

## Great Crested Newt Survey

**PROJECT TITLE:** Proposed Housing Development

**SITE ADDRESS:** Land at Nant Y Wenalt, Abernant

**DATE:** 11th July 2023

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Planning is being sought to create a residential development within the proposed development site boundary, located to the north of Abernant, Rhondda Cynon Taff. The site is centred at approximately SO 0103303570. A Preliminary Ecological Assessment of the proposed development site was undertaken on 1st June 2023. During the site visit the presence of two ponds within the site boundary was noted. The approximate location of the ponds are shown in the aerial map provided in Appendix 1. The ponds appeared broadly suitable for the presence of Great Crested Newt (GCN) and were subject to a Habitat Suitability Index (HSI) assessment.

The closest record for the presence of GCN available via SEWBRc is approximately 1.5km away from the proposed development site. However, it is understood that GCN surveys completed by WYG in 2019 confirmed the presence of GCN via an eDNA survey in a pond within 120m of the proposed development site.

### Habitat Description

**Pond 1** is present within the woodland to the north east of the development site and contained open water during the survey visit. The pond measures approximately 400m<sup>2</sup> with trees and bramble scrub around the perimeter.

**Pond 2** is located 20m to the west of Pond 1. Pond 2 measures approximately 1099m<sup>2</sup> and is choked with reedmace and had little open water present. Willow scrub is present all around the perimeter of the pond with the addition of trees at the eastern and southern perimeter of the pond.

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Photographs of both ponds are available in Appendix 2 of this report. The survey was undertaken during a period of prolonged hot weather, and there had been no rain for at least 3 weeks.

## Legislation

Great crested newts (*Triturus cristatus*) are a European protected species and are protected under the Conservation of Habitats and Species Regulation 2017. In summary, they are protected from:

- Deliberate capture, killing and injuring,
- Deliberate disturbance of a breeding site or resting place,
- Deliberate taking or destroying of eggs,
- Damage or destruction of a breeding site or resting place.

Great crested newts (GCN) are listed on Schedule 5 of the Wildlife & Countryside Act 1981 which protects them from intentional or reckless disturbance or obstruction when using a structure or place for shelter and / or protection. It is also an offence to sell, offer or expose for sale a great crested newt. Great crested newt and common toad are listed in Section 7 of the Environment (Wales) Act 2016 which makes them key species to sustain and improve biodiversity.

## Survey Methodology

A site visit was completed on the 3rd June 2023 by Aislinn Harris (NRW GCN Licence S092754/1). Water samples for eDNA analysis were collected during this visit. The water samples for eDNA analysis were collected following the instructions within the sample kit and then sent to SureScreen Scientifics for analysis.

A variety of survey methodologies can be used when undertaking survey work for GCN. Two methodologies have been used on this occasion, Habitat Suitability Index (HSI) and Environmental DNA (eDNA).

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### Habitat Suitability Index (HSI)

To assess a waterbody for its suitability to support GCN a Habitat Suitability Index (HSI) survey can be completed. A HSI survey of a waterbody aims to score the suitability of a waterbody between 0 and 1 to give an indication of whether or not GCN may use the feature. HSI uses 10 different categories to score the suitability of a waterbody:

- Geographical Location
- Pond Area
- Pond Drying
- Water Quality
- Shade
- Presence of water fowl
- Presence of fish
- Proximity to other ponds
- Surrounding terrestrial habitat
- Macrophyte cover

### Environmental DNA (eDNA)

Environmental DNA (eDNA) surveys involve taking samples from a waterbody and testing it for the DNA of GCN. When in a waterbody GCN can release DNA through shedding of skin cells, urine, faeces and saliva which can persist for a number of weeks. Samples need to be gathered from the water body and sent to a suitable laboratory for testing. Water samples should be collected between April and June to ensure the most reliable data and best chance of DNA still being present.

## **Results and Conclusions**

### **Pond 1**

#### Habitat Suitability Index (HSI)

The values assigned to each category are detailed below:

- Geographical Location - Zone B = SI 0.5

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- Pond Area - estimated at 400m<sup>2</sup> = SI 0.8
  - Pond Drying - sometimes dries= SI 0.5
  - Water Quality - poor = SI 0.33
  - Shade - 95% = SI 0.3
  - Presence of water fowl - absent = SI 1.0
  - Presence of fish - absent = SI 1.0
  - Proximity to other ponds = SI 0.8
  - Surrounding terrestrial habitat - moderate = SI 0,67
  - Macrophyte cover - 10% = 0.4

### **HSI Score = 0.58**

**An HSI score of 0.58 would indicate that Pond 1 has below average suitability for GCN**

### **Pond 2**

#### *Habitat Suitability Index (HSI)*

The values assigned to each category are detailed below:

- Geographical Location - Zone B = SI 0.5
- Pond Area - estimated at 1099m<sup>2</sup> = SI 0.95
- Pond Drying - sometimes dries = SI 0.5
- Water Quality - poor = SI 0.33
- Shade - 90% = SI 0.4
- Presence of water fowl - absent = SI 1.0
- Presence of fish - absent = SI 1.0
- Proximity to other ponds = SI 0.8
- Surrounding terrestrial habitat - moderate = SI 0.67
- Macrophyte cover - 90% = SI 0.9

### **HSI Score = 0.66**

**An HSI score of 0.66 would indicate that Pond 2 has average suitability for GCN**

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Environmental DNA e(DNA)

**Pond 1**

The samples collected were all suitable for data analysis. The sample was found to be negative for the presence of GCN. A negative result is indicative of the likely absence of GCN within the sampling location at the time the sample was taken or within the recent past at the sampling location.

**From the results of the HSI and eDNA results it is concluded that it is highly unlikely GCN are present within the proposed development site.**

**Pond 2**

The samples collected were all suitable for data analysis. The sample was found to be negative for the presence of GCN. A negative result is indicative of the likely absence of GCN within the sampling location at the time the sample was taken or within the recent past at the sampling location.

**From the results of the HSI and eDNA results it is concluded that it is highly unlikely GCN are present within the proposed development site.**

**No further surveys are recommended for GCN.**

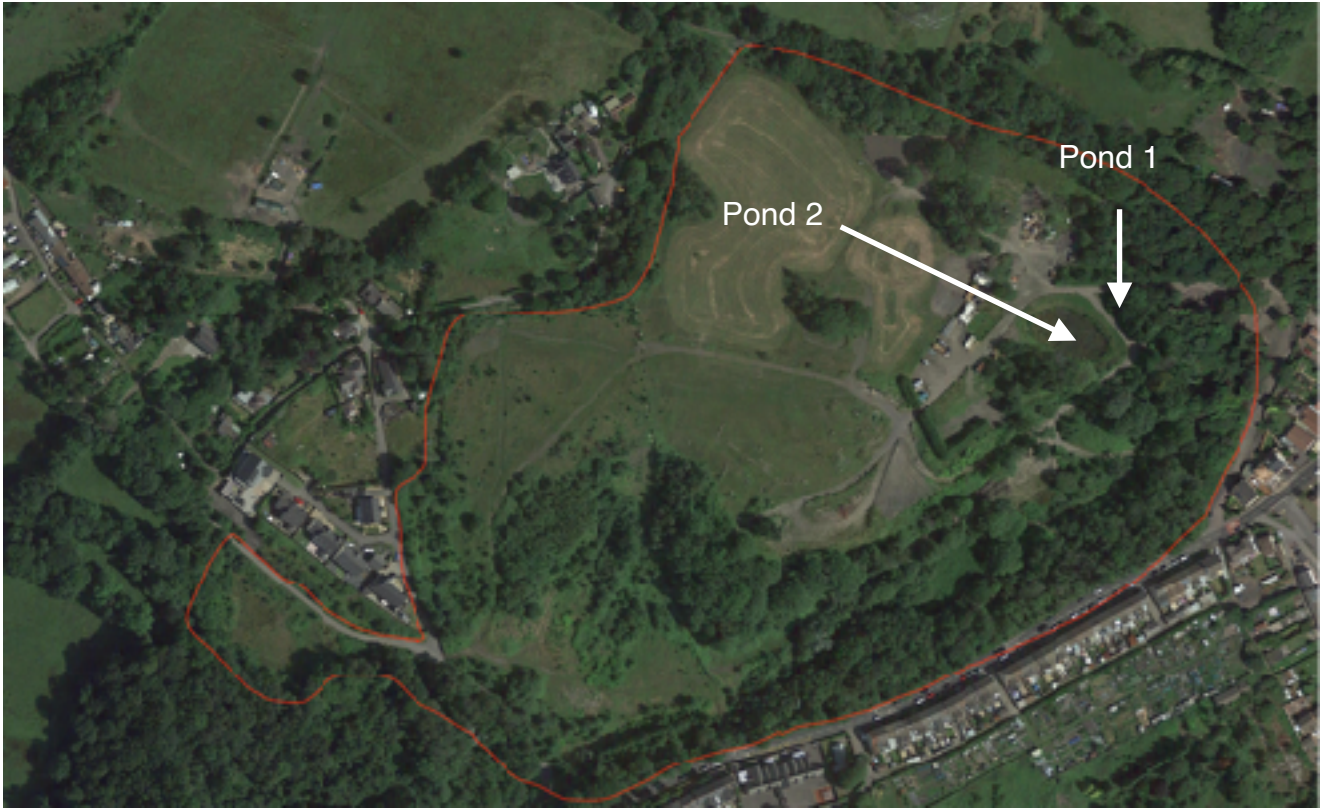
**Best Wishes**

**Ash Harris  
Director  
Ecological Services Ltd**

**Signed: Ash Harris      Date: July 2023**

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## Appendix 1 - Pond Location



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## **Appendix 2 - Pond Photographs**

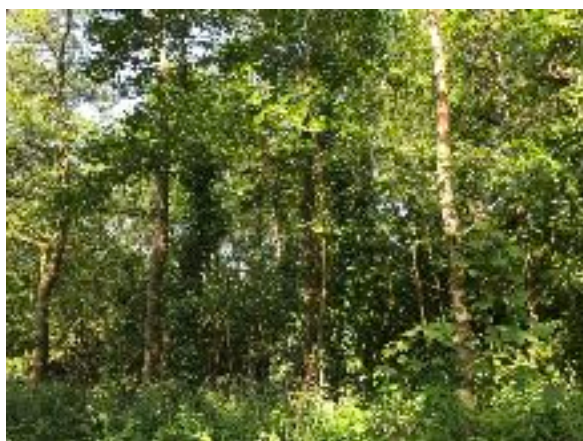
### **Pond 1**



Pond at water edge



Pond from path



Trees around perimeter of pond

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**Pond 2**



Pond looking south



Willow scrub around edge of pond



General view of pond