

Harras Moor, Whitehaven – Great Crested Newt eDNA Survey

Terms of reference:

PBA Applied Ecology Ltd was commissioned by Gleasons to undertake a great crested newt (GCN) *Triturus cristatus* environmental DNA (eDNA) survey of five ponds all within 250 m of the site at Harras Moor. This is for the proposed housing development on site. A recent desk study within a Preliminary Ecological Appraisal (PEA) (PBA Ecology, 2025) identified no records of GCN within 2 km of the site, however the site was given a GCN Green Risk Zone by the Natural England data set which outlines a potential risk of GCN on site. Given these findings, it is possible that GCN are utilising the site, and therefore an eDNA survey of the ponds were recommended.



Figure 1: Map showing the site red line boundary, blue line indicating the 250 m buffer from the site, and five ponds within 250 m of the site.

Legislation:

Great crested newts are a European Protected Species, protected via a combination of Regulation 41 of the Conservation of Habitats and Species Regulations 2010, and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence to:

- Deliberately or recklessly capture, kill or injure any individual, cause deliberate disturbance to a population, take or destroy the eggs of either species, or damage or destroy a breeding site or place of shelter used by this species.

Methods:

The survey was conducted on 21/05/2026 by Sebastian Ashton MA (oxon) ACIEEM & Matt Soper MSc. This date falls within the optimal survey period of 15th April to 30th June. The weather conditions were overcast, with low wind and the temperature was 18°C. Samples were collected in accordance with the technical advice note WC1067 (Biggs *et al.*, 2014) as approved by Natural England. Twenty 30 ml samples were extracted from the ponds and added to a Whirl-Pak provided by the laboratory. Samples were mixed within the bag for 10 seconds, and 15 ml was pipetted into each of the six sample tubes provided by the laboratory. This process was repeated for each pond, with strict biosecurity protocols being followed to ensure no cross contamination between sample ponds. Samples were packaged and sent by 24-hour delivery to the laboratory (SureScreenScientifics) for analysis. Photos of each pond are provided at the end of this report.

Results

The laboratory analysis concluded a negative result for GCN eDNA in the water samples collected from the all ponds within 250 m of Harras Moor. See table 1 below.

Table 1: GCN survey results (Surescreen Scientifics, 2026).

Lab ID	Site Name	OS Reference	Degradation Check	Inhibition Check	Result	Positive Replicates
GCN26 04951	Harras Moor - 5		Pass	Pass	Negative	0/12
GCN26 04952	Harras Moor - 4		Pass	Pass	Negative	0/12
GCN26 04953	Harras Moor - 3		Pass	Pass	Negative	0/12
GCN26 04954	Harras Moor - 2		Pass	Pass	Negative	0/12
GCN26 04955	Harras Moor - 1		Pass	Pass	Negative	0/12

Conclusion

The absence of GCN eDNA in the pond water samples can be interpreted to conclude that [no] GCN are using the pond as an aquatic habitat. These results, suggest that GCN are highly unlikely to be present on site. Therefore, the housing development are unlikely to significantly impact GCN.

If GCN, or any newt that cannot confidently be identified as not GCN, is detected on site at any point during the works, the works should be suspended, and a suitably qualified ecologist consulted immediately to provide further advice and recommendations.

Survey Constraints

Unless stated otherwise, the information provided within this report is valid for a maximum period of 24 months from the date of survey. If works at the site have not progressed by this time, another site visit may be required in order to determine any changes in site composition and ecological constraints.

References

ARG UK (2010). ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index

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.

Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). *Herpetological Journal* 10(4), 143-155.

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Photograph	Notes
 pond 1	
 pond 2	
 pond 3	

Photograph	Notes
 A photograph of a small, irregularly shaped pond surrounded by lush green grass and reeds. The pond is situated in a grassy field with a line of trees in the background. A red label in the bottom left corner reads "pond 4".	
 A photograph of a small pond surrounded by dense green vegetation, including tall reeds and shrubs. The pond is situated in a grassy field with a line of trees in the background. A red label in the bottom left corner reads "pond 5".	