Ella Middlemiss,
FPCR Environment and Design

ADAS

[redacted]

Sample ID: ADAS-258	Condition on Receipt: Good	Volume: Passed
Client Identifier: P7(W), 11186	Description: pond water samples in preservative	
Date of Receipt: 15/05/2023	Material Tested: eDNA from pond water samples	

Determinant	Result	Method	Date of Analysis
Inhibition Control†	0 of 2	Real Time PCR	18/05/2023
Degradation Control§	Within Limits	Real Time PCR	18/05/2023
Great Crested Newt*	0 of 12 (GCN negative)	Real Time PCR	18/05/2023
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10^{-4} ng/µL)#	4 of 4	Real Time PCR	As above for GCN

Report Prepared by:	[redacted]	Report Issued by:	[redacted]
Signed:		Signed:	
Position:	Director: Biotechnology	Position:	MD: Biotechnology
Date of preparation:	18/05/2023	Date of issue:	18/05/2023

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

** If all PCR controls and extraction blanks give the expected results a sample is considered: negative for great crested newt if all of the replicates are negative; positive for great crested newt if one or more of the replicates are positive.*

† Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not achieved, the sample is considered inhibited and is diluted as per the technical advice note prior to amplification with great crested newt primer and probes.

§ No degradation is expected within time frame of kit preparation, sample collection and analysis.

#Additional positive controls (10^{-1}, 10^{-2}, 10^{-3} ng/µL) are also routinely run, results not shown here.

ADAS eDNA Results Sheet: 1040055-ADAS-11186 (01) Page | 1 Edition: 01

Client: Ella Middlemiss,
FPCR Environment and Design

ADAS

[redacted]

Sample ID: ADAS-260	Condition on Receipt: Good	Volume: Passed
Client Identifier: P7(S), 11186	Description: pond water samples in preservative	
Date of Receipt: 15/05/2023	Material Tested: eDNA from pond water samples	

Determinant	Result	Method	Date of Analysis
Inhibition Control†	0 of 2	Real Time PCR	18/05/2023
Degradation Control§	Within Limits	Real Time PCR	18/05/2023
Great Crested Newt*	0 of 12 (GCN negative)	Real Time PCR	18/05/2023
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10^{-4} ng/µL)#	4 of 4	Real Time PCR	As above for GCN

Report Prepared by:	[redacted]	Report Issued by:	[redacted]
Signed:		Signed:	
Position:	Director: Biotechnology	Position:	MD: Biotechnology
Date of preparation:	18/05/2023	Date of issue:	18/05/2023

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

** If all PCR controls and extraction blanks give the expected results a sample is considered: negative for great crested newt if all of the replicates are negative; positive for great crested newt if one or more of the replicates are positive.*

† Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not achieved, the sample is considered inhibited and is diluted as per the technical advice note prior to amplification with great crested newt primer and probes.

§ No degradation is expected within time frame of kit preparation, sample collection and analysis.

#Additional positive controls (10^{-1}, 10^{-2}, 10^{-3} ng/µL) are also routinely run, results not shown here.

ADAS eDNA Results Sheet: 1040055-ADAS-11186 (01) Page | 2 Edition: 01

Client: Ella Middlemiss,
FPCR Environment and Design

[redacted]

Sample ID: ADAS-264	Condition on Receipt: Low Sediment	Volume: Passed
Client Identifier: P11, 11186	Description: pond water samples in preservative	
Date of Receipt: 15/05/2023	Material Tested: eDNA from pond water samples	

Determinant	Result	Method	Date of Analysis
Inhibition Control†	2 of 2	Real Time PCR	18/05/2023
Degradation Control§	Within Limits	Real Time PCR	18/05/2023
Great Crested Newt*	0 of 12 (GCN negative)	Real Time PCR	18/05/2023
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10^{-4} ng/µL)#	4 of 4	Real Time PCR	As above for GCN

Report Prepared by:	[redacted]	Report Issued by:	[redacted]
Signed:		Signed:	
Position:	Director: Biotechnology	Position:	MD: Biotechnology
Date of preparation:	18/05/2023	Date of issue:	18/05/2023

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

** If all PCR controls and extraction blanks give the expected results a sample is considered: negative for great crested newt if all of the replicates are negative; positive for great crested newt if one or more of the replicates are positive.*

† Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not achieved, the sample is considered inhibited and is diluted as per the technical advice note prior to amplification with great crested newt primer and probes.

§ No degradation is expected within time frame of kit preparation, sample collection and analysis.

#Additional positive controls (10^{-1}, 10^{-2}, 10^{-3} ng/µL) are also routinely run, results not shown here.

ADAS eDNA Results Sheet: 1040055-ADAS-11186 (01) Page | 3 Edition: 01

Client: Ella Middlemiss,
FPCR Environment and Design

[redacted]

Sample ID: ADAS-288 | Condition on Receipt: Good | Volume: Passed

Client Identifier: P7(E), 11186 | Description: pond water samples in preservative

Date of Receipt: 15/05/2023 | Material Tested: eDNA from pond water samples

Determinant	Result	Method	Date of Analysis
Inhibition Control†	2 of 2	Real Time PCR	17/05/2023
Degradation Control§	Within Limits	Real Time PCR	17/05/2023
Great Crested Newt*	0 of 12 (GCN negative)	Real Time PCR	17/05/2023
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10^{-4} ng/µL)#	4 of 4	Real Time PCR	As above for GCN

Report Prepared by:	[redacted]	Report Issued by:	[redacted]
Signed:		Signed:	
Position:	Director: Biotechnology	Position:	MD: Biotechnology
Date of preparation:	18/05/2023	Date of issue:	18/05/2023

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

** If all PCR controls and extraction blanks give the expected results a sample is considered: negative for great crested newt if all of the replicates are negative; positive for great crested newt if one or more of the replicates are positive.*

† Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not achieved, the sample is considered inhibited and is diluted as per the technical advice note prior to amplification with great crested newt primer and probes.

§ No degradation is expected within time frame of kit preparation, sample collection and analysis.

#Additional positive controls (10^{-1}, 10^{-2}, 10^{-3} ng/µL) are also routinely run, results not shown here.

ADAS eDNA Results Sheet: 1040055-ADAS-11186 (01) Page | 4 Edition: 01

Client: Ella Middlemiss,
FPCR Environment and Design

ADAS

[redacted]

Sample ID: ADAS-296	Condition on Receipt: Medium Sediment	Volume: Passed
Client Identifier: P13, 11186	Description: pond water samples in preservative	
Date of Receipt: 15/05/2023	Material Tested: eDNA from pond water samples	

Determinant	Result	Method	Date of Analysis
Inhibition Control†	2 of 2	Real Time PCR	17/05/2023
Degradation Control§	Within Limits	Real Time PCR	17/05/2023
Great Crested Newt*	0 of 12 (GCN negative)	Real Time PCR	17/05/2023
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10^{-4} ng/µL)#	4 of 4	Real Time PCR	As above for GCN

Report Prepared by:	[redacted]	Report Issued by:	[redacted]
Signed:		Signed:	
Position:	Director: Biotechnology	Position:	MD: Biotechnology
Date of preparation:	18/05/2023	Date of issue:	18/05/2023

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

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† Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not achieved, the sample is considered inhibited and is diluted as per the technical advice note prior to amplification with great crested newt primer and probes.

§ No degradation is expected within time frame of kit preparation, sample collection and analysis.

#Additional positive controls (10^{-1}, 10^{-2}, 10^{-3} ng/µL) are also routinely run, results not shown here.

N

0 0.25 0.5 km

Site boundary

250m buffer

500m buffer

Ponds

Surveyed Pond

No Access

date	drwn/chkd
16/01/25	CAG / ET

client

Hargreaves Land Limited

project

Lincolnshire Lakes (North)
Scunthorpe

title	scale
WATERBODY LOCATION PLAN	1:9,000 @ A3

number	rev
FIGURE 4.1	-

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L:\11100\11186\ECO\QGIS\QGIS 2.14\Plans\waterbody plans\11186-E-01 Waterbody Locations Plan.qgz
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