Imprint Ecology

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# Great Crested Newt

# Impact Assessment Report

50 Lewes Road, Ditchling, Hassocks, BN6 8TU

On behalf of Rob Beacroft

Version 01

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# 1. Executive Summary

## Site Details

- 50 Lewes Road, Ditchling, Hassocks, BN6 8TU (OS Grid Reference: TQ 32860 14927)

## Scope of Works

- Imprint Ecology was commissioned to undertake an Great Crested Newt (GCN) Impact Assessment at a detached bungalow which is required to inform a planning proposal to extend the existing detached dwelling and demolish the single detached garage on site.

## Key Ecological Constraints

- GCN and their breeding and resting places are fully protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended).

## Results

- Following an Ecological Impact Assessment (Imprint Ecology 2023) and in accordance with Natural England's standing advice for GCN, a further assessment of the impact of the proposals on GCN was undertaken.
- One pond located 12m northwest of the pond scored "below average" suitability to support GCN according to a Habitat Suitability Index (HSI) calculation, in particular due to the presence of fish, pond edge shading and its small size.
- No further surveys have been recommended.

## Mitigation

- The proposed development can proceed lawfully with minimal impact to GCN at this time.
- Precautionary mitigation measures have been recommended as best practice to avoid significant risks to any GCN or other small animals that may cross the site by chance.

## Ecological Enhancements

- Enhancements have been recommended to provide adequate shelter, foraging or hibernation opportunities on the site for GCN.

# 2. Introduction

## 2.1 Background and Proposed Development

Imprint Ecology was commissioned by Rob Beacroft to undertake an impact assessment for GCN at 50 Lewes Road, Ditchling, Hassocks, BN6 8TU (OS Grid Reference: TQ 32860 14927), hereafter referred to as 'the site'. The proposals include the extension of the existing bungalow and demolition of the existing single garage.

## 2.2 Experience of Ecologists

George Sayer (BSc (Hons) (Environmental Sciences), PgDip, (Endangered Species Recovery), MCIEEM, MArborA) holds a Natural England Level 2 licences for bats and GCN. George is an ecological consultant with 10 years' experience surveying and monitoring protected species.

Emily Sabin BSc (Hons) (Wildlife Conservation) AMRSB. She is an ecologist with four years' experience in ecological consultancy and a background in conservation research. She is a Volunteer Bat Rescuer for Sussex Bat Group and experienced in carrying out a range of protected species surveys. She is also the Water Vole Officer at the People's Trust for Endangered Species.

## 2.3 Purpose of the Report

This report contains the findings of an assessment for GCN around the building and surrounding habitat. It seeks to identify potential ecological constraints that the proposals may have upon GCN and provides recommendations for further survey, impact avoidance, mitigation and enhancements where required. This report is valid for a maximum of 24 months from the date of issue. Should the proposals or site alter in any way, an ecologist should be consulted to re-inspect the site and confirm that this report is still accurate.

## 2.4 Site Description

The site is located off the south of the B2116, in the village of Ditchling. The surrounding landscape is predominantly semi-rural residential houses and gardens, pasture fields, hedgerows, lines of mature trees, and woodland. The entire plot covers 0.4 acres. There are two ponds within 250m of the site. A map showing the geographical location of the site can be seen in Figure 1 and a map showing the ponds within 250m is shown in Figure 2.

Figure 1 - Site location - ©OpenStreetMap contributors 2024.

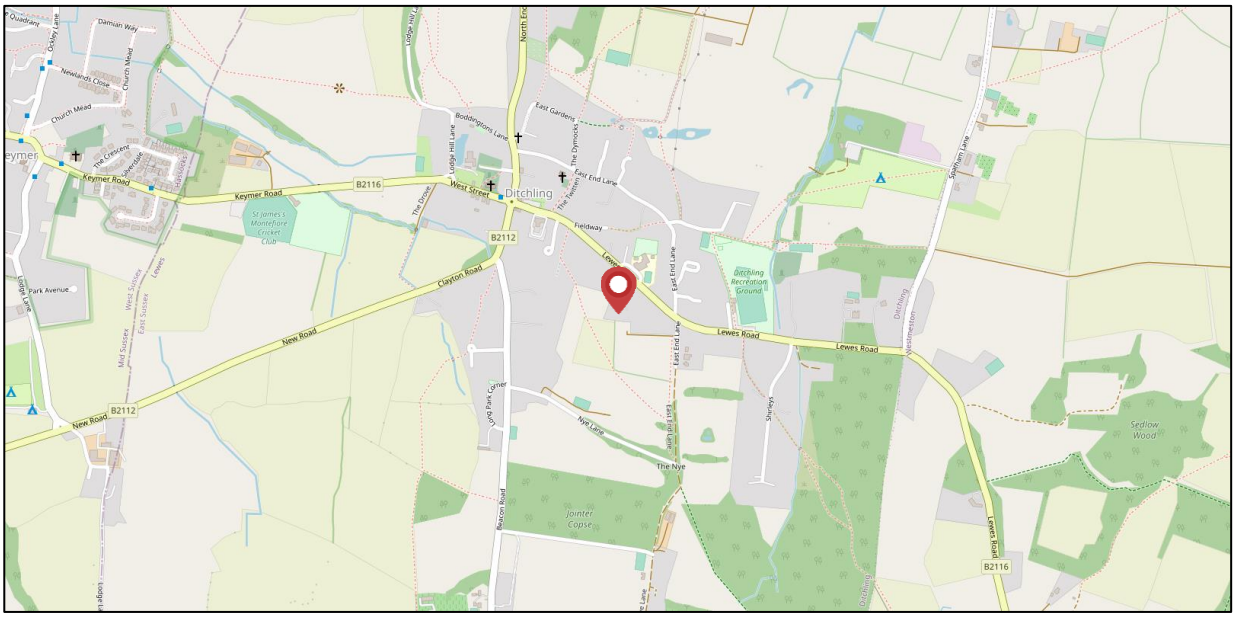
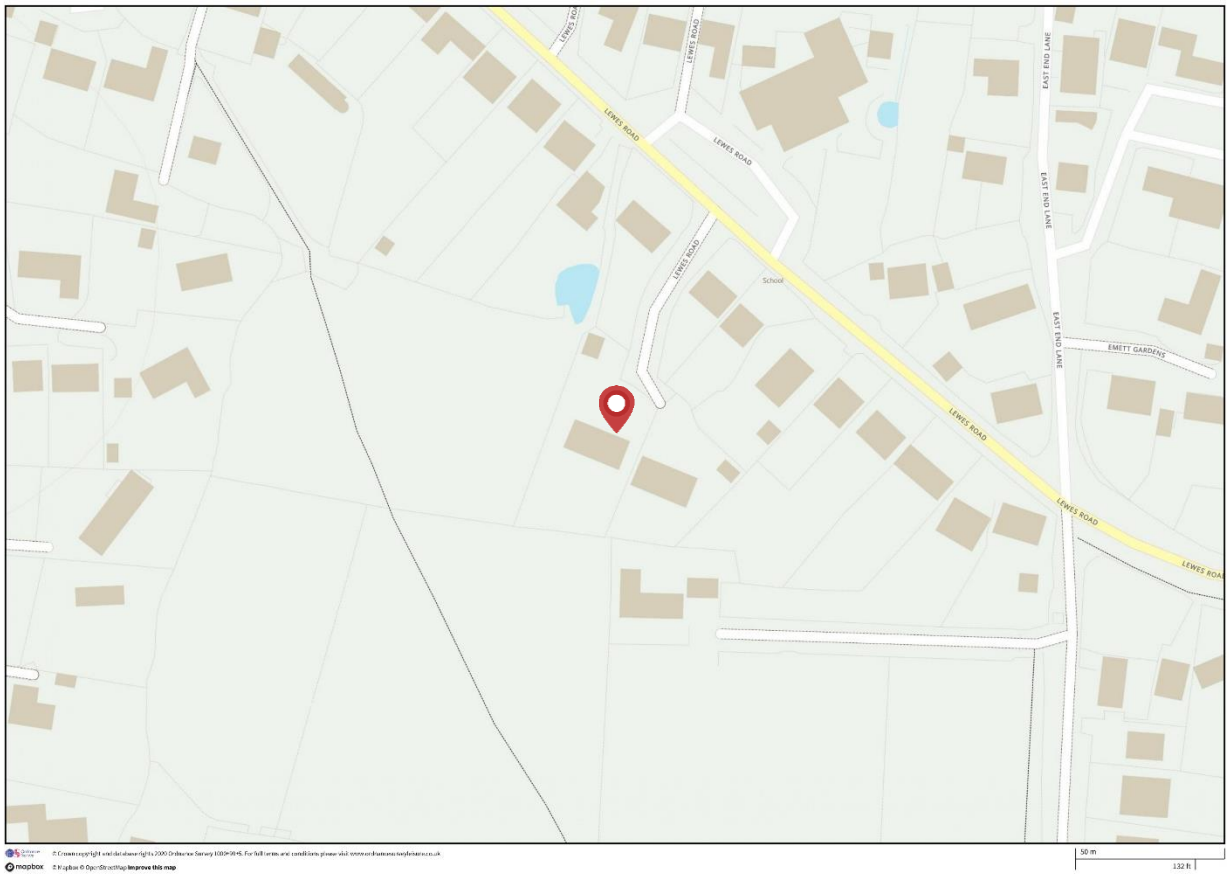



Figure 2 – Location of two ponds within 250m of the site. Source: Ordnance Survey (2024)



# 3. Legislation

## 3.1 GCN

GCN are designated and protected as European Protected Species (EPS). EPS are protected under the Conservation of Habitats and Species Regulations 2017. It is an offence to:

- deliberately kill, injure, disturb or capture a GCN
- deliberately take or destroy GCN eggs
- damage or destroy GCN breeding sites and resting places - even if GCN are not present
- possess, control or transport GCNs (alive or dead)

It is also an offence under the Wildlife and Countryside Act 1981 to intentionally or recklessly:

- disturb GCNs while they occupy a structure or place used for shelter or protection
- obstruct access to a GCNs place of shelter or protection

GCN are listed as rare and most threatened species under Section 41 of the Natural Environment and Rural Communities Act (2006).

# 4. Methods

A field walkover survey and habitat suitability assessment of the site was undertaken during daylight hours on 27th July 2023 by George Sayer (Natural England Level 2 licence holder for GCN).

MAGIC was used to provide information all records of granted GCN Mitigation Licences within a 1.0km radius of the site. Given the small size and limited low ecological value of the, a local biological records centre search for GCN records has not been provided. This is an approach in line with current guidance (CIEEM, 2020). Google Earth Pro satellite imagery and Ordnance Survey maps were used to locate suitable GCN breeding and terrestrial habitats near the site in accordance with Natural England's GCN Mitigation Guidelines (English Nature, 2001). Ponds within 250m of the site were identified.

Ponds that were not separated to the site by major barriers e.g. roads, were then assessed for their suitability to support breeding GCN through a Habitat Suitability Index (HSI) calculation. The HSI is a tool used to provide a numerical indication of the quality of a waterbody in terms of GCN breeding and associated habitat requirements on a scale of 0-1 (0 indicating unsuitable habitat, 1 representing optimal habitat).

HSI scores incorporate ten Suitability Indices (SI), all of which are factors thought to affect GCN, namely:

SI 1: Site location
SI 2: Size of pond
SI 3: Pond permanence
SI 4: Water quality
SI 5: Perimeter shading
SI 6: Waterfowl presence
SI 7: Fish presence
SI 8: Number of ponds within 1km
SI 9: Terrestrial habitat
SI 10: Macrophyte cover

Once a measurement or category has been given for each SI this can be converted to a figure between 0 and 1 for use in the HSI calculation. This figure is either translated from an assigned category or measurement or read from a graph in the case of a percentage or number. The HSI is then calculated using the following formula:

HSI = (SI1 x SI2 x SI3 x SI4 x SI5 x SI6 x SI7 x SI8 x SI9 x SI10)

This will give a final HSI result between 0 and 1 presenting a measure of habitat suitability for GCN.

# 5. Results

## 5.1 Desk Study

50 Lewes Road lies within the red zone for GCN. The suitability of the site itself for GCN is described in the Ecological Impact Assessment (Imprint Ecology, 2023) as follows:

"*There are eight ponds within a 500m radius of the site but there are no suitable waterbodies on site that would support great crested newts (GCN) during their breeding phase. The ornamental shrubs on site may offer shelter and foraging opportunities for reptiles/amphibians. Subsequently, colonisation of the site by reptiles and amphibians is considered unlikely and the site is considered to be of* ***site value*** *for occasional reptiles and amphibians*."

There have been no EPS mitigation licences granted for the destruction/damage of a GCN breeding or resting place within 1km of the site.

## 5.2 Field Survey and Habitat Suitability Index

Due to the site being within the Red Zone for GCN, and due to the close proximity of a pond to the northwest of the site, a further assessment for GCN was undertaken to ensure that GCN were thoroughly considered in context with the scale of the development and any mitigation measures could be incorporated into the proposals.

Non-aquatic habitats in the local landscape are of low quality to support GCN in their terrestrial phase, mainly comprising of suburban houses and gardens, hardstanding for patios, roads/driveways, and improved grassland pasture fields to the south. The site is not well connected to ancient woodlands or other high quality terrestrial GCN habitat.

There are 2 ponds within 250m of the site. Research has concluded that in terms of distance travelled by GCN from breeding ponds, they have been found at highest densities within terrestrial habitats of up to 200m and many studies have concluded a maximum migratory range of approximately 250m from a pond (Franklin, 1993) (Jehle, 2000) (Oldham, 1986). Further research also suggests that GCN are rarely found greater than 100m from their breeding ponds (Cresswell, 2004).

One pond lies 118m away, north of the site within the grounds of a primary school, set within hardstanding and on the opposite side of the B2116 road, which would act as a barrier for travelling GCN.

Another pond lies 12m away from the site. Due to the proximity of this pond, a HSI calculation was undertaken. Historic aerial mapping was also checked to see the extent of shading the pond receives throughout the year. The pond achieved a HSI rating of 0.59, which resulted in a “below average” suitability score (see Appendix 1). It scored particularly poorly due to its small size, high amount of shading from trees around the pond edge, and in particular the presence of fish, which decrease its suitability for breeding GCN. See photos 1-3.

Photo 1: Pond, looking north west

Photo 2: Pond, looking west

Photo 3: Pond, looking southwest

Overall, the site is absent of suitable habitat for GCN and based on the distribution of suitable breeding (aquatic) and terrestrial habitat within the local landscape it is highly unlikely that GCN would migrate or use the site, and unlikely that GCN would use this pond for breeding.

# 6. Impact Assessment and Mitigation

The impact assessment has demonstrated that GCN are likely absent from the site and the adjacent pond has “below average” suitability to support GCN. Further GCN surveys are not recommended.

GCN are highly unlikely to be impacted by the proposed works, which are residential and small in scale. However, common reptiles/amphibians and other small animals may cross the site by chance, therefore precautionary mitigation has been proposed in Section 5 of the the Ecological Impact Assessment (Imprint Ecology 2023). In particular, mitigation measures to protect GCN and small animals that may cross the site by chance should be as follows:

- All holes/excavations left open overnight will be covered or provided with an appropriate safe escape route for small animals to escape from, such as a gently sloping, solid wooden ramp with a rough surface
- Open pipework must be checked they are empty and then closed off at the end of each working day
- Any piles of rubble, brick, timber and other materials will be dismantled carefully by hand
- Areas of short grass near the construction zone will continue to be kept short
- No vehicles or machinery shall park on grassland overnight
- All material storage and debris piling/removal will be undertaken away from the pond, with materials stored on gravel or hard surfaces and up on pallets to avoid GCN or other animals using them for shelter
- In the unlikely event that a GCN should be found during works, all works shall cease until a licenced ecologist confirms a course of action

# 7. Ecological Enhancements

Enhancement measures to increase the amount of wildlife habitat on the site have been recommended in Section 6 of the Ecological Impact Assessment (Imprint Ecology 2023). Development proposals will be expected to demonstrate an overall positive impact on the natural environment as set out in SDLP Policy SD2.

The following enhancement measures will demonstrate a conscious effort to improve habitat for amphibians such as GCN that may use the site in future:

- Replanting of any disturbed land and any gappy borders of the site with native shrubs/wildflowers
- Addition of a log pile within a patch of scrub, at least 10cm buried into the ground. Optional small amounts of rubble can be salvaged from the construction works and they can be buried in soil or added to a log pile. Turf can also be added on top to create a GCN hibernacula

# 8. Conclusion

50 Lewes Road lies within the Red Zone for GCN, so a thorough impact assessment has been undertaken to understand the impact of the proposals on GCN habitat. There are two ponds within 250m of the site. One pond is on the opposite side of the B2116 within the grounds of a primary school surrounded by hardstanding. Another pond lies 12m away, and a Habitat Suitability Index calculation scored this pond scored with “below average” suitability to support GCN, particularly due to the presence of fish, high shading, and its small size.

Overall, the proposals are considered to have a negligible impact upon GCN and no further surveys are recommended.

Precautionary mitigation measures have been presented in this impact assessment. These have been recommended to safeguard any GCN or other small animals that may cross the site by chance.

Ecological enhancements have been recommended in this report to support GCN in particular. Further enhancements have been recommended in the Ecological Impact Assessment (Imprint Ecology 2023) to improve the site’s suitability for wider ecology and other protected species. The proposals therefore accord with relevant legislation and local and national planning policies.

# 9. References

Cresswell, W. (2004). An assessment of the efficiency of capture techniques and the value of different habitats for great crested newt Triturus cristatus. English Nature Research Reports: Report No. 576

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

Franklin, P. (1993). The migratory ecology and terrestrial habitat preferences of the great crested newt Triturus cristatus at Little Wittenham Nature Reserve. M.Phil Thesis. De Montfort University. Dept. Applied Biology and Biotechnology.

HM Government (1981). Wildlife and Countryside Act 1981 (as amended). Available at: http://www.legislation.gov.uk/ukpga/1981/69/contents

HM Government (2000). Countryside and Rights of Way Act, 2000. Available at: https://www.legislation.gov.uk/ukpga/2000/37/contents

HM Government (2019). National Planning Policy Framework. Department for Communities and Local Government. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf

Jehle, R. (2000). The Terrestrial Summer Habitat of Radio-Tracked Great Crested Newts (T. cristatus) and Marbled Newts (Triturus marmoratus). Herpetological Journal: 10(4): c137-142.

Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001), Great Crested Newt Conservation Handbook, Froglife, Halesworth.

Office of the Deputy Prime Minister. (2005, August 16). Biodiversity and geological conservation: circular 06/2005

# Appendix 1: Habitat Suitability Index Score

**ARGUK GCN HSI Calculator**

| | | **50 Lewes Road** |
|---|---|---|
| SI No | SI Description | SI Value |
| 1 | Geographic location | 1 |
| 2 | Pond area | 0.3 |
| 3 | Pond permanence | 0.9 |
| 4 | Water quality | 0.67 |
| 5 | Shade | 0.6 |
| 6 | Water fowl effect | 1 |
| 7 | Fish presence | 0.33 |
| 8 | Pond Density | 0.9 |
| 9 | Terrestrial habitat | 0.33 |
| 10 | Macropyhyte cover | 0.5 |
| **HSI Score** | | **0.59** |
| Pond suitability (see below) | | *Below average* |

| **HSI Score** | **Pond Suitability** |
|---|---|
| < 0.50 | Poor |
| 0.50 - 0.59 | Below average |
| 0.60 - 0.69 | Average |
| 0.70 - 0.79 | Good |
| > 0.80 | Excellent |

Based on ARGUK advice note 5 - Great Crested Newt Habitat Suitability Index