
Coles Farm, Alcombe (Swimming Pool)

Great Crested Newt Presence Absence Survey

June 2026

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1. Introduction

1.1 Background

1.1.1 In June 2026, Seasons Ecology was instructed by WebsterHart, on behalf of the property owner, to undertake a great crested newt *Triturus cristatus* presence absence survey of two ponds located within the wider grounds of Coles Farm, Alcombe, Box, SN13 8QL (grid reference: ST 81116 69196). The survey follows on from a Preliminary Ecology Appraisal carried out by Seasons Ecology in May 2026.

1.1.2 A planning application is being submitted for the construction of a swimming pool (re-instatement) with associated utilities and services. The Preliminary Ecology Appraisal described the site in terms of its suitability to great crested newt, as follows:

“With consideration to the potential for great crested newt to utilise the site, there are no ponds on site, three ponds identified within 250m and six further ponds within 500m of the site. There are no intervening barriers between the three ponds within 250m and the site, two ponds being located within the ownership boundary 10m and 20m to the south-east. There is the minor intervening barrier of a minor unnamed road separating the six ponds within 500m from the site. There is one record for great crested newt, for a location approximately 1.3km to the south-west. Due to the locations of these waterbodies, lack of major intervening barriers and record of great crested newt in the vicinity of the site, it is considered that there is moderate potential for great crested newt to utilise the two ponds within the ownership boundary, and therefore also the terrestrial habitats on site.”

2. Methods

2.1.1 A Habitat Suitability Index assessment and survey was carried out, and water samples were collected for the presence absence survey of the two ponds.

2.1.2 The surveys were undertaken on 29th June 2026, led by Principal Ecologist, Kate Hayward MCIEEM, who holds a great crested newt survey licence.

2.2 Habitat Suitability Index (HSI) Assessment and Survey

2.2.1 Ten variables (Suitability Indices) were recorded during the survey and determined through desk-based study. These were then used in a formula to predict the suitability of the ponds to support great crested newt (following Oldham et al. 2000¹ and ARG UK Advice Note 5²).

¹ Oldham, R.S., Keeble, J., Swan, R. J. S., and Jeffcote, M. (2000) *Evaluating the suitability of habitat for the great crested newt (Triturus cristatus)* Herpetological Journal, Vol 10, pp143-155.

² ARG UK (2010) Advice Note 5, *Great Crested Newt Habitat Suitability Index*. May 2010.

2.2.2 The Suitability Indices are:

1. Geographic location – Three zones are identified within England, Scotland and Wales; optimal, marginal and unsuitable.
2. Pond area – The surface area of the pond.
3. Permanence – Whether the pond dries annually, sometimes dries, rarely dries or never dries.
4. Water quality – Based on invertebrate diversity and assessed as good, moderate, poor or bad.
5. Shade – Estimated percentage of the pond perimeter that is shaded, to at least 1m from the shore.
6. Presence of waterfowl – Assessed as either absent, minor or major.
7. Presence of fish – Assessed as either absent, possible, minor or major.
8. Pond count – The number of ponds evident within 1km of survey pond.
9. Quality of terrestrial habitat – Assessed as good, moderate, poor and none.
10. Macrophyte cover – Estimated percentage of the pond surface area occupied by macrophyte cover.

2.3 Presence Absence Survey

- 2.3.1 Concurrent with the HSI assessment and survey, a great crested newt presence absence survey was undertaken. The methodology was undertaken in line with the current Technical Advice Note for Environmental DNA (Freshwater Habitats Trust, 2014)³. Pond water samples were collected on 29th June 2026 and sent to an accredited laboratory (SureScreen Scientifics) for testing.

2.4 Constraints to Surveys

- 2.4.1 There were no constraints to the surveys.

³ 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.

3. Results

3.1 General Pond Descriptions

3.1.1 A general description of the two ponds, referred to as Ponds 1 and 2, is provided below. The locations of the ponds are shown on the plan at Annex 1 and photographs are provided at Annex 2.

- Pond 1 (approx. 10m from the development site) – The pond is approximately 4m² in area and square in shape, being of ornamental origin with vertical stone-lined banks. The pond supported approximately 30cm of water at the time of the survey.

The pond is surrounded by stone paving, with no marginal or terrestrial vegetation immediately adjacent to the waterbody. The vertical stone sides and lack of shallow margins reduce its suitability for amphibians.

Aquatic vegetation is abundant, with approximately 90% of the water surface occupied by floating and emergent vegetation, predominantly white water-lily (*Nymphaea alba*). Overall, the pond supports good aquatic plant cover relative to its size.

The pond is entirely unshaded, receiving direct sunlight throughout the day.

- Pond 2 (approx. 20m from the development site) – The pond comprises a small rectangular stone-lined forebay, connected by a narrow stone-lined channel approximately 5m in length to a circular ornamental pond, giving an overall waterbody length of approximately 6.5m. The circular pond measures approximately 1.5m in diameter and is likely of historic ornamental origin, being stone-lined with vertical sides. The circular pond is estimated to be up to approximately 20cm in depth, although the water depth could not be confirmed due to the extensive surface vegetation. The narrow channel and forebay appeared shallow and supported only a limited volume of water.

The banks comprise vertical stone retaining walls with no shallow margins or gently shelving edges. Whilst this limits accessibility for amphibians, the stonework provides structural diversity around the pond perimeter.

The pond is situated within a mature garden and is surrounded by dense shrubs, ornamental planting and scattered trees, providing suitable terrestrial habitat in the immediate vicinity. Moss-covered stonework occurs around the pond margins.

Aquatic vegetation is abundant, with approximately 90–95% of the water surface covered by common duckweed (*Lemna minor*). Additional aquatic vegetation includes a central stand of emergent vegetation and water-lilies (*Nymphaea* sp.), which together occupy approximately 20–30% of the pond surface beneath the duckweed. Overall, the pond supports a good diversity of aquatic vegetation relative to its size.

The pond is approximately 50–60% shaded, primarily by mature shrubs and trees around the northern and western margins, whilst the southern edge is more open.

3.2 HSI Assessment and Survey

3.2.1 The results of the HSI assessment and survey of the ponds is provided in Table 1 below.

Table 1. HSI Assessment and Scores – Ponds 1 and 2, Coles Farm

HSI Criteria and Score	Habitat Suitability Assessment
<u>Pond 1</u> Geographical location: A (1) Pond area: Approximately 4m² (very small) (0.05). Pond permanence: Never dries (0.9). Water quality: Moderate (0.67). Shade: 0% (1). Waterfowl: None evident (1). Fish: None evident (1). Ponds in the local landscape (within 1km): At least nine ponds (0.8). Terrestrial habitat: Moderate (0.67). Macrophyte cover: Approximately 90% cover (0.9).	The pond achieves an HSI score of 0.66, indicating Average suitability for great crested newts.
<u>Pond 2</u> Geographical location: A (1) Pond area: Approximately 3m² (very small) (0.05). Pond permanence: Never dries (0.9). Water quality: Moderate (0.67). Shade: Approximately 50–60% (1). Waterfowl: None evident (1). Fish: None evident (1). Ponds in the local landscape (within 1km): At least nine ponds (0.8). Terrestrial habitat: Moderate (0.67). Macrophyte cover: 20%-30% cover (excluding duckweed) (0.6).	The pond achieves an HSI score of 0.63, indicating Average suitability for great crested newts.

3.3 Presence Absence Survey

3.3.1 The result of the presence absence survey of the ponds is provided in Table 2 below.

Table 2. Presence Absence Survey Results – Ponds 1 and 2, Coles Farm (SureScreen Scientifics, July 2026)

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
GCN26 05441	Pond 1	ST 81116 69196	Pass	Pass	Negative	0/12
GCN26 05442	Pond 2 - Round	ST 81116 69196	Pass	Pass	Negative	0/12

Matters affecting result: none

3.3.2 The eDNA result confirmed absence of great crested newt in the ponds with zero out of 12 positive replicates.

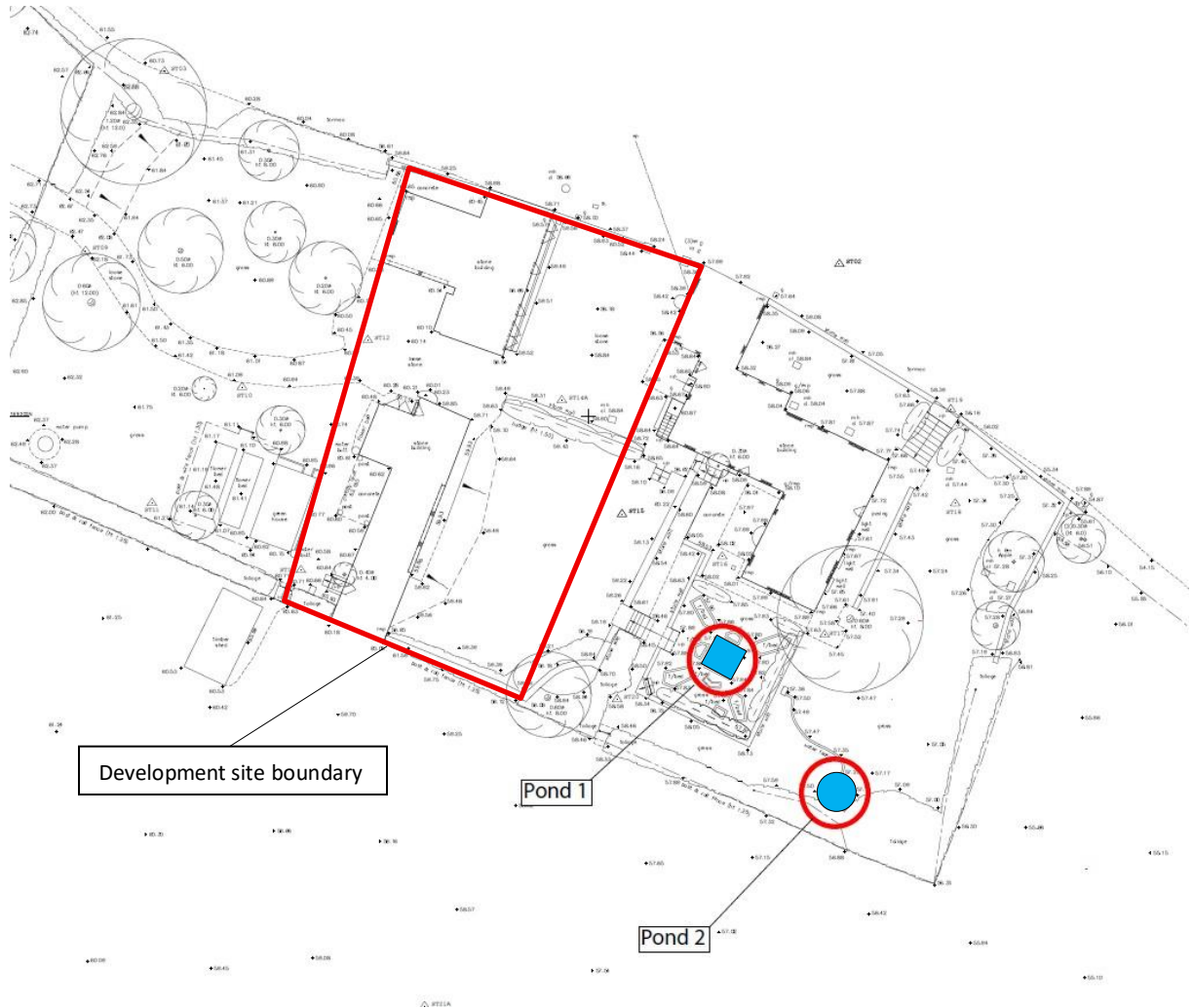
4. Evaluation and Recommendations

- 4.1.1 The results of the presence/absence survey confirm that great crested newts are absent from both ponds at Coles Farm. Although both ponds are assessed as being of Average suitability for great crested newts based on the Habitat Suitability Index (HSI), their suitability is constrained by their small size, steep stone-lined margins and limited availability of shallow marginal habitat. The absence of great crested newts during the survey indicates that the ponds are not considered to support a breeding population, despite the presence of other ponds within the surrounding landscape.
- 4.1.2 As great crested newts are absent from the ponds, the proposed development is not expected to result in adverse effects on this species. Furthermore, both ponds are located outside the proposed development footprint and will not be subject to direct impacts as part of the development proposals. No further surveys or mitigation measures for great crested newt are considered necessary.
- 4.1.3 Whilst great crested newts are absent, the site retains the potential to support low numbers of common amphibians, together with reptiles and small mammals, within the surrounding terrestrial habitats. A precautionary approach to vegetation clearance should therefore be adopted in accordance with the recommendations of the Preliminary Ecological Appraisal, as follows:
- Vegetation requiring removal should be subject to a two-stage cut, comprising an initial cut to approximately 150mm above ground level, followed by a second cut to ground level no sooner than 48 hours later. Vegetation should then be maintained at this short height until removal to encourage any animals to disperse naturally.
 - Any trenches or excavations left open overnight during construction should incorporate a suitable escape route, such as a timber plank extending from the base of the excavation to ground level, to prevent animals becoming trapped.
 - Should any protected species be encountered during the works, all works within the affected area should cease immediately and advice sought from a suitably qualified ecologist before works recommence.
 - A refuge/hibernaculum comprising partially buried logs and stone should be created along an undisturbed site boundary to provide long-term shelter opportunities for amphibians, reptiles and small mammals.

5. Annexes

Annex 1: Pond Locations in Relation to the Development Site (June 2026)

(plan provided by Adam Architecture)



6.

Annex 2: Pond Photographs (June 2026)

Photograph 1: Pond 1.



Photographs 2. Pond 2 with the forebay and channel on the right and circular pond on the left.

