

Environmental DNA (eDNA) Survey Results for Great Crested Newt (GCN)

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Stand Golf Club

Bury

Greater Manchester

M45 7NL

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Stand Golf Club (Site B), Bury, Greater Manchester, M45 7NL
Environmental DNA (eDNA) Survey Results for Great Crested Newt (GCN)

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1.0 Background & Introduction

- 1.1 As part of a proposed planning application at Stand Golf Club, Tyrer Ecological Consultants carried out a Preliminary Ecological Appraisal (PEA) in January 2025 (see **Appendices I – II**).
- 1.2 The PEA was commissioned by Paddock Johnson; proposals are understood to involve the creation of a residential development, with associated landscaping and access.
- 1.3 As part of the PEA, two ponds were identified within a 250m buffer of the site. Pond 1 (**P1**), though appearing to no longer exist, could not be accessed or assessed during the PEA due to its location within private land. However, Pond 2 (**P2**) was subject to a Habitat Suitability Index (HSI) scoring assessment during the PEA, with it scoring 'Excellent' relative to its suitability to support great crested newt (GCN). As such, it was recommended that an Environmental DNA (eDNA) survey should be undertaken at **P1** (subject to its presence) and **P2** to reasonably ascertain presence / absence of GCN within the two nearby ponds.'
- 1.4 Following the recommendations within the PEA, Tyrer Ecological Consultants Ltd were commissioned by Paddock Johnson to undertake the eDNA survey at **P1 & P2** on April 15th 2025, thus during an optimum time of year (eDNA surveys can be undertaken without temporal limitations at any point between April 15th – June 30th).
- 1.5 This report details the methodology used in accordance with best practice, will outline the survey results, and present conclusions derived from the survey efforts. This report will present any further recommendations, including any avoidance, mitigation or intervention measures required to protect the favourable conservation status of great crested newts, where applicable, and will include suitable information to inform a licence application to Natural England, if necessary.
- 1.6 The eDNA survey aims to determine presence or reasonably conclude absence of great crested newts at the ponds.
- 1.7 If GCN were detected during the survey and / or may be affected by the development proposals, then a Mitigation Licence may be required to proceed with the development.
- 1.8 This report should be read, understood and presented to the local authority in conjunction with **Appendices I – II** (see contents page).
- 1.9 **Figure 1.1** overleaf shows ponds within 250m of the site boundary including the surveyed ponds.

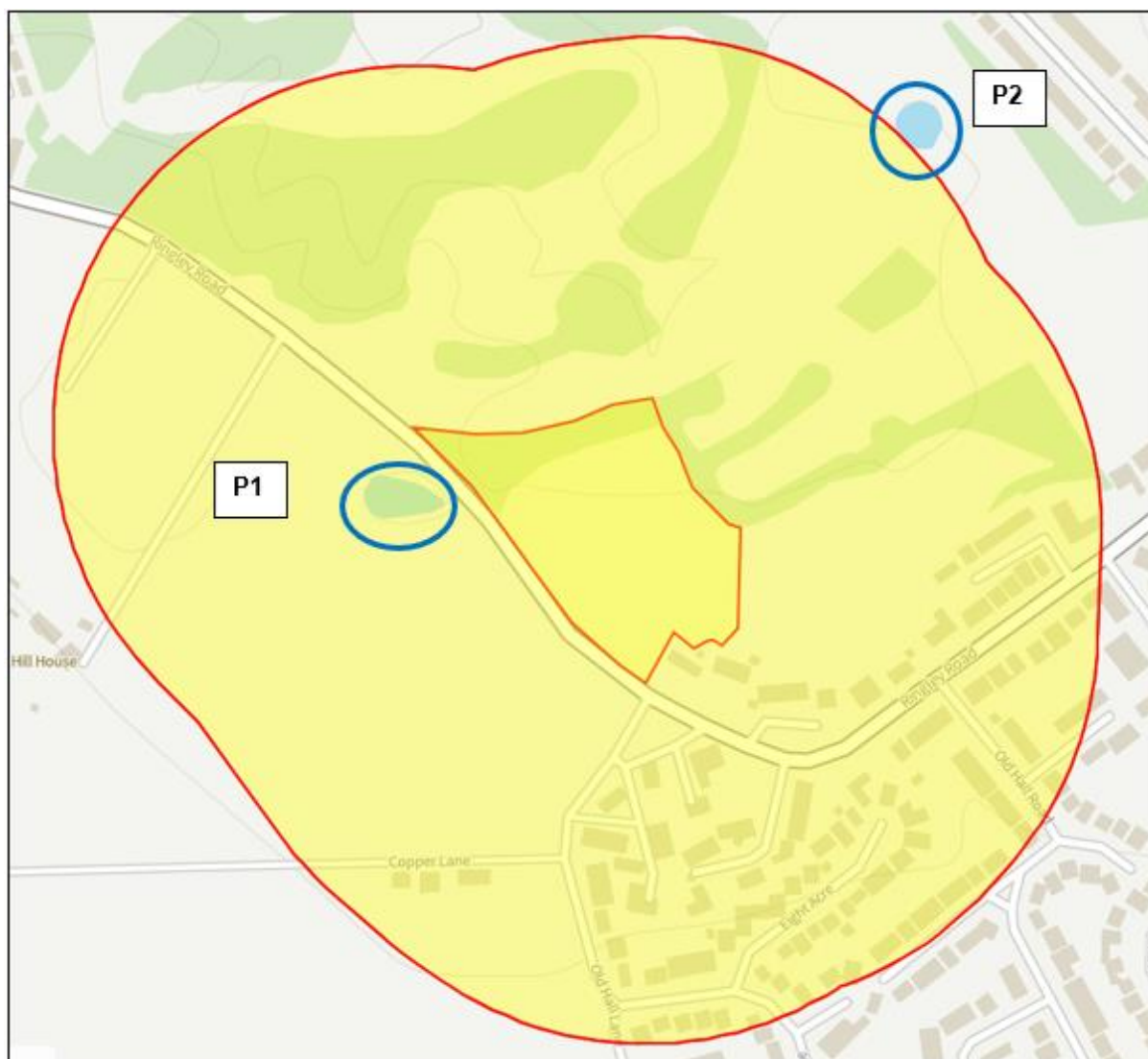


Figure 1.1 – Locations of waterbodies within 250m buffer of the site (© MAGIC Maps 2024)

2.0 Great Crested Newt (GCN) – Legislation & Policy

2.1 GCN are fully protected in all life stages by Schedule 2 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579) and the Wildlife and Countryside Act (1981) (as amended). They are listed a priority species under section 41 (s.41) of the Natural Environment Rural Communities Act 2006 (NERC Act), with the legislation making it a punishable offence to:

- Deliberately, intentionally or recklessly kill, injure or take a GCN,
- Deliberately, intentionally or recklessly take or destroy GCN eggs,
- Possess or control any live or dead specimen, or anything derived from a GCN,
- Deliberately, intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a GCN,
- Deliberately, intentionally or recklessly disturb a GCN while it is occupying a structure or place which it uses for that purpose

2.2 GCN are also protected by the Protection of Animals Act (1911), which prohibits any acts of cruelty or mistreatment.

2.3 In summary, GCN are protected from disturbance, killing, injuring or possession at any life stage, whilst confirmed breeding ponds and resting places are afforded the same protection once identified. Habitat for this species is protected when within certain range of a breeding pond. This places an obligation on local authorities to fully assess the impacts of development on this species prior to determining a planning application.

2.4 GCN populations have declined within the UK over recent years due to destruction and fragmentation of breeding ponds and terrestrial habitat. They spend a high percentage of their adult life in terrestrial habitat such as woodland, and shelter in environments with piles of rubble, log piles, tree roots, miscellaneous other for safety, refuge and hibernation. In Greater Manchester, GCN are fairly widespread and can be found where favourable habitat coincides with connectivity to breeding pools.

NB: *Research presented by Natural England provides evidence that GCN are most likely to use terrestrial habitat within 100 metres of their breeding ponds, whilst the Great Crested Newt Method Statement for EPSML (Natural England) describes terrestrial habitat zones - the 50 metres range of any GCN pond is the 'Core' habitat zone and the area most likely to support newts in a lifetime; the area between 51-250m is the 'Intermediate' zone and 250m+ is the 'Distant' zone; impacts to these zones, from individual ponds, are considered by the ecologist; both permanent and temporary impacts are taken into account.*

2.5 More common British amphibians, such as common frog (*Rana temporaria*), common toad (*Bufo bufo*), smooth newt (*Triturus vulgaris*) and palmate newt (*Triturus helveticus*) are protected only by Section 9(5) of the Wildlife and Countryside Act 1981 (as amended). This section prohibits sale, barter, exchange, transporting for sale and advertising to sell or to buy.

2.6 The named species are also listed as UK Species of Conservation Concern. Due to general declines in most British amphibian species in recent years, many local authorities require amphibian surveys as a planning condition, or as part of environmental information submitted as part of a planning application, even where the presence of GCN is ruled out. Water bodies that support all five (more common) species of British amphibians in high numbers, may be afforded protection in local plans, as Sites of Importance for Nature Conservation (SINC), or a similar equivalent, for sites of local importance.

Policy

- 2.7 Guidance for Local Authorities: Extract from Office of the Deputy Prime Minister – Circular 06/2005:

“It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision”.

- 2.8 Paragraph 193 of the National Policy Planning Framework (as revised in December 2024) states:

“When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons¹ and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.”

- 2.9 Policy EN6 of The Bury Local Plan relates to the conservation of the natural environment, which states the following:

“The Council will retain, protect and enhance the natural environment of the Borough, particularly in relation to areas of ecological, wildlife and geological importance.

The Council is already committed to protecting the natural environment through its Environmental Principles Statement (approved 1991) and the Bury Wildlife Strategy (approved 1993). In implementing this policy the Council will consult the Greater Manchester Ecology Unit. The Unit will give advice on development proposals and planning applications and also on the comments the Council receives from local ecology groups.”

¹ For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat

3.0 Survey Results

Survey Methodology

- 3.1 An eDNA survey was undertaken on 15th April 2025 as per the recommendations of the Preliminary Ecological Appraisal (PEA) – see **Appendices I – II** for details.
- 3.2 As suspected during the PEA, during this survey **P1** was found to be entirely non-existent, despite regular periods of rainfall in the weeks prior, with the area evidently not holding water for an extended period of time. Based upon this evidence, alongside information gathered during the desk study and field survey of the PEA, **P1** can be considered to be no longer existent in any form, and thus can be scoped out of further assessment. As such, only **P2** was eDNA surveyed.
- 3.3 To carry out the eDNA survey, a total of 20 water samples were taken from the pond to form the basis of a DNA sample. The samples were taken using a sterile ladle and emptied into a sterile self-supporting Whirl-Pak bag. All samples were taken from locations around the margins of each pond in areas which could be utilised by GCN for egg laying or displaying. Once all 20 samples were collected, the sterile self-supporting bag was shaken to mix any DNA across the whole pond sample. A sterile plastic pipette was used to transfer approximately 15.0 ml of the mixed pond sample water into a sterile conical tube. This was undertaken for each of the six sterile conical tubes in the kits. Each sterile conical tube(s) contained 35.0 ml of ethanol to preserve any DNA within the samples. The boxes of six sterile conical tubes were returned within 48 hours at ambient air temperature to the ADAS eDNA testing service for laboratory analysis. eDNA analysis by ADAS was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

Survey Results

- 3.4 See **Table 3.1** below for surveyor credentials, **Table 3.2** for climatic conditions on the date of survey, and **Table 3.3** for survey results and any constraints encountered during the survey effort. **Figure 3.1** shows the eDNA results following assessment of **Pond 2**. The raw data returned by ADAS is also provided as **Appendix II**.

Table 3.1 – Surveyor names / credentials for traditional survey visits as well as the eDNA survey

Name	Description of most relevant credentials
Mr. H. Mulligan Qualifying CIEEM	• Consultant Ecologist with 2 years training and experience, • MBiolSci in Biological Sciences (Zoology), • Accredited agent on the Natural England Great Crested Newt: CL08 Class 1 licence (2022-10604-CL08-GCN) of Mr. D. Burrows Qualifying CIEEM.
Miss. H. McGlynn Qualifying CIEEM	• A Junior Ecologist with a range of experience and currently undergoing extensive training, • Holds a BSc (Hons) in Ecology and Conservation and MSc in Conservation Management (a CIEEM accredited course).

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Table 3.2 – Survey dates, times and weather conditions

Survey Number	Date	Weather Conditions
Survey 1 Pond 2	15/04/2025	Survey time: 0900: Dry, Calm, 100% cloud cover Start temp: 12.0 ° C End temp: 12.0 ° C

Table 3.3 – Summary data from the survey with constraints

Pond 2							
Results							
Great Crested Newt (GCN)	Smooth Newt (SN)	Palmate Newt (PN)	SN / PN Female / Juvenile	GCN Egg(s)	Common Toad (CT)	Common Frog (CF)	GCN Present / Absent
0	0	0	0	0	0	0	Absent
Constraints / Incidental Observations							
The surveyors were able to access 100% of the margin of the pond, and there were no constraints encountered.							

Sample ID: ADAS-6543	Condition on Receipt: Good	Volume: Passed
Client Identifier: P1, SD79380582	Description: pond water samples in preservative	
Date of Receipt: 17/04/2025	Material Tested: eDNA from pond water samples	

Determinant	Result	Method	Date of Analysis
Inhibition Control*	2 of 2	Real Time PCR	23/04/2025
Degradation Control [§]	Within Limits	Real Time PCR	23/04/2025
Great Crested Newt*	0 of 12 (GCN negative)	Real Time PCR	23/04/2025
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10 ⁻⁴ ng/μL)*	4 of 4	Real Time PCR	As above for GCN

Report Prepared by:	Dr Helen Rees	Report Issued by:	Dr Ben Maddison
Signed:		Signed:	
Position:	Director: Biotechnology	Position:	MD: Biotechnology
Date of preparation:	23/04/2025	Date of issue:	23/04/2025

Figure 3.1 – Pond 2 eDNA results – ‘Negative’

4.0 Impact Assessment

- 4.1 The DNA analysis of **P2** within Stand Golf Club found no evidence of GCN at the pond, with '**Negative**' results returned from the laboratory for the pond.
- 4.2 Given the results derived from the survey, along with the only other pond within 250m (**P1**) being non-existent, great crested newts have been reasonably determined as absent from the ponds, and thus absent from the site, and as such do not form an ecological constraint against the proposals for which the applicant seeks consent.

5.0 Conclusions & Recommendations

- 5.1 No impacts are anticipated in relation to GCN as a result of the proposed works, therefore no further surveys, licensing or mitigation for this species is required.
- 5.2 With absence of GCN DNA recorded within the surveyed pond, their presence in the immediate landscape is unlikely, given the site-specific factors described in this report; impacts to this species through habitat loss from the proposals can therefore be reasonably discounted.
- 5.3 Notwithstanding the above, RAMs for amphibians have been recommended in the site associative PEA report; any RAMs conditioned should include amphibians to act as a sufficient safeguard for herpetofauna. It is recommended that a detailed and bespoke working Method Statement should be applied outlining key reasonable avoidance measures (RAMs) and working protocols to be in effect during the proposed work schedule once confirmed. The recommended RAMs should be drafted by a suitably experienced and qualified GCN licenced Ecologist / Ecological Clerk of Works (ECoW). Upon gaining understanding of the details contained within the RAMs, the applicant and associated contract team would be expected to comply with the measures recommended within it.
- 5.4 Any RAMs drafted should be subject to the approval of the local planning authority acting on the professional judgement of their ecological advisors - following approval, adherence to the terms of the RAMs would be a requirement of the named authority and the applicant would be the liable party, with the Ecologist / ECoW acting for and on behalf of the applicant.
- 5.5 The applicant and all contractors would be aware that if at any stage great crested newt (GCN) are encountered during works, or at any other stage of the work programme, works would be required to immediately cease and the Ecologist / ECoW be made aware as to provide further guidance if an Ecologist is not already present.
- 5.6 Recommended measures to enhance the biodiversity of the site are presented as a part of the original PEA report, with enhancement recommendations for breeding birds, native landscaping, hedgehog, invertebrates and hibernacula provisions for a variety of taxa.

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Appendix I: *PR-0380-24 Stand Golf Club Site A – Preliminary Ecological Appraisal* (Tyrer Ecological Consultants Ltd, January 2025)

Appendix II: *PR-0380-24 Stand Golf Club Site B – Preliminary Ecological Appraisal* (Tyrer Ecological Consultants Ltd, January 2025)

Appendix III: *Environmental DNA (eDNA) raw data* (ADAS, Sample ID: ADAS-6543) (April 2025)