FUTURESECOLOGY

Cushman and Wakefield

Wrexham Gateway

GREAT CRESTED NEWT (GCN) ADDENDUM REPORT

Report Reference Number: FE500/GCN01

June 2026

Please note that the report is likely to be valid for a period of 12 months[1]. Where specific protected species surveys are undertaken the validation period of these surveys differs and must be considered carefully when utilising the data present within this report. For example, bat nocturnal emergency surveys are likely to be valid for a period of two seasons (a season being May – September) to support a planning application though to apply for a European Protected Species Licence surveys must be up to date and should be conducted in the current or most recent optimal survey season.

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REV	Issue Status	Author or Reviewer	Name & Qualifications	Position	Date
-	Draft 1	Author	A. Eales BSc (Hons)	Ecology Director	20.05.2026
		Reviewer	J. Eales BSc	Managing Director	03.07.2026

[1] https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf

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1.0 INTRODUCTION

1.1 The following report has been prepared by Futures Ecology Ltd. on behalf of Cushman and Wakefield. It provides the results of an environmental DNA (eDNA) assessment in support of a planning application for a mixed use development at a site in the centre of Wrexham, North Wales (grid reference: SJ 33016 50805).

AIMS & OBJECTIVES

1.2 The assessment was undertaken on 17th April, 2026 and comprised an eDNA great crested newt (GCN) presence / absence survey of an off site waterbody.

1.3 The key objectives of the survey were to:

- Establish whether GCN are presence within the impact risk zone of the application site;
- Assess the potential impacts of the proposed works on GCN if confirmed present;
- Provide suitable mitigation and compensation recommendations should GCN be confirmed present.

1.4 This report should be read in conjunction with the following reports:

- Bat Survey Addendum Report (BSR), June, 2026, Futures Ecology Ltd. (FE500/BSR01),
- Ecological Impact Assessment (EcIA), July, 2025, Futures Ecology Ltd. (FE500/EcIA01),
- Biodiversity Impact Assessment (BIA), July, 2025, Futures Ecology Ltd. (FE500/BIA01).

SITE LOCATION AND CONTEXT

1.5 The Site is located in the north west of Wrexham city centre off Station Approach and encompasses Wrexham Train Station, railway lines and embankments, an area of vacant ground and vacant commercial units. In the north wester corner is Wrexham District Scout and Girl Guide facilities. The Site boundary is shown in Figure 1 for reference.

DEVELOPMENT PROPOSALS

1.6 The proposals comprise the demolition of the Scout / Girl Guide facilities and retaining wall to facilitate the construction of a new four storey office building. An abandoned railway sidings structure will also be demolished as part of the proposals. New pedestrian links are proposed from Mold Road to the station platform and a new car park in the northern extent of Site.

2.0 LEGISLATION

2.1 GCN are afforded legal protection under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended). This legislation makes it illegal to deliberately disturb a GCN, damage / destroy a breeding site or resting place of a GCN, recklessly or intentionally kill, injure, or take a GCN. Recklessly or intentionally damage or obstruct access to or destroy any place of shelter or protection. Disturb a GCN whilst they are occupying such a place of shelter or protection.

2.2 GCN are also listed as a Species of Principal Importance in England under Section 7 of the Environment (Wales) Act 2016. GCN are also listed as a Priority Species within Wrexham[2].

3.0 METHODOLOGY

PERSONNEL

3.1 The protected species survey was conducted by R. Harmsworth BSc (Hons), MCIEEM, who has over 15 years' experience in ecological consultancy. R. Harmsworth is appropriately qualified for the surveys based on the CIEEM competencies and is registered to use a great crested newt *Triturus cristatus* Natural Resources Wales S094124/1 survey licence.

FIELD SURVEYS

Habitat Suitability Assessments

3.2 All accessible ponds within 500m were evaluated using the HSI scoring system developed by Oldham *et al.* (2000)[3] as part of the field surveys on the 17th April 2026.

3.3 The scoring system produces a value of habitat suitability calculated from scores achieved under a variety of categories which include; the location within the UK, pond area, frequency of drying out, water quality, percentage shade, presence of waterfowl, presence of fish, number of other ponds within 1km, quality of surrounding terrestrial habitat, percentage coverage by macrophytes.

3.4 Pond suitability is then determined using the scale shown below in Table 1.

Table 1 – HSI Scores as a Measure of Pond Suitability

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

[2] Wrexham Borough Council - Local Planning Guidance Note 32: Biodiversity and Development

[3] 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), 143-155pp.

HSI Score	Pond Suitability
>0.8	Excellent

Environmental DNA (eDNA)

3.5 One pond P1 was present within the impact risk zone of the application site. The eDNA assessment of P1 was undertaken on 17th April 2026.

3.6 The method used to collect the eDNA samples followed the Technical Advice Note for field and laboratory sampling of GCN environmental DNA, dated 30 September 2014[4].

3.7 Samples were taken under a NRW GCN licence holder using sample kits obtained from RSK ADAS Ltd.

3.8 The laboratory analysis, undertaken by RSK ADAS Ltd, provides one of the following outcomes described in Table 2 below.

Table 2 – Description of Possible Results of GCN eDNA Analysis

Result	Description
Positive	A positive result means that GCN are present in the water or have been present in the water in the recent past (eDNA degrades over around 7-21 days).
Negative	A negative result means that DNA from the GCN has not been detected in your sample.
Inconclusive	This occurs where the DNA from the GCN has not been detected but the controls have indicated that either: the sample has been degraded and/or the eDNA was not fully extracted (poor recovery); or the PCR inhibited in some way. This may be due to the water chemistry or may be due to the presence of high levels of sediment in samples which can interfere with the DNA extraction process.

Biosecurity Measures

3.9 To avoid cross-contamination of waterbodies and furthering the spread of amphibian diseases such as chytridiomycosis and ranavirus, biosecurity measures were also adhered to in accordance with Advice Note 4 (ARG UK, 2017)[5].

SURVEY LIMITATIONS

3.10 The search for waterbodies within 500m of the application site was undertaken by using Ordnance Survey plans and aerial imagery. These sources may not show all waterbodies within 500m of application site boundary. Some garden ponds may not be showing on these resources and therefore some waterbodies may not have been identified and have not been included in the assessments.

3.11 Ecological surveys can be limited by factors which affect the presence of plants and animals such as the time of year, migration patterns and behaviour. Therefore, the absence of any particular species should not be present in the future. However, the great

[4] Biggs J, Ewald N, Valentini A, Gaboriaud C, Griffiths RA, Foster J, Wilkinson J, Arnett A, Williams P and Dunn F 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] Amphibian and Reptile Group of the UK (ARG UK) (2017) Advice Note 4 – Amphibian Disease Precautions: A Guide for UK Fieldworkers. Version 2, Revised March 2017 accessed 02/04/26 https://www.arguk.org/info-advice/advice-notes/324-advice-note-4-amphibian-disease-precautions-a-guide-for-uk-fieldworkers-pdf-2/file

crested newt surveys were undertaken in line with best practice guidance and the conclusions drawn from the data are considered.

4.0 RESULTS

HABITAT SUITABILITY ASSESSMENT

4.1 There are no waterbodies present within the redline boundary. Reference to 1:25,000 ordnance survey maps and other publicly available information revealed a total of three ponds (P1, P2 and P3); refer to Figure 1 for further details regarding their locations in relation to the application site. Following a scoping exercise, one waterbody (P1) was found to have suitable commutable habitat between it and the application site. P2 and P3 were considered to be located sufficiently distant and with significant barriers to potential dispersal present. Therefore, any GCN population associated with P2 or P3 were considered unlikely to be affected by the proposals and scoped out of further assessment. Further details regarding the scoping assessment is provided in the Ecological Impact Assessment (EcIA) Futures Ecology July 2025 (FE500 EcIA01).

4.2 P1 was assessed using the Habitat Suitability Index (HSI) (Oldham *et al. 2000*)[6] and was found to be of 'Average' suitability with a predicted presence of 0.55. A summary of the calculation along with a photograph of the pond is provided in the Appendix A table.

ENVIRONMENTAL DNA ASSESSMENTS

4.3 The water samples of P1 were collected on 17th April, 2026. The results of the laboratory analysis confirmed that the waterbody was negative for GCN DNA and as such the pond is likely absent of GCN. Further information regarding the analysis and findings is provided in Appendix B.

5.0 CONCLUSION & EVALUATION

5.1 Three waterbodies (P1, P2 and P3) were identified within the impact risk zone of the proposed development. As a result of the scoping assessment, one pond (P1) was identified as a potential constraint that required further survey. As such, an environmental DNA assessment was undertaken to confirm presence or likely absence of GCN. The water samples were taken on 17th April, 2026 and results of the analysis provided on 23rd April confirming a negative result.

5.2 Therefore, in conclusion no impacts on GCN as a result of the proposals are expected.

[6] 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), 143-155pp.

APPENDIX A: HABITAT SUITABILITY INDEX ASSESSMENT

Ref:	SI -1 Geographical Location	SI - 2 Pond Area	SI -3 Pond Drying	SI -4 Water Quality	SI -5 Shade	SI -6 Fowl	SI -7 Fish	SI -8 Ponds	SI -9 Terrestrial Habitat	SI -10 Macrophytes	HSI Score	Pond Suitability	Predicted Presence	Pond Photographs
P1	1	0.70	0.9	0.67	1	0.67	0.67	0.9	0.33	0.35	0.68	Average	0.55	

APPENDIX B: RSK ADAS LTD DIAGNOSTICS GCN REPORT

Client:
FE500, [redacted] Futures Ecology
1040091-Futures-AF, FE500, version 1

RSK ADAS Ltd
Spring Lodge
172 Chester Road
Helsby
WA6 0AR

Tel: 01159 229249
Email: Helen.Rees@adas.co.uk

www.adas.uk

Sample ID: ADAS-11365			
Client Identifier: p1		Grid references/coordinates: SJ3308050771	
Description: pond water samples in preservative		Condition on Receipt: Low Sediment	
Date of Receipt : 21/04/2026		Volume: Passed	
Determinant	**Result**	**Method**	**Date of Analysis**
Inhibition Control†	2 of 2	Real Time PCR	23/04/2026
Degradation Control§	Within limits	Real Time PCR	23/04/2026
Great Crested Newt*	0 of 12 (negative)	Real Time PCR	23/04/2026
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:	23/04/2026	Date of issue:	23/04/2026

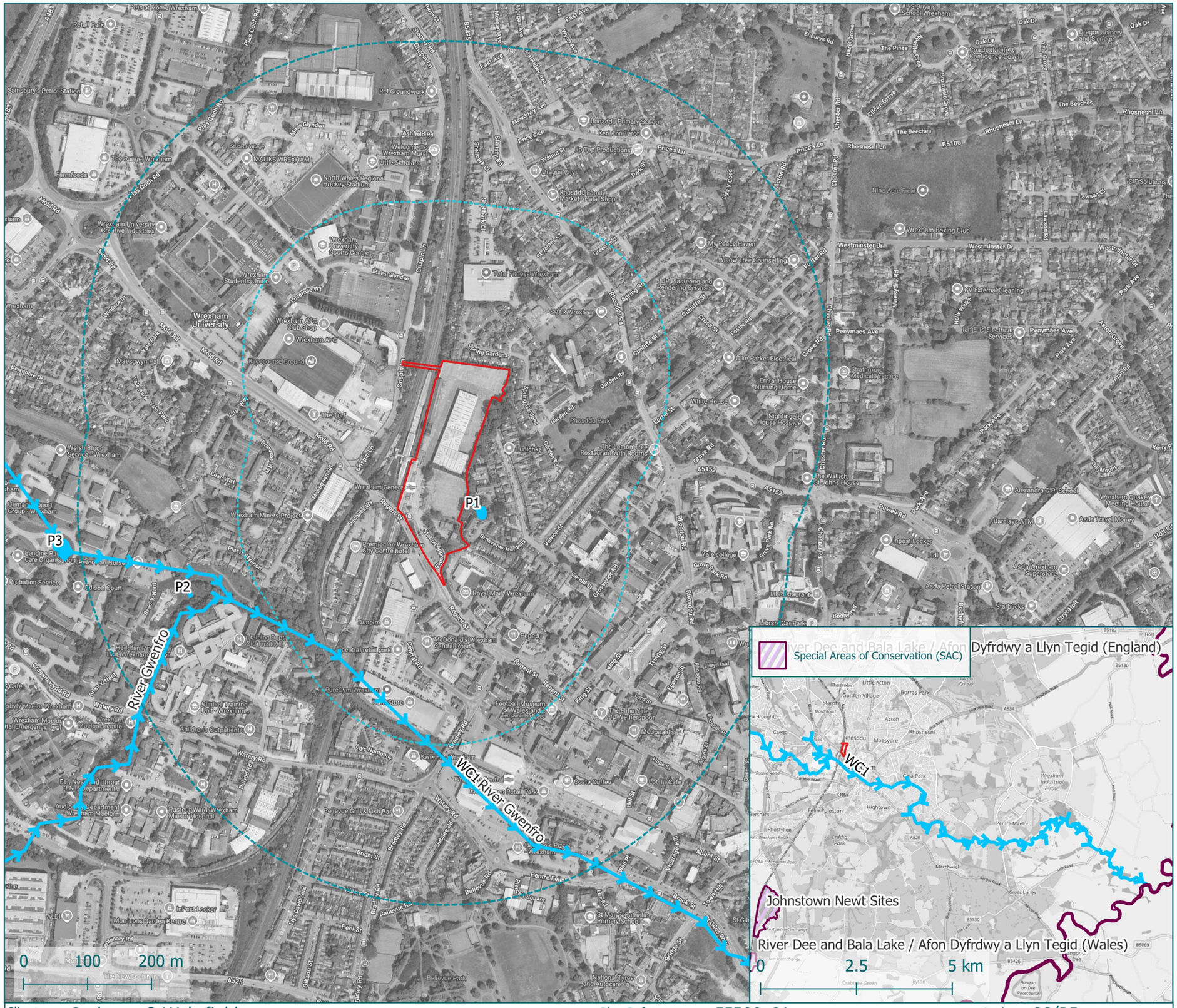
eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

** If all PCR controls and extraction blanks give the expected results a sample is considered: negative for GCN if all of the replicates are negative; positive for GCN 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

§ 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.



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Key

- Site Boundary

Site Buffers

- 250m Buffer
- 500m Buffer

Waterbodies

- Watercourses
- Waterbody
- Waterbody Line

Client:	Cushmen & Wakefield	Plan Reference:	FE500_01	Author:	CC/BF
Project:	Wrexham Gateway	Project Reference:	FE500	Date:	26/6/2026
Title:	Figure 1 - Waterbody Plan	Report Reference:	FE500/GCN01	Scale:	1:6,000

C:\Users\bella.forbes.FUTURES\Futures Ecology Ltd\James.Eales - Projects\FE500 Wrexham Gateway\QGIS\1_Plans\FE500_Desk Study Plan.qgs

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