

**Tiryns
Forest Road
Wokingham
Berkshire
RG40 5QR**

GCN Habitat Assessment

Report ref.: R2626_GC_N_a

Report Quality Control Information	
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May 2024



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1 EXECUTIVE SUMMARY

- 1.1.1** John Wenman Ecological Consultancy LLP was commissioned by Kirsty Vijn of Bowen Evans Consultancy, on behalf of Mr Billy Mead to undertake a Great Crested Newt (GCN) habitat assessment at Tiryns in Wokingham to accompany a future householder planning application to be submitted to Wokingham Borough Council to undertake major works to the existing dwelling on site.
- 1.1.2** The application site falls within a 'Red' GCN Habitat Zone and therefore the Council require a statement demonstrating how the proposals will safeguard against the risk of harming GCN. The aim of the GCN habitat assessment was to determine the suitability of the habitats for GCN on site and whether further survey and/or mitigation would be required for the proposals.
- 1.1.3** The survey methods comprise a desk-based study for GCN (including a TVERC data search), site walkover survey, Habitat Suitability Index (HSI) and an impact risk assessment. There were no significant survey limitations.
- 1.1.4** The desk study revealed four ponds (Ponds 2 to 5) within 250m and three ponds (Ponds 6 to 8) within 500m of the application site boundary that could potentially support breeding GCNs. The study revealed two ponds (Ponds 2 & 5) with known GCN presence.
- 1.1.5** The site was a residential detached house with typical garden habitats, including a walled garden with formal and informal lawn, scattered trees and shrubs, and plant beds, i.e. terrestrial habitats of moderate value to GCN. The ornamental pond was assessed under the HSI and was calculated to be below average suitability for GCN and an eDNA test revealed a negative result for GCN being present in the pond. The development footprint is small and will impact existing building footprint and potentially small sections of the habitats surrounding the house which comprised of patio and gravel (i.e. terrestrial habitats of negligible value to GCN). It is understood at the time of writing this report that the pond, meadow and majority of the grassland will not be impacted by the future proposals.
- 1.1.6** The Natural England GCN Rapid Risk Assessment Tool was used to assess the risk of the development proposals adversely affecting GCN and the proposed works were considered highly unlikely to result in an offence.

- 1.1.7** In the absence of precautionary mitigation measures, there is a low risk that individual GCNs could potentially be injured and/or killed during the construction activities if a local population exists in the wider area. To avoid this, it is recommended that reasonable avoidance measures to minimise the risk of killing individual GCNs are implemented during the construction phase – as set out in **Section 6.3** below.

2 INTRODUCTION

2.1 Project Background

2.1.1 John Wenman Ecological Consultancy LLP was commissioned by Kirsty Vijn of Bowen Evans Consultancy, on behalf of Mr Billy Mead to undertake a Great Crested Newt (GCN) habitat assessment at Tiryns in Wokingham.

2.1.2 The GCN habitat assessment was commissioned to accompany a future householder planning application to be submitted to Wokingham Borough Council seeking consent to accompany a future householder planning application to be submitted to Wokingham Borough Council to undertake major works to the existing dwelling on site. It is understood at the time of writing this report that the pond, meadow and majority of the garden will not be impacted by the future proposals.

2.1.3 The application site falls within a 'Red' GCN Habitat Zone (see NatureSpace Impact Risk Maps) and therefore the Council require a statement demonstrating how the proposals will safeguard against the risk of harming GCN.

2.2 Site Location and Context

2.2.1 The site is a 1.05ha residential plot located south of Forest Road, in a semi-rural area north of Wokingham (central OS grid reference: SU 80628 70943).

2.2.2 The site is surrounded by open grassland and arable farmland, divided by linear hedgerows, with scattered trees and areas of priority deciduous woodland. There are nearby waterbodies approximately 50m to the north and 170m to the east of the site boundary. Dinton Pastures Country Park, containing multiple waterbodies including the River Loddon is approximately 2,500m west of the property.

2.3 Report Objectives

2.3.1 The aim of the GCN habitat assessment was to determine the suitability of the habitats for GCN on site and whether further survey and/or mitigation would be required for the proposed development.

3 LEGISLATION AND POLICY

3.1 Relevant Legislation

3.1.1 In England and Wales, GCNs found in the wild are fully protected under the Wildlife & Countryside Act 1981 (as amended) (WCA) and Conservation of Habitats and Species Regulations 2017 (as amended); the regulations are commonly referred to as the Habitat Regulations and hereafter referred to as such. The Habitat Regulations refer to European Protected Species (EPS) and the GCN is an EPS. Although the UK left the European Union on the 31st January 2020 and is therefore no longer tied to European legislation, the Habitat Regulations have been retained in their current format.

3.1.2 The legal framework underpinned by the WCA and Habitat Regulations makes these specific actions an offence as follows:

- Deliberately kill, injure, capture or take a wild GCN;
- Deliberately, intentionally or recklessly disturb GCNs; in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, to rear or nurture their young, to hibernate or migrate, or to significantly affect local distribution or abundance;
- Damage or destroy a place used by a GCN for breeding or resting; and
- Intentionally or recklessly obstruct access to any place used by a GCN for shelter or protection.

3.1.3 The GCN is listed as a species of principal importance for the conservation of biodiversity (a.k.a. priority species) in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

3.2 Planning Policy

3.2.1 The biodiversity duty imposed through the Environment Act 2021 states that Local Planning Authorities (LPAs) must consider what action they can take to conserve and enhance biodiversity in England. Government planning policy, such as the ODPM Circular 06/2005, requires LPAs to account for

the conservation of protected species when considering and determining planning applications.

- 3.2.2** The ODPM Circular 06/2005 states that *'the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.'* This policy means that in instances where there is a reasonable likelihood of GCNs being present and affected by a development, surveys must be undertaken to inform a mitigation strategy to be agreed prior to granting planning permission.

3.3 Mitigation Licensing

- 3.3.1** The government's statutory nature conservation body, Natural England, is responsible for issuing European Protected Species (EPS) mitigation licences that would permit activities that would otherwise lead to an infringement of the Habitat Regulations. An EPS mitigation licence can be issued if the following three tests derived from Regulation 55 have been satisfied:

- (2)(e) – the derogation is 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.'*
- (9)(a) – there is *'no satisfactory alternative'* to the derogation; and
- (9)(b) – *'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.'*

- 3.3.2** LPAs have a statutory duty under Regulation 7(3)(e) of the Habitat Regulations to consider and determine whether these three tests are likely to be satisfied by planning proposals affecting EPS before granting planning permission. If an EPS mitigation licence is necessary, a licence can be sought once all the necessary planning consents have been granted. Natural England aims to issue a decision on licence applications within 30 working days of submission.

- 3.3.3** The District Level Licensing (DDL) scheme is an alternative approach to traditional mitigation licensing which authorises developments that adversely affect GCNs. Instead of relying solely on site-specific mitigation and

compensation, a 'Conservation Payment' can be made to fund a net increase in GCN habitat elsewhere. Please refer to the NatureSpace guidance for more details.

4 SURVEY METHODS

4.1 Desk Study

- 4.1.1** The Thames Valley Environmental Records Centre (TVERC) was commissioned to undertake a search of GCN records for land within a 1km radius of the site.
- 4.1.2** The DEFRA Data Services Platform was used to obtain geospatial datasets, such as GCN eDNA Pond Surveys for District Level Licensing and GCN Class Survey Licence Returns, for examination on QGIS. The Multi-Agency Geographical Information Centre (MAGIC) website was examined for nearby granted EPS licences; MAGIC was used in conjunction with Google Earth satellite imagery to identify ponds and assess the permeability of habitats within a 500m radius of the application site.

4.2 Field Survey

- 4.2.1** The application site was visually assessed for its potential to support GCNs, a Habitat Suitability Index (HSI) (Oldham *et al.* 2000) and a sample of the pond water was taken and sent off for eDNA testing (SureScreen Scientifics) for the garden pond on the 16th April 2024 by John Wenman MCIEEM and Vicky Potts MCIEEM, both registered under the Natural England GCN Survey Class Licence CL08.
- 4.2.2** GCNs require standing water for breeding and favour small to medium-sized ponds with surface areas ranging from 50m² to 250m². For larval development to take place and young newts to emerge from ponds, ponds must hold water until the end of August (Langton *et.al.* 2001).
- 4.2.3** GCNs require terrestrial habitats for feeding, movement from pond to pond and for hibernation. Habitats of greatest value to GCNs are those listed below that provide invertebrate prey and provide cover such as under logs or stones:
- Woodland;
 - Rough grassland;
 - Scrub;
 - Hedgerows; and
 - Waste ground.
- 4.2.4** Terrestrial habitats of highest value to GCNs are those rich in invertebrate

prey, which provide cover during periods of cold and dry weather, such as under logs or stones for example. Open habitats, such as closely mown grassland, do not provide important habitats for feeding or shelter but can be traversed by GCNs moving between more preferable habitats (English Nature 2001; Langton *et. al.* 2001).

4.3 Risk Assessment

- 4.3.1** A rapid risk assessment of the impacts to GCN was carried out using the Natural England Rapid Risk Assessment Tool. The Tool takes into account the impacts of the development on GCN and determines the likelihood of effects on populations in the absence of mitigation.

4.4 Survey Constraints

- 4.4.1** There were no significant survey limitations because GCN habitat assessments and a HSI for GCN can be carried out at any time of year under any weather conditions and the application site was fully accessible. The eDNA sampling was undertaken during the time of year which is acceptable by Natural England i.e. samples must be collected between April 15th and June 30th.

5 SURVEY FINDINGS

5.1 Desk Study

5.1.1 The data search undertaken by TVERC revealed no GCN records for the application site. The GCN records returned inside a 1km radius of the application site within the last 10 years are detailed in **Table 1** below.

Table 1. GCN records within a 1km radius of the application site (Source: TVERC).

Location	Grid reference	No. of records	Types of record	Most recent record	Distance from site boundary (m)
Unknown pond (Pond 2 in Figure 1)	SU8057771058	1	eDNA	07/06/2018	40m NW
Bill Hill Park Pond (Pond 5 in Figure 1)	SU806712	3	Field record – juvenile	2011	180m N
Ashridge Meadows (SANG) - Pond	SU80867027	1	eDNA	01/06/2021	640m SW
Ashridge Manor, Forest Rd, Binfield: Pond	SU8136770841	1	eDNA	08/05/2018	700m E
Ashridge Manor, Forest Rd, Binfield: Pond	SU8143570886	1	eDNA	08/05/2018	755m E

5.1.2 No European Protected Species (EPS) mitigation licences have been granted for GCN within a 1km radius of the application site. However, there have been two GCN Class Survey Licence Returns within a 1km radius of the site, as detailed in **Table 2** below.

Table 2. GCN Survey Class Licence Returns within a 1km radius of the site boundary (Source: DEFRA).

Grid reference	Survey date	GCN presence	Distance (m)
SU805710	01/05/2016	Confirmed	40m NW (Pond 2 in Figure 1)
SU805712	01/05/2016	Confirmed	180m N (Pond 5 in Figure 1)

5.1.3 MAGIC OS mapping revealed that there are eight ponds that could potentially support breeding GCNs: on-site (Pond 1); 40m northwest (Pond 2), 105m south (Pond 3); 170m east (Pond 4); 180m north (Pond 5); 385 m

north east (Pond 6); 390m north (Pond 7); and 430m east (Pond 8) – as illustrated in **Figure 1** below.



Figure 1. Pond Location Plan.

- 5.1.4** The TVERC data returned GCN records in Pond 2 and Pond 5 from surveys undertaken in 2018, which corresponds to two of the GCN Class Survey Licence Returns. There are no records of GCN presence in Ponds 1, 3, 4, 6, 7 or 8 within the last 10 years.
- 5.1.5** The application site falls within a 'Red' GCN Habitat Zone (see NatureSpace Impact Risk Maps) – these zones contain suitable habitat and are the most important areas for GCN (except areas that are nationally important sites designated for GCNs).

5.2 Field Survey

5.2.1 The findings of the visual inspection of the site are described with photographs as follows:

5.2.2 The application site was a residential detached house with a large walled garden towards the south and a meadow towards the front northern side (**Photographs 1 - 4**).



Photograph 1. House viewed from northeast.



Photograph 2. House viewed from south.



Photograph 3. Walled garden viewing south.



Photograph 4. Meadow viewing north.

5.2.3 A garage was present to the front western side of the house with a gravel driveway and access track (**Photograph 5**). A small patio footpath of paving slabs was present around the southern side of the house. A glass greenhouse and brick outbuilding were present in the rear garden (**Photograph 6**).



Photograph 5. Garage and gravel driveway to the front of the house.



Photograph 6. Glass green house to the rear of the house.

5.2.4 A box hedge led down to a small ornamental pond (**Photographs 7 & 8**).



Photograph 7. Box hedge in the rear garden.



Photograph 8. Ornamental pond (Pond 1 in figure 1).

5.2.5 The garden was laid to lawn with formal and informal areas, scattered mature trees and shrubs, planted beds and raised unmanaged vegetable plots, and a brick wall demarcating the boundary with the neighbouring garden and meadow (**Photographs 9 - 12**). A pile of bricks was present along the western side of the rear garden and amongst the centre of the garden.



Photograph 9. Scattered trees within the rear garden.



Photograph 10. Planted beds in the front garden.



Photograph 11. Raised unmanaged vegetable plot by an outbuilding to the east of the house.



Photograph 12. Brick wall along the boundary.

5.2.6 A line of trees was present along the western side of the access track leading down to the house from Forest Road (**Photograph 13**).



Photograph 13. Line of trees along the access road to the north of the house.

- 5.2.7** The lawn had a number of grasses and herbaceous species present including perennial rye grass (*Lolium perenne*), foxtail (*Alopecurus pratensis*), smooth meadow grass (*Poa pratensis*), forget-me-not (*Myosotis* sp.), self-heal (*Prunella vulgaris*), willowherb (*Epilobium* sp.), yarrow (*Achillea millefolium*), dandelion (*Taraxacum officinale* agg), creeping buttercup (*Ranunculus repens*), green alkanet (*Pentaglottis sempervirens*), common ragwort (*Senecio jacobaea*), common daisy (*Bellis perennis*), dove's-foot crane's-bill (*Geranium molle*), herb robert (*Geranium robertianum*), white dead-nettle (*Lamium album*), ribwort plantain (*Plantago lanceolata*), great mullein (*Verbascum thapsus*), daffodil (*Narcissus* sp.) and bluebell (*Hyacinthoides non-scripta*). Additional species present along the walls included ground elder (*Aegopodium podagraria*), hedge garlic (*Alliaria petiolata*), hogweed (*Heracleum sphondylium*), common nettle (*Urtica dioica*), primrose (*Primula vulgaris*), and lords-and-ladies (*Arum maculatum*).
- 5.2.8** Scattered trees and shrubs in the rear garden included oak (*Quercus robur*), ash (*Fraxinus excelsior*), lilac (*Syringa vulgaris*), bay laurel (*Laurus nobilis*), barberry (*Berberis thunbergii*), rose (*Rosa* sp.), bramble (*Rubus fruticosus* agg.), honeysuckle (*Lonicera periclymenum*), Rhododendron (*Rhododendron ponticum*), silk tassel (*Garrya elliptica*), Buddleia (*Buddleja davidii*), *Viburnum*, and hobbleweed (*Viburnum lantanoides*). A mature willow (*Salix* sp.) with dead wood visible was present in the front garden, as well as a bed of currant (*Ribes sanguineum* does) and *Choisya*, and an enclosed walled bed with nettle (*Urtica dioica*) and rose (*Rosa* sp.).
- 5.2.9** A couple of raised brick walled vegetable plots were unmanaged and species present included strawberry (*Fragaria* sp.), common ragwort (*Senecio jacobaea*), bramble (*Rubus fruticosus* agg.), common nettle (*Urtica dioica*), dock (*Rumex* sp.) and willowherb (*Epilobium* sp.).
- 5.2.10** Species present in the uncut meadow to the front northern side of the house

included white dead-nettle (*Lamium album*), meadow grass (*Poa species*), perennial rye grass (*Lolium perenne*), and foxtail (*Alopecurus pratensis*).

- 5.2.11** Species present within the line of trees to the west of the driveway included laurel (*Laurus sp.*), oak (*Quercus robur*), yew (*Taxus baccata*), field maple (*Acer campestre*), horse chestnut (*Aesculus hippocastanum*), holly (*Ilex aquifolium*), *Prunus* species, white dead-nettle (*Lamium album*), greater periwinkle (*Vinca major*), bramble (*Rubus fruticosus* agg.), green alkanet (*Pentaglottis sempervirens*), and lords-and-ladies (*Arum maculatum*). Deadwood was present on the floor beneath the trees.

Habitat Suitability Index (HSI)

- 5.2.12** A HSI for the garden pond produced a score between 0.5 and 0.59 and consequently categorised the pond as below average suitability for GCN – see **Table 1** below.

Table 1. Habitat Suitability Index (HSI) for the garden pond.

Category	Description	SI Score
SI ₁ Location	Zone A (optimal)	1
SI ₂ Pond area	Pond with a radius of 3m and approximately 20m ² .	0.05
SI ₃ Pond drying	Lined garden pond. Never dries.	0.9
SI ₄ Water quality	Moderate invertebrate diversity	0.67
SI ₅ Shade	80% shade (boundary shrubs / trees)	0.6
SI ₆ Fowl	Waterfowl absent (pond too small)	1
SI ₇ Fish	Possible but not evident.	0.67
SI ₈ Pond count	Seven waterbodies within 500 m	1
SI ₉ Terrestrial habitat	Garden with shrubs beds, areas of informal grassland, hedges, piles of bricks (habitat with good structure)	1
SI ₁₀ Macrophytes	10% estimate of macrophyte cover – water lily and flag iris present	0.4
HSI Score		0.5868893939

5.3 Risk Assessment

- 5.3.1** An eDNA sample of the pond on site came back with a negative result for the presence of GCNs. Based on the assumption that Ponds 2 and 5 support breeding GCN as well as Ponds 3, 4, 6, 7, and 8, the Natural England GCN Rapid Risk Assessment Tool was used to assess the risk of the development proposals adversely affecting GCN. The development footprint is less than 0.1ha and the Tool indicates that the loss of or damage to 0.01ha – 0.1ha of land 100m – 250m from a breeding pond and great than 250 m from any breeding pond is highly unlikely to result in an offence – see **Figure 2** below. (N.B. Although the site boundary is only 40m from the pond the main house to be impacted by the development is over 100m from the closest pond).

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	0.01 - 01 ha lost or damaged	0.01
Land >250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.001
Individual great crested newts	No effect	0
	Maximum:	0.01
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

Guidance on risk assessment result categories

"Green: offence highly unlikely" indicates that the development activities are of such a type, scale and location that it is highly unlikely any offence would be committed should the development proceed. Therefore, no licence would be required. However, bearing in mind that this is a generic assessment, you should carefully examine your specific plans to ensure this is a sound conclusion, and take precautions (see **Non-licensed avoidance measures tool**) to avoid offences if appropriate. It is likely that any residual offences would have negligible impact on conservation status, and enforcement of such breaches is unlikely to be in the public interest.

Figure 2. Natural England GCN Rapid Risk Assessment Tool.

6 DISCUSSION AND RECOMMENDATIONS

6.1 Assessment of Habitat Suitability

6.1.1 The desk study revealed two ponds with GCN presence (Ponds 2 and 5) and six ponds that could potentially support breeding GCNs (Ponds 1, 3, 4, 6, 7 & 8) within 500m of the application site boundary. Pond 1 was on-site, Pond 2 was 40m from the application site boundary and Pond 5 was 180m from the application site boundary and thus the site falls inside the core range of terrestrial habitat for these ponds if GCN are present.

6.1.2 The application site falls within a 'Red' GCN Habitat Zone – these zones contain suitable habitat and are the most important areas for GCN (except areas that are nationally important sites designated for GCNs). The walkover survey found one waterbody in the application site – Pond 1, however it was a small ornamental pond which was confirmed to be negative for the presence of GCNs from an eDNA sample taken. The site was a residential detached house with outbuildings, garden habitats, including a formal and informal lawns, scattered trees and shrubs, and plant beds. The garden offers terrestrial habitat of moderate value to GCN for foraging and shelter. .

6.1.3 The HSI of the garden pond on site was below average suitability for GCN and there was no evidence of GCN presence during the visual assessment. Furthermore the eDNA test revealed a negative result for GCN presence in the pond.

6.2 Impact Assessment and Required Actions

6.2.1 The development proposals involve major works to the existing dwelling including potential extensions with a footprint of less than 0.1ha. The development footprint is small and will impact existing building footprint and areas of gravel and patio around the house (i.e. terrestrial habitats of negligible value to GCN).

6.2.2 The Natural England GCN Rapid Risk Assessment Tool was used to assess the risk of the development proposals adversely affecting GCN and it was

considered highly unlikely that the proposed works would result in an offence – see **Figure 2** above.

- 6.2.3** In line with the guidance contained in the Tool and the impact assessment presented above, the nature and scale of the proposed development is highly unlikely to breach legislation protecting GCN or their habitats. However, in the absence of mitigation there is a risk that individual GCNs could potentially be injured and/or killed during the construction activities if traversing across the habitats on site. To avoid this, it is recommended that reasonable avoidance measures to minimise the risk of killing individual GCNs are implemented during the construction phase – as set out in **Section 6.3** below.

6.3 Reasonable Avoidance Measures

- 6.3.1** It is likely that any residual offences would have negligible impact on the conservation status of a local GCN population and the enforcement of such breaches is unlikely to be in the public interest. Therefore it is considered that a European Protected Species (EPS) mitigation licence or a District Level Licence would not be required to allow the works to proceed lawfully, but the following reasonable avoidance measures should be adopted to minimise the extremely low risk of harming individual GCNs:

Pre-commencement of construction activities

- A suitably licensed ecologist will provide a 'toolbox' talk briefing the contractors working on site about GCN identification, what to do if GCN are found and the reasonable avoidance measures to be adopted;
- Any removal of compost heaps, bricks, dead wood, leaf litter and overgrown flowerbeds will be carefully searched by hand by a suitably licensed ecologist if required; and
- The formal mowing of the lawn should be maintained prior to the commencement of site work to minimise the likelihood of GCN of being present during excavations.

During construction activities

- Any stored building materials or waste, such as bricks or debris etc., that might offer shelter for GCN will be kept raised off the ground on pallets or on existing hard standing, and efforts should be made to process and remove from site as soon as possible;

- Excavation works will be avoided after dusk and any open excavations or trenches will be backfilled (after a check for GCN presence) or left with escape ramps to prevent GCN from becoming trapped; and
- If any extensive groundworks are required, a destructive search using a machine with a toothed bucket will be undertaken in the presence of a suitably licensed ecologist.

6.3.2 In the unlikely event that a GCN is found during the course of construction, works will stop immediately and a licensed ecologist will be called onto site to ensure the GCN is not harmed and provide further advice on how to proceed; work will recommence only once further written advice has been received.

6.3.3 The value of the application site to wildlife could be enhanced by adding features suitable for sheltering and hibernating GCN, such as creating rockeries. Areas of grassland which are allowed to grow tall and diversify should be retained within the garden.

7 REFERENCES

English Nature (2001). *Great crested newt mitigation guidelines*. English Nature, Peterborough.

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