



GREAT CRESTED NEWT EDNA SURVEY REPORT

Client: Craig Mortimer-Zhika

Site: Highwood House, Arborfield

07.05.2024

Version 001



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Report	This report remains valid for 12 to 18 months from date of issue. The report, conclusions and recommendations are valid for current development plans only. Should this change, the report should be reviewed and, if necessary, further survey work and desk study review undertaken.		
Survey Data	Survey data are valid for 12 to 18 months from the date the survey was undertaken.		

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The information which we have prepared and provided is true and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct.

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1. Summary

Site Details
- Site Address: Highwood House, Church Lane, Arborfield, Reading, RG2 9JA. - OS grid reference: SU 7551 6764. - Approximate Area of Site: 10,000 m² (1.0 ha). - Approximate Area to be Affected by Development: 400 m² (0.04 ha).
Scope of Works
The brief was to undertake eDNA analysis for great crested newts, to determine the presence/absence of great crested newts (GCN) of one pond located on site, as recommended in aLyne Ecology Ltd.'s report (aLyne Ecology Ltd., 2024). The location of the pond surveyed is shown in Figure 1.
Development Proposals
The development proposals are for the construction of new single storey outbuilding of a similar construction to the existing buildings on site, which will serve as a pool house and gym. The proposed outbuilding will be situated adjacent to the existing main house and garage. Modified grassland, other developed land, and artificial unvegetated, unsealed surface habitats will be lost to facilitate the development.
Key Ecological Constraints and Opportunities
- The great crested newt and its habitats are fully protected under the Wildlife and Countryside Act, 1981 (as amended) (HM Government, 1981), and the Conservation of Habitats and Species Regulations 2017 (as amended) (HM Government, 2017). - eDNA analysis for great crested newts of one pond was carried out on 16th April 2024. - The results of the great crested newt eDNA analysis the pond are: 2/12 (GCN positive), i.e., great crested newt DNA was confirmed to be present (Sample ID: ADAS-2551).
Further Mitigation / Survey Requirements
- Further survey to assess the population status of GCNs in Pond 1 has been assessed as not possible because the pond is small in size (140 m²) and lined with pond liner meaning that using bottle traps would not be possible. Also, netting has been assessed as not possible because the pond is stocked with fish, which could cause distress to the fish, and there is no emergent aquatic vegetation to carry out egg searches. Therefore, in accordance with Natural England's Standing Advice on GCNs (Natural England, 2022), a Precautionary Method Statement for GCNs is recommended. The Precautionary Method Statement will detail the locations of proposed works, the impacts of the works, proposed receptor areas, habitat compensation areas, mitigation areas, phasing of works, a Habitat Maintenance and Management Plan, and safeguard of receptor sites. - Pond 1 should be retained and enhanced for amphibians.

2. Introduction

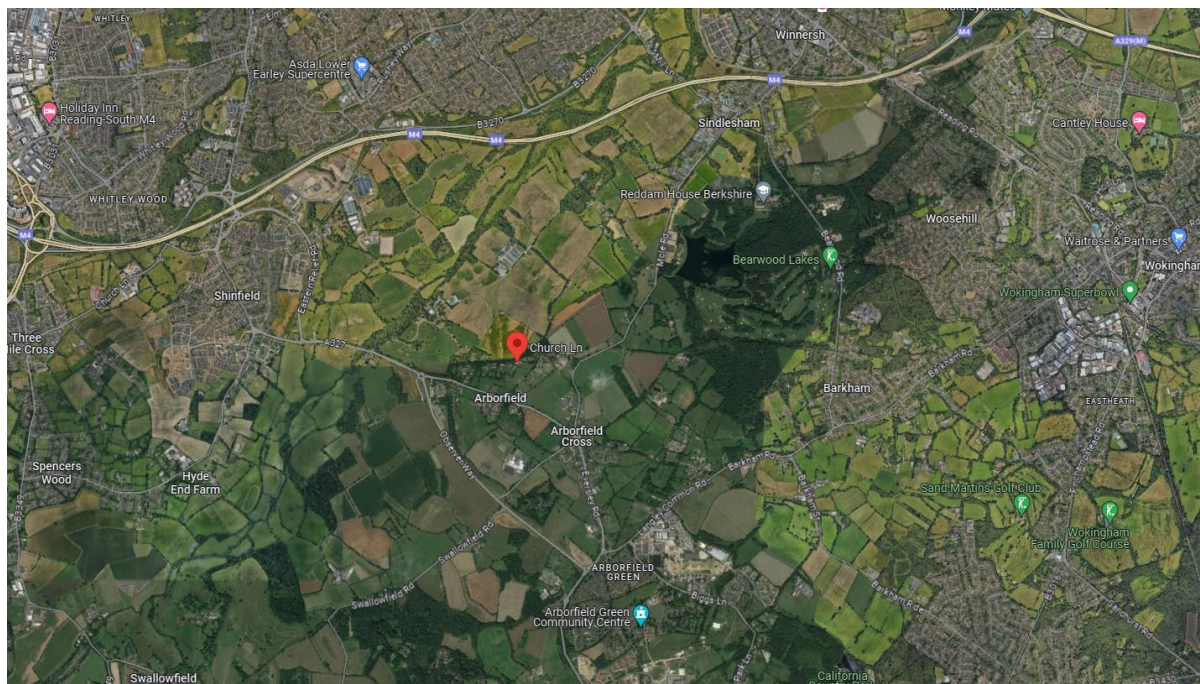
2.1 Site Details

Table 1 provides details on the site, intended as a summary of key features. Table 1 and Table 3 have been derived from Magic (Natural England, 2013).

Table 1. Site Details

Site Name	Highwood House, Arborfield
Site Address	Highwood House, Church Lane, Arborfield, Reading, RG2 9JA
OS Grid Reference	SU 7551 6764
Approximate Total Area	1 ha (10,000 m ²)
Approximate Area to be Affected by Development	400 m ² (0.04 ha)
Landowner and Local Authority	Craig Mortimer-Zhika, Wokingham Borough Council
Geology and Soils	Loamy soils with naturally high groundwater
Hydrology	Naturally wet
Nature Conservation Designations	None on site
Other Designations	None on site
The Woodland Trust Ancient and Notable Tree Inventory	None on site
Biodiversity Opportunity Area	None on site
National Habitat Network	None on site
Current Land Use	Occupied dwelling

An aerial plan showing the location of the site is provided below.



Site Location (© Google Earth Pro, accessed 12th April 2024).

2.2 Description of Ponds

Table 2 provides a description of the pond.

Table 2. Pond Descriptions

Pond Reference	Description of Ponds	Description of Surrounding Terrestrial Habitats (within 250m)
P1	This is small ornamental pond, measuring approximately 140 m ² . Both native and non-native species are present. Common species include pointed spear-moss (<i>Calliergonella cuspidata</i>), yellow flag iris (<i>Iris pseudacorus</i>), and yucca (<i>Yucca</i> sp.). It is surrounded by a small fence. Fish are present in the pond.	Surrounding habitats include those on site to the north, east, west and south of the pond. These consist of modified grassland, other developed land, and buildings. The site is surrounded by dwellings with associated garden space to the east, south, and west, and agricultural fields to the north. There is a parcel of deciduous woodland located approximately 200 m from Pond 1. There is a pond located approximately 115 m from Pond 1.

2.3 Site Context

Table 3 provides details on the context of the site in terms of habitats, land use and connectivity to the wider landscape.

Table 3. Site Context

Surrounding Habitats and Land Use	Rural location, comprising a mixture of arable and grazed fields, hedgerows, and woodland. Numerous waterbodies are located within 1 km of the site, including one on site. The wider landscape is characterised by scattered residential and light industrial buildings, farmland, and further areas of woodland
Urban Context / Locality	The site is located off Church Lane on the northern edge of Arborfield village, which is located between Arborfield Cross and Shinfield. The M4 motorway is located approximately 1.8 km to the north of the site
Connectivity to Wider Landscape	The site had good connectivity via existing lines of trees to areas of woodland to the north-east and north-west, and the River Loddon located approximately 850 m to the north-west, which are likely to be key foraging habitat for bats
Priority Habitats within 1 km	• Ponds • Deciduous woodland • Traditional orchard • River/stream • Coastal and floodplain grazing marsh • Woodpasture and parkland
Ancient Woodland within 1 km	At least six areas, the nearest being approximately 135 m to the northwest of the site, one at 296 m to the north-east of site and one approximately 403 m to the south-west of site.
Statutory Designated Sites within 1 km	None
European Designated Sites within 5 km	Thames Basin Heaths Special Protection Area (SPA), approximately 4.3 km to the south of the site.
EPSLs within 2 km	Fourteen granted EPSLs for roosting bats including: • Destruction of a resting place for common pipistrelles (<i>Pipistrellus pipistrellus</i>), soprano pipistrelles (<i>Pipistrellus pygmaeus</i>), and brown long-eared bats (<i>Plecotus auritus</i>), for the main house on site. • Destruction of a resting place for common pipistrelles and soprano pipistrelles, located approximately 1 km to the south. • Damage to a breeding site for Daubenton's (<i>Myotis daubentonii</i>) and soprano pipistrelles, located approximately 1.8 km to the north.

	• Five destructions of resting places for common pipistrelles, soprano pipistrelles, and brown long-eared bats, located approximately 1.8 km to the north-west. • Destruction of a resting place for common pipistrelles and brown long-eared bats, located approximately 2 km to the north-west. • Five destructions of resting places for common pipistrelles, soprano pipistrelles, Daubenton's, noctules (<i>Nyctalus noctula</i>), and brown long-eared bats, located approximately 2 km to the north-east.
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2.4 Proposed Development

The development proposals are for the construction of new single storey outbuilding of a similar construction to the existing buildings on site, which will serve as a pool house and gym. The proposed outbuilding will be situated adjacent to the existing main house and garage. Modified grassland, other developed land, and artificial unvegetated, unsealed surface habitats will be lost to facilitate the development.

2.5 Brief and Objectives

The brief was to undertake eDNA analysis for GCNs, to determine the presence/absence of GCNs of one pond, with potential to support GCNs located at Highwood House, Arborfield, as recommended in aLyne Ecology Ltd.'s report (aLyne Ecology Ltd., 2024). The location of the pond surveyed is shown in Figure 1.

3. Relevant Legislation and Planning Policy

GCNs and their habitats are fully protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) (HM Government, 1981). GCNs are also included in Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended) (HM Government, 2017), which defines "European protected species of animals" and are afforded further protection through the Countryside and Rights of Way (CRoW) Act, 2000 (HM Government, 2000).

The combined legislation makes it illegal to:

- Intentionally kill, injure, or capture great crested newts.
- Deliberately disturb great crested newts.
- Damage, destroy great crested newt habitat.

Furthermore, the Natural Environment and Rural Communities Act (NERC Act) 2006 (HM Government, 2006), requires due consideration be given to biodiversity and its potential enhancement when considering proposed developments. The great crested newt is a Priority Species listed under Section 41 of the NERC Act (HM Government, 2006).

The National Planning Policy Framework, 2023 (NPPF) (HM Government, 2023) sets out government policy on biodiversity in planning decisions. Under the NPPF, the presence of a protected species is a material consideration when a planning authority is considering a development proposal.

4. Methods

4.1 eDNA Analysis

The pond was visited on 16th April 2024. The collection of water samples was undertaken by Martin Roche BSc (Hons) ACIEEM (NE Great Crested Newt Class Licence: WML-CL08 Licence Number: 2018-33257-CLS-CLS), and Megan Beard BSc (Hons).

Following a set protocol (Biggs, et al., 2014), 20 water samples were collected from around the pond, using a kit provided by a laboratory approved by Natural England (ADAS) (one kit per pond). The samples were then sent to the laboratory for analysis. Figure 1 provides the location of the pond surveyed.

4.2 Survey Limitations

There were no limitations considered to negatively influence the assessment in relation to the following:

- Personal competence, i.e., qualifications, training, skills, understanding, experience.
- Resources (equipment and personnel).
- Time spent surveying.
- Data (e.g., arising from incomplete or inappropriate surveys).
- Timing or seasonal constraints and suboptimal survey periods.
- The site could be fully accessed.

5. Results

The results of the great crested newt eDNA analysis for pond 1 are: 2/12 (GCN positive), i.e., great crested newt DNA was confirmed to be **present** (Sample ID: ADAS-2551).

6. Evaluation

GCN eDNA was detected in Pond 1, confirming the pond provides suitable GCN habitat. High to medium impact on great crested newts and their habitats is expected for groundworks (habitat removal/excavations/habitat manipulation) within 250 m of the pond. Therefore, GCNs have been scoped into the assessment and, measures for avoidance, mitigation, and enhancement have been recommended in Section 7.

7. Recommendations

Further survey for GCNs of Pond 1 has been assessed as not possible for the following reasons:

- The pond is small in size (140 m²) and lined with pond liner meaning that using bottle traps would not be possible without damaging the pond liner.
- Netting will cause distress to the fish present in the pond and be disturbing to the vegetation and sediment.
- There is no emergent aquatic vegetation to carry out egg searches.

Therefore, in accordance with Natural England's Standing Advice on GCNs (Natural England, 2022), a Precautionary Method Statement for GCNs is recommended. The Precautionary Method Statement will detail the locations of proposed works, the impacts of the works, proposed receptor areas, habitat compensation areas, mitigation areas, phasing of works, a Habitat Maintenance and Management Plan, and safeguard of receptor sites.

Pond 1 should be retained and enhanced for amphibians.

8. References

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9. Figures

9.1 Figure 1: Location of Pond

