

Great Crested Newt eDNA Sampling

Survey site:

The Kennels, Spye Park, Chippenham, Wilshire, SN15 2PR

Client:

The Meadowbrook Trust

Survey date:

20th April 2026

Project:

This report is prepared to inform a planning application with Wiltshire Council. This proposal can be described as 'The existing kennels building and stables will be sensitively renovated to form two guest houses. The adjacent puppy kennels will be repurposed to accommodate wellness facilities including a steam room, sauna and cold plunge. A landscaped courtyard will be introduced between the three buildings, creating an outdoor space that connects the accommodation and wellness facilities'.

Survey methodology and legislation can be found in Appendix 6.

The site survey was undertaken by Kelly Clarke (Dip H.E), Senior Consultant Ecologist (Natural England Protected Species Licence Numbers: [Bats 2018-33540-CLS-CLS])					
Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
20/04/2026	13	54	10	6	None

Ecological Survey Factor	Detailed using desk study and site survey (carried out under good weather conditions). Any specific limitations noted within relevant section. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.
Conclusion, Impact or Recommendations	
See habitat map in appendix 1, location plan in appendix 2, proposal plans in appendix 3, photos in appendix 4 and eDNA results in appendix 5).	
<i>Scope of report</i>	This report describes the suitability of the habitats on the site and any surveyed ponds for GCN and identifies the presence or absence of GCN in these ponds. It identifies possible constraints in relation to GCN as a result of the proposed development and summarises the requirements for further surveys and mitigation measures to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation. To achieve this, the following steps have been taken: • A field survey has been undertaken, including an assessment of the suitability of the site and any ponds within an influencing distance of the site for GCN. • An outline of potential impacts on GCN has been provided, based on the proposed development. • Recommendations for further surveys and mitigation have been made, along with advice on the requirements for a European Protected Species Licence (EPSL) for GCN if appropriate. Opportunities for the enhancement of the site for GCN have been set out.
<i>Site location and context</i>	The site is located at National Grid Reference ST 95097 66932 and has an area of approximately 0.33ha comprising four buildings, six scattered trees, developed land; sealed surface, artificial unvegetated, unsealed surface, bramble scrub and modified grassland.

	Priority habitats woodpasture and parkland, lowland mixed deciduous woodland and ancient woodland bound the site on all sides. The site is located in a rural setting within the grounds of Spye Park House. The wider landscape is largely rural and is characterised by agricultural land and pockets of woodland, interspersed by small lanes. A review of historic maps indicates the landscape has remained largely unchanged since the late 1800s. The area is hydrologically active with two drainage ditches located to the north of the site boundary and further ditches and ponds within 500m, which are likely to enhance the local area for amphibians, bats and birds. The site is situated on slightly acid loamy and clayey soils with impeded drainage with an underlying bedrock geology of sandstone.
<i>EPSL and survey data</i>	A review of MAGIC database found no granted EPSL for great crested newts (GCN) within 2km of the site. A check was also completed for great crested newt class survey license returns and historic pond surveys. No records were identified within 2 km.
<i>Field survey results</i>	Pond descriptions No ponds are located on or adjacent to the site. A review of aerial imagery shows one pond within 250 m of the site and a further four ponds within 500 m. Ponds P1 and P2 are located approximately 244 m and 401 m to the west of the site, respectively. The ponds appear to be surrounded by a small area of unmanaged grassland within a larger field of mostly managed grassland. A small lane is present between the ponds and the site; however, this is not considered to be a significant barrier to dispersal. Pond P3 is located approximately 342 m northwest and is likely to be an ornamental waterbody. The pond appears to be surrounded by managed grassland. Several small lanes are present between the pond and the site; however, this is not considered to be a significant barrier to dispersal. Ponds P4 and P5 are located approximately 435 m and 452 m east of the site. These ponds are located within a large pocket of woodland, which is well connected to the north of the site. Two ditches are located to the north of the site. The first ditch runs along the edge of the woodland and was observed to contain standing water with submerged, emergent and floating vegetation, which may provide suitable conditions for amphibian breeding.

Additionally, a small rubble pile was observed within the ditch, which could support sheltering and hibernation. The second ditch is located behind B3 and did not contain any water at the time of the survey, making it largely unsuitable as breeding habitat.

The first ditch (D1), as described above, was subject to further survey. The second ditch (D2) was not surveyed further as it was observed to be dry at the time of assessment. The surrounding ponds were not subject to further survey due to their distance from the site.

The nearest pond is located approximately 244 m to the west of the site. Should great crested newts (GCN) be present within this pond, the proposed development would be considered to pose a low risk. Based on the Natural England Rapid Risk Assessment (2015), the development generates a 'green' risk score, defined as 'offence highly unlikely'.

Table 1: Surveyed Waterbodies.

Ref	Distance from Site	Description	Photograph
D1	~16m north	The ditch runs parallel to the woodland, separating the woodland and area of other neutral grassland for approximately 71 m. At the time of the survey, the ditch contained approximately 20 cm of standing water. Duckweed covered approximately 10% of the water surface, and the water appeared dark brown in colour, likely due to suspended organic matter. Submerged, emergent and floating vegetation were observed throughout the ditch. A pile of rubble was also observed in the ditch to the northeast of the site. Species present within this habitat include great horsetail (<i>Equisetum telmateia</i>), common nettle (<i>Urtica dioica</i>), pendulous sedge (<i>Carex pendula</i>), cleavers (<i>Galium aparine</i>), willow herb (<i>Epilobium</i> spp.) and daffodil (<i>Narcissus pseudonarcissus</i> subsp. <i>pseudonarcissus</i>).	

Habitat Suitability Index (HSI) Assessment

Where possible, waterbodies were assessed for their suitability to support GCN using the Habitat Suitability Index (HSI) Assessment Methodology (Oldham et al, 2000).

HSI is a standard measure of calculating the suitability of a pond to support breeding great crested newts, based on an assessment of 10 characteristics (indices), including size, shading, depth and vegetation profile. The assessment generates a number between 0 and 1 for each of the indices which are combined to provide an overall assessment of a pond's suitability to support GCN on a categorical scale (Table 2). The assessment has not been designed for or tested on other waterbodies such as ditches. HSI assessment results are provided in Table 3 below.

Table 2: HSI Suitability Scores

HSI Score	Suitability	Predicted GCN Occupancy of Ponds in each Category
<0.5	Poor	3%
0.5 to 0.59	Below Average	20%
0.6 to 0.69	Average	55%
0.7 to 0.79	Good	79%
>0.8	Excellent	93%

Table 3: HSI Assessment Results Ditch D1.

HSI Index	HSI Index Parameter	HSI Score
1 – Location	Zone A	1.0
2 – Pond Area	~100m ²	0.1
3 – Pond Drying	Rarely dries	1.0
4 – Water Quality	Poor	0.33
5 – Shade	10%	1.0
6 – Waterfowl	Absent	1.0
7 – Fish	Absent	1.0

8 – waterbody count	10	1.0
9 – Terrestrial Habitat	Moderate	1.0
10 – Macrophytes	70%	1.0
TOTAL	-	0.71
CATEGORY	-	Good

eDNA Sampling

Sample kits and analysis was provided by SureScreen. Sampling followed the relevant sections of the method set out in the DEFRA funded study endorsed by Natural England (Biggs et al 2014). In summary the sampling protocol is as follows:

- 20 samples were taken from around the entire perimeter of the waterbody.
- The surveyor stayed out of the water while taking the samples (extension poles were used in situations where open/sufficiently deep water was at a distance from the dry banks.
- Survey locations were distributed around the pond perimeter, but micro-siting was used to select locations most likely to be used by GCN.
- At each sample location the water column was stirred prior to taking the sample, but care was taken to avoid disturbing the sediment on the base of the pond.
- Once all 20 samples were taken, 15ml of the total sample were pipetted into each of the 6 sampling tubes, whilst ensuring that the water in the sample bag was mixed before taking each 15ml sample and that only one sample tube was opened at any one time.
- At all times the surveyor ensured that the risk of contaminating the sampling equipment was minimised by avoiding the placement of the ladle or pipette on the ground or on any otherwise potentially contaminated surfaces and by changing gloves between the initial sampling stage and the pipetting stages of the method.

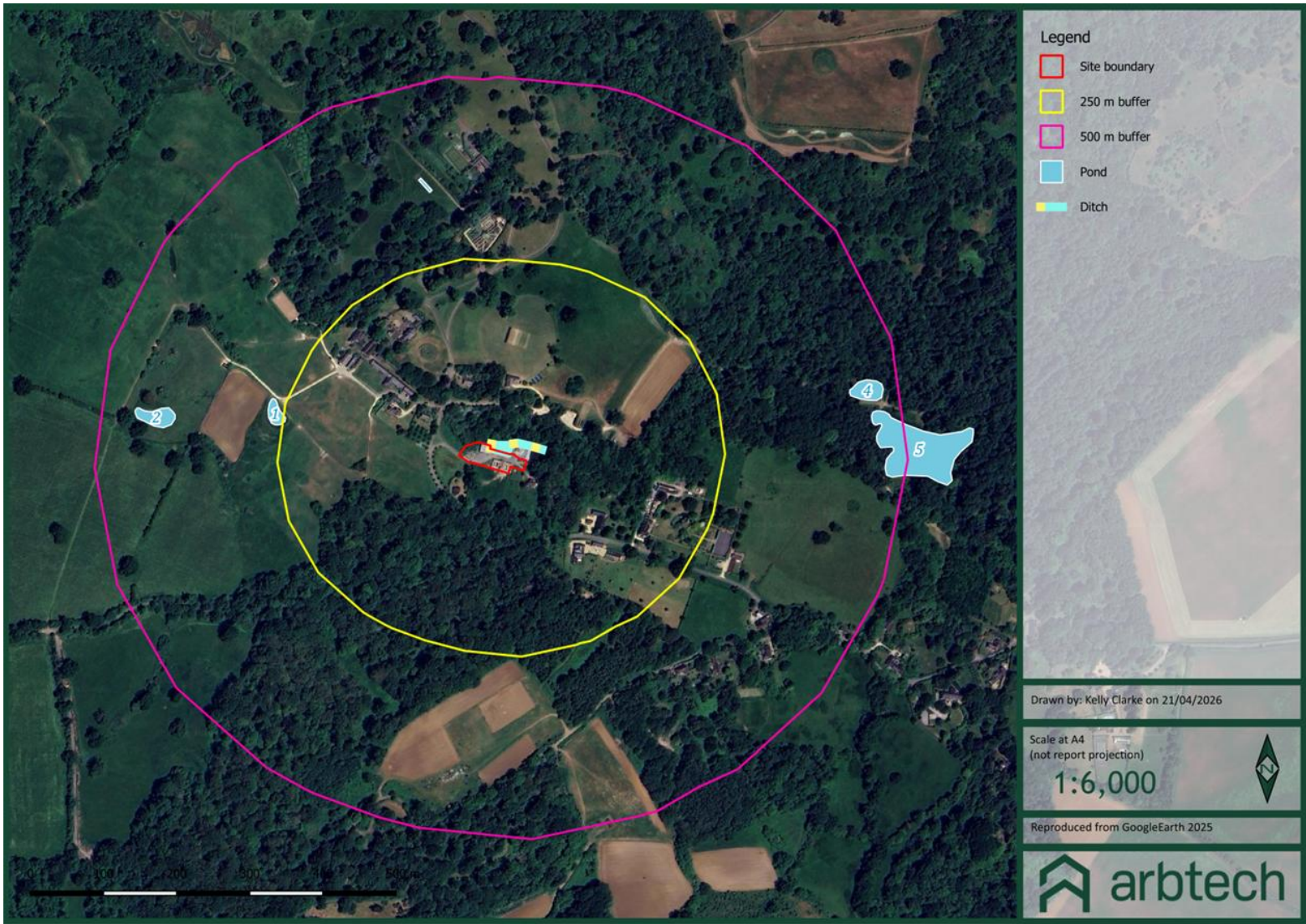
Samples were sent to SureScreen for analysis.

Full eDNA results are provided in Table 4. The SureScreen lab results are included in Appendix 5.

	<i>Table 4: eDNA Survey Results</i> <table border="1"> <tr> <th>Pond Ref</th><th>eDNA Result</th></tr> <tr> <td>1</td><td>Positive (1/12)</td></tr> </table> Terrestrial Habitat Suitability The habitats present within the site, including bramble scrub are likely to provide foraging, commuting and sheltering opportunities for amphibians. Areas of developed land, including buildings, hardstanding and gravel surfaces, together with the well-managed areas of other modified grassland, are considered to be suboptimal for amphibians due to their limited structural diversity and lack of suitable refugia. Adjacent to the northern boundary is a large area of priority habitat comprising ancient woodland, deciduous woodland and wood pasture and parkland, which is likely to be of elevated ecological value for local amphibian populations. This habitat may provide terrestrial sheltering, foraging and dispersal opportunities. As such, the presence of amphibians within the site cannot be ruled out Furthermore, the site lies within the Amber Impact Risk Zone for Great Crested Newt (GCN). Impact Risk Zones are derived from species distribution modelling, which predicts the potential presence of GCN based on habitat suitability and known records. The Red Impact Risk Zone indicates highly suitable habitat and a high likelihood of GCN occurrence, whereas the Amber zone indicates a moderate likelihood of presence.	Pond Ref	eDNA Result	1	Positive (1/12)
Pond Ref	eDNA Result				
1	Positive (1/12)				
<i>Foreseen Impacts</i>	When georeferencing the proposed development plans over scaled mapping of the site, it is noted that the proposed development is likely to result in the loss of approximately 0.014 ha of bramble scrub, 0.006 ha of modified grassland and 6 small trees, as well as areas of developed land. Due to the confirmed presence of great crested newts in the ditch ~16m north of the site, the rapid risk assessment, published by Natural England (Natural England 2015), produces an Amber risk score, which states: Offence Likely (see Figure 1 below). <i>Figure 1: Natural England Rapid Risk Assessment Result.</i>				

	<table><tr><th>Component</th><th>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)</th><th>Notional offence probability</th></tr><tr><td>Great crested newt breeding pond(s)</td><td>No effect</td><td>0</td></tr><tr><td>Land within 100m of any breeding pond(s)</td><td>0.01 - 0.1 ha lost or damaged</td><td>0.3</td></tr><tr><td>Land 100-250m from any breeding pond(s)</td><td>No effect</td><td>0</td></tr><tr><td>Land >250m from any breeding pond(s)</td><td>No effect</td><td>0</td></tr><tr><td>Individual great crested newts</td><td>No effect</td><td>0</td></tr><tr><td colspan="2"></td><td>Maximum:</td></tr><tr><td colspan="2">Rapid risk assessment result:</td><td>0.3</td></tr><tr><td colspan="2"></td><td>AMBER: OFFENCE LIKELY</td></tr></table>	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	Great crested newt breeding pond(s)	No effect	0	Land within 100m of any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.3	Land 100-250m from any breeding pond(s)	No effect	0	Land >250m from any breeding pond(s)	No effect	0	Individual great crested newts	No effect	0			Maximum:	Rapid risk assessment result:		0.3			AMBER: OFFENCE LIKELY
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Recommendations	A Natural England District Level Licensing (DLL) scheme will be required to legally permit impacts to great crested newt (GCN) terrestrial habitat within the zone of influence of a confirmed GCN breeding pond. DLL can be obtained without the need for further survey work and does not require compensatory habitat creation within the site boundary. Instead, the applicant will be required to make a conservation payment to the DLL provider, who will deliver off-site habitat creation and enhancement on their behalf. The cost of the payment is proportionate to the scale of the predicted impacts. In addition, precautionary working methods will be implemented during construction to minimise risks to amphibians. These will include: • A staged approach to vegetation clearance, whereby vegetation will initially be strimmed to approximately 15 cm and left overnight to allow amphibians to disperse. Vegetation will then be cut to ground level and maintained as such throughout the construction period to discourage recolonisation. • Any rubble piles will be dismantled by hand, and debris and brash will either be stored on pallets or removed from site to prevent amphibians from utilising these features. • Best practice pollution prevention measures will be implemented to minimise impacts to nearby aquatic habitats. • All chemicals and potential pollutants associated with the development will be stored, handled, and disposed of in accordance with Control of Substances Hazardous to Health Regulations (COSHH). • If common amphibians are encountered within the working area, they will be allowed to disperse naturally. Where individuals are at immediate risk, they will be carefully moved by hand to a suitable, sheltered vegetated area away from works.																											

Appendix 1: Survey map



Appendix 2: Location map





Appendix 4: Photos

Photograph		Description	
			
			

Appendix 5: eDNA results

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Purchase Order: SN15 2PR
Contact: Arbtech
Issue Date: 23.04.2026
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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 00063	The Kennels, Spye Park		Pass	Pass	Positive	1/12

Matters affecting result: none

Reported by: Ruby Fielding

Approved by: Lauryn Jewkes



Appendix 6: Legislation and planning policy

LEGAL PROTECTION

The great crested newt receives full protection under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

This species are also listed on Schedule 5 of the Wildlife and Countryside Act, and they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

NATIONAL PLANNING POLICY

National Planning Policy Framework 2021

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works likely to affect the breeding sites or resting places of great crested newts protected. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation, but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

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