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APPENDIX B: GREAT CRESTED NEWT REPORT

Client

Bellway Home Ltd.

Project

**Cronton Road,
Cronton**

Date

December 2025

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Rev	Issue Status	Prepared/Date	Approved/Date
-	Draft	HK / 30.05.25	AJB 06.06.25

1.0 INTRODUCTION

- 1.1 The following report has been prepared by FPCR Environment and Design Ltd on behalf of Bellway Homes Ltd. It provides the results of Great Crested Newts (GCN) *Triturus cristatus* surveys undertaken at Cronton Road, Cronton (Central OS grid reference: SJ4906088354), herein referred to as 'the Site' (see Figure 1 of the EclA for location).
- 1.2 This document is provided as an Appendix to the Ecological Impact Assessment (FPCR, 2025) and provides the baseline 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 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) 2024¹ 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 North Merseyside Biodiversity Action Plan².

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 Ireland³.

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 Merseyside Biobank and RECORD (LERC)
 - granted EPS licences for GCN from <https://magic.defra.gov.uk/MagicMap.html>
 - statutory designated sites that include GCN as part of their designation from <https://magic.defra.gov.uk/MagicMap.html>
 - publicly available aerial imagery showing connectivity across the site and to the wider landscape

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 North Merseyside Biodiversity Action Plan Great Crested Newt (2020). Merseyside Biodiversity Group. Available at: <https://www.merseysidebiodiversity.org.uk/download/sap2008-gcn/>

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>

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 23rd April 2025.
- 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 Sampling

- 3.6 eDNA sampling was undertaken on 23rd April 2025 in accordance with the protocol recommended by Natural England². 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

² Biggs J, et al, (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

ADAS³ 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.

Presence/Absence Surveys

3.7 Survey methods followed those recommended by Natural England as detailed in the Great Crested Newt Mitigation Guidelines⁴. To determine the presence or absence of GCNs, four individual survey visits were undertaken on the following dates.

- 27th March 2025
- 22nd April 2025
- 6th May 2025
- 12th May 2025

3.8 On each survey occasion three of a possible four different techniques were employed (bottle trap, torch, egg search, and sweep net). A summary of these techniques is detailed below.

Bottle Trapping

3.9 Involves the placement of traps, comprising inverted two-litre plastic bottles fixed in place with bamboo canes, at an average of one every two metres around the margins of the pond. The traps are partially submerged with an air bubble trapped inside. The traps are then checked for the presence of amphibians early the next morning, with any captive animals released back into the pond and the traps removed. Care was taken to ensure that trapping did not occur during excessively warm weather, when the temperature inside the trap could rise considerably, reducing oxygen levels and potentially suffocating the newts.

Torching

3.10 Torching is carried out after dark using high-powered torches. Surveyors slowing walk around the perimeter of each waterbody and searched by torchlight for amphibians in the shallows and

³ ADAS (n.d.) ADAS: Experts in Agricultural and Environmental Consultancy. Available from: <https://adas.co.uk/>

⁴ English Nature (2001). Great Crested Newt Mitigation Guidelines, English Nature, Peterborough.

the deeper areas used by great crested newt for courtship display. Approximately 15 minutes was spent torching each 50m of shoreline.

Egg Searching

- 3.11 Newts lay eggs singly on leaves of aquatic plants or other suitable pliable material, after which the material is folded over the egg to protect it. Great crested newt eggs can be distinguished from those of the other newts by their size, shape and colour. Submerged and floating vegetation and leaf litter is examined for folded leaves containing newt eggs. Once a great crested newt egg is identified at the waterbody, no further egg searching takes place, as evidence of breeding has then been confirmed, and so as to minimise further disturbance.

Sweep Netting

- 3.12 Using a long-handled dip-net the pond edges are swept for approximately 15 minutes per 50m of shoreline. This technique is one of the least effective for capturing adult newts, and cannot be used to estimate a population size, although can be very effective for detecting newt larvae, especially later in the season.

Surveyor information

- 3.13 The HSI assessments, eDNA sampling and presence/absence surveys were undertaken by appropriately experienced ecologists and designed and overseen by a surveyor who holds a current Natural England Class Licence CL08 (surveying for great crested newts for scientific or education purposes). The relevant licence reference number is 2022-10439-CL08-GCN.

Limitations

- 3.14 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.
- 3.15 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.

4.0 RESULTS

Desk Study

- 4.1 Four records of GCN were returned by the desk study within 2km of the Site boundary. The closest record was 696m NNE from the Site boundary in 2005. 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.

Field Survey

- 4.3 The desk study identified two ponds within 250m of the Site boundary (ponds 01-02) (see Figure 4.1).

HSI Assessment

- 4.4 Suitable terrestrial GCN habitat is present on Site, within areas of grassland, woodland, scrub, ditches and hedge and tree bases.
- 4.5 Both ponds within 250m of the Site were granted access and surveyed.
- 4.6 Details of scores from the HSI assessment of all surveyed waterbodies are provided in Appendix B1 and a summary, along with a description of each, is provided in Table 3, below.
- Pond 01 returned a HSI score of "average"
 - Pond 02 returned a HSI score of "excellent"

eDNA Survey

- 4.7 Pond 01 returned indeterminate eDNA results, neither confirming absence or presence of GCN.
- 4.8 Pond 02 returned negative eDNA results, confirming absence of GCN.
- 4.9 Results are provided in Appendix B2 and Table 3, below.

Presence/absence Surveys

- 4.10 As the eDNA results for pond 01 were inconclusive four presence/absence surveys were carried out.
- 4.11 The presence/absence surveys confirmed absence of GCN in pond 01.

Table 3: Description of waterbodies and HSI scores

Ref	Photo	Description	Approx. Distance from Site Boundary	HSI Score	Suitability for GCN	eDNA result
P1		Pond situated within the on- and off-Site woodland, North and West of the Site boundary.	0m	0.68	Average	Indeterminate
P2		Pond in an arable field, South of the Site boundary.	111m	0.87	Excellent	Negative

5.0 CONCLUSION

- 5.1 As eDNA testing and presence/absence surveys have confirmed absence of GCN in the two 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 B1 – 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		
P1	A	1.0	152	0.3	Never	0.9	Moderate	0.67	30	1.0	Minor	0.67	Possible	0.67	6	1.0	Moderate	0.67	10	0.4	0.68	Average
P2	A	1.0	479	1.0	Never	0.9	Good	1.0	10	1.0	Minor	0.67	Possible	0.67	>10	1.0	Moderate	0.67	60	0.9	0.87	Excellent

APPENDIX B2 – ADAS RESULT LETTERS

Sample ID: ADAS-8976

Client Identifier: Pond 1

Grid references/coordinates: Not Supplied

Description: pond water samples in preservative

Condition on Receipt: Low Sediment

Date of Receipt : 29/04/2025

Volume: Passed

Determinant	Result	Method	Date of Analysis
Inhibition Control [†]	2 of 2	Real Time PCR	30/04/2025
Degradation Control [‡]	Evidence of degradation	Real Time PCR	30/04/2025
Great Crested Newt*	Indeterminate	Real Time PCR	30/04/2025
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:		Report Issued by:	
Signed:		Signed:	
Position:	Director: Biotechnology	Position:	MD: Biotechnology
Date of preparation:	30/04/2025	Date of issue:	30/04/2025

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.



Sample ID: ADAS-8978

Client Identifier: Pond 2

Grid references/coordinates: Not Supplied

Description: pond water samples in preservative

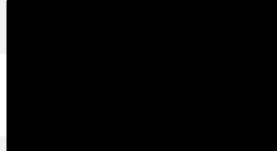
Condition on Receipt: Low Sediment

Date of Receipt : 29/04/2025

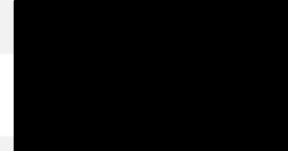
Volume: Passed

Determinant	Result	Method	Date of Analysis
Inhibition Control [†]	2 of 2	Real Time PCR	30/04/2025
Degradation Control [‡]	Within limits	Real Time PCR	30/04/2025
Great Crested Newt*	0 of 12 (negative)	Real Time PCR	30/04/2025
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:



Report Issued by:



Signed:

Signed:

Position:

Director: Biotechnology

Position:

MD: Biotechnology

Date of preparation:

30/04/2025

Date of issue:

30/04/2025

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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

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

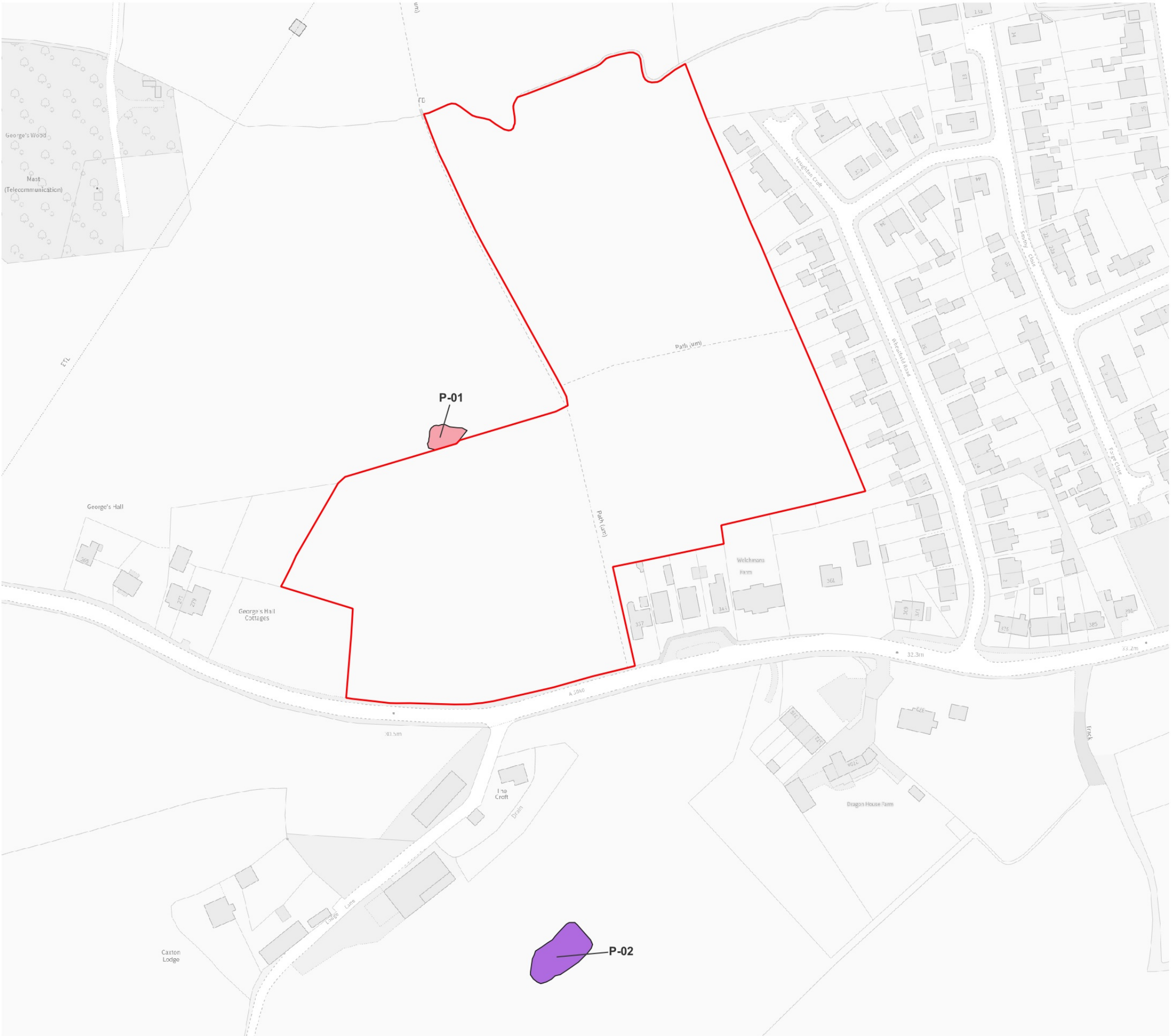
[§] Additional positive controls (10⁻¹, 10⁻², 10⁻³ ng/μL) are also routinely run, results not shown here.

FPCR Environment and Design Ltd

Registered Office: Lockington Hall, Lockington, Derby DE74 2RH

Company No. 07128076. [T] 01509 672772 [E] mail@fpcr.co.uk [W] www.fpcr.co.uk

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N

0

50

100 m

Site Boundary

eDNA Indeterminate

eDNA Negative

date	30/05/25	drwn/chkd	DV / HK
client	Bellway Homes Ltd		
project	Cronton Road, Knowsley		
title	POND LOCATION PLAN - GCN	scale	1:1,800 @ A3
number	FIGURE 4.1	rev	-
STATUS			