

Living Ecosystems

'Working Towards Sustainable Development and Providing Ecological Education...'



Results of an amphibian survey carried out in the vicinity of Bowlee Park Driving Range, Heywood Old Road, Middleton M24 4TH, Near Rochdale - May/June 2024

1.0 Introduction

Living Ecosystems was commissioned by Improve Your Golf Ltd to carry out an amphibian survey of two ponds in the vicinity of Bowlee Park Driving Range, Heywood Old Road, Middleton, M24 4TH. National grid reference SD 84567 06503. The survey is in support of the proposed development of an adventure golf course, an increase in the number of car parking spaces and the addition of another storey on the existing driving range building. The purpose of the survey was to determine whether great crested newts or other amphibians were present at the site.



Figure 1 The site is Bowlee Park Driving Range

Site description and location

The development site is at Bowlee Park Driving Range off Heywood old Road, Middleton, and measures 175 metres by 120 metres or approximately 2.10 hectare area of very flat close mown amenity grassland.

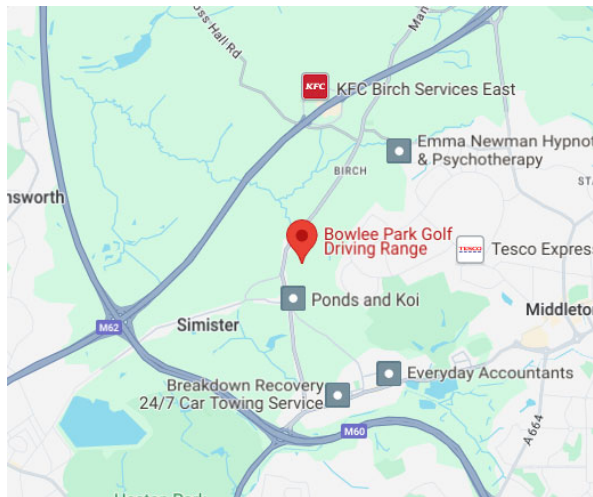


Figure 2 The survey site is Bowlee Park Driving Range M24 4TH

Details of the proposed works

The proposed development comprises the construction of an adventure golf course, an increase in the number of car parking spaces and the addition of another storey on the existing driving range building.



Figure 3 The current development proposals

2.0 Desktop Study and Data Search

This report contains the findings of an amphibian survey carried out at two ponds in the vicinity of Bowlee Park Driving Range. The Purpose of the survey was to identify the absence or presence of protected amphibian species

on the site itself and within the vicinity (to a 0.5 km radius) of the site. The final part of the project brief was to make recommendations as appropriate.

The following sources of information and ecological records were consulted:

A desktop study was undertaken through MAGIC (Multi-Agency Geographic Information System for Countryside). The search sought to identify the presence of statutory designated sites within a 1km radius of the site. Such sites include Special Areas of Conservation (SACs), Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR). A wider search radius up to 5km has also been considered where appropriate in the site's context. The NBN Atlas: which is the UK's largest repository of publicly available biodiversity data was used to find local records of relevant protected species and any other species of importance locally. All measurements within this report are approximate only, and have been estimated whilst on site or calculated using mapping software (QGIS) or internet-based mapping services such as MAGIC Maps and Google Earth.

3.0 Desktop Study and Data Search Results

The site is not designated as a statutory designated site for nature conservation, and no statutory designated sites for nature conservation lie within a 1.0 kilometre radius of the site. The site does not lie within the impact risk Zone of any statutory designated site

The site has no non-statutory designations for nature conservation, and no non-statutory designated sites for nature conservation lie directly adjacent to the site boundary. No statutory or non-statutory sites exist within a 1.0 kilometre radius of the site. The site does not lie within the impact zone of a SSSI.

Previous records of protected species within a 1.0 km radius of the site.

The only protected species recorded within a 1.0 km radius of the site is the common pipistrelle bat.

Amphibians

Two ponds lie within a 500 metre radius of the site which were considered to be suitable as breeding sites for great crested newts or other amphibians. For this reason a survey for great crested newts (*Triturus cristatus*) and other amphibians was considered necessary. The survey of both ponds was carried out during May 2024 and found smooth newts and common frogs breeding in Pond number 2 and juvenile frogs but no evidence of breeding in Pond and ditch number 1 (see figure 4 below).



Figure 4 Suitable newt breeding ponds in a 500 metre radius of Bowlee Park

Great crested newt (gcN) surveys

Planning regulations require that all ponds suitable for great crested newts (GCNs) within a 500 metre radius of a proposed development site be surveyed for GCNs, unless they are separated from the site by insurmountable barriers such as running

water or busy roads. Suitable breeding ponds may be identified by competent gcN licensed ecologists or using the GCN Habitat Suitability Index Matrix Calculator. All ponds scoring 'Average' or better using the GCN HSI Matrix should be surveyed.

Categorisation of HSI Score by Lee Brady	
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

ARGUK GCN HSI Calculator			
		Pond Name	Bowlee D R
		Grid Ref	
SI No	SI Description		SI Value
1	Geographic location		1
2	Pond area		0.2
3	Pond permanence		1
4	Water quality		1
5	Shade		1
6	Water fowl effect		1
7	Fish presence		1
8	Pond Density		0.8
9	Terrestrial habitat		1
10	Macrophyte cover		0.6
HSI Score			0.79
Pond suitability (see below)			Good

GCN HSI score for pond & ditch number 1

ARGUK GCN HSI Calculator			
		Pond Name	
		Grid Ref	
SI No	SI Description		SI Value
1	Geographic location		1
2	Pond area		1
3	Pond permanence		0.9
4	Water quality		1
5	Shade		1
6	Water fowl effect		1
7	Fish presence		1
8	Pond Density		1
9	Terrestrial habitat		1
10	Macrophyte cover		1
HSI Score			0.99
Pond suitability (see below)			Excellent

Figure 5 GCN HSI score for pond number 2

Pond & ditch number 1 in the Bowlee Driving Range car park area scored 0.79 or 'Good' on the GCN HSI Matrix and therefore must be surveyed. Pond number 2 scored 0.99 or 'Excellent' on the GCN HSI Matrix and therefore must also be surveyed. This requirement is further re-inforced by the known existence of a great crested newt breeding population less than 2 km to the south east of the site as shown by the National Biodiversity Network Gateway record on figure 6 below.

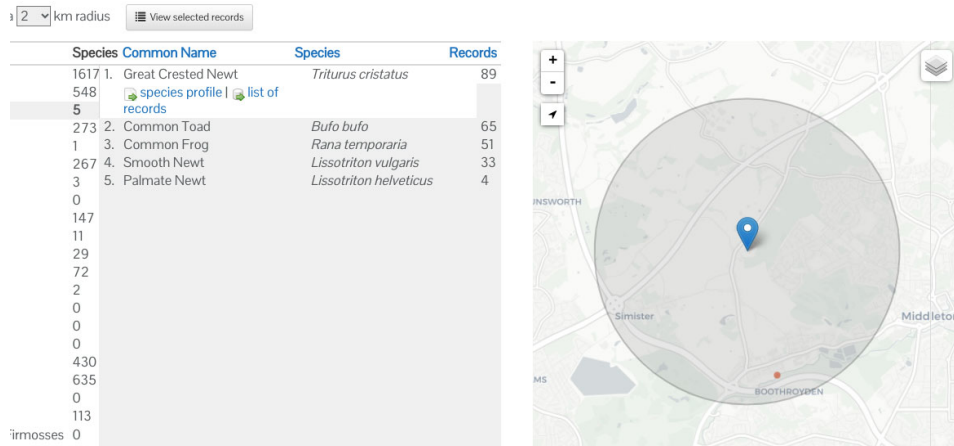


Figure 6 Great crested newts have been recorded slightly less than 2 km south of the site

Common frog and smooth newt - Both species have all been recorded at a site within a 0.5 km radius of the site. All of the records were made at a location approximately 400 metres to the south of the site (figure 7 below).

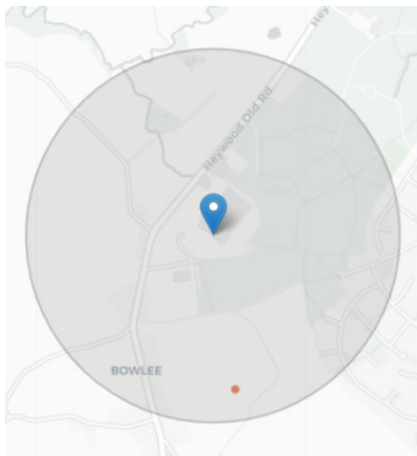


Figure 7 Location of common frog and smooth newt records within a 0.5 km radius of the site

The more common British amphibians, i.e. common frog (*Rana temporaria*), common toad (*Bufo bufo*), smooth newt (*Lissotriton [Triturus] vulgaris*) and palmate newt (*Lissotriton [Triturus] helveticus*) are protected only by Section 9(5) of the Wildlife and Countryside Act 1981. This section prohibits sale, barter, exchange, transporting for sale and advertising to sell or to buy, and is not relevant to this situation.

Amphibian Surveys

A full amphibian survey of both Pond and ditch 1 and Pond 2 was carried out during May and June of 2024. The survey adhered to the methodology outlined in ENGLISH NATURE (2001) Great Crested Newt Mitigation Guidelines (August 2001 version); English Nature is now known as Natural England. All survey works were carried out by Principal Ecologist Richard Parkinson MCIEEM a very experienced herpetologist (the survey was carried out as an accredited agent under a great crested newt survey class licence which is held by Lyn Eccles MCIEEM) assisted by Susan Wood an equally qualified field survey assistant.

Summary of results

A medium sized population of smooth newts (*Lissotriton [Triturus] vulgaris*) and common frogs (*Rana temporaria*) were found to be breeding at Pond number 2. A small number of juvenile common frogs were observed in the Pond and ditch number 1, with no indications of any breeding amphibians.

Presence/absence of amphibians 2009

Pond No.	Peak Count	Tc	Tv	Th	Bb	Rt	Fish
1		-	-	-	-	Juveniles	-
2		-	28	-	-	100+ tadpoles	-

Note: Tc. = great crested newt, Tv. = smooth newt, Th. = palmate newt, Bb = common toad, Rt = common frog, M = male, F = female, J = juvenile & Tp = tadpole.

During the survey smooth newt/palmate newt eggs were discovered in small numbers in Pond number 2 during May. There was a peak count (ie the highest number during any single survey) of 28 smooth newts in Pond number 2 on the 11th of May 2024 indicating a medium sized population.

Egg search results 2024

Pond No.	Date	Great crested newt eggs	Palmate/smooth newt eggs	Tadpoles
1	7th May	-	-	-
2	7th May onwards	-	Many	100+ frog

SITE DESCRIPTION

Two ponds were included in the survey (see figure 8 below). Pond and ditch number 1 is situated in the existing car parking area immediately to the south of the Bowlee Park Club House. Pond number 2 is situated immediately to the north east of the driving range.



Figure 8 Ponds suitable for great crested newts within a 500 metre radius of Bowlee Park Driving Range

POND DESCRIPTIONS

Pond Number	% open water	%plant cover	Types of plant	Extent of shading	Water depth	Sustrate	Presence of fish	Turbidity
1	85%	15%	Flote grass	nil	Less than 1 metre	Hard clay substrate	No fish	Clear
2	60%	40% marginal s	yellow flag, Common reed, flote grass, water forget me not, greater bullrush	nil	less than 1 metre	Deep silt 1 metre or more in depth	No fish	Slightly turbid



Figure 9 Pond and ditch number 1



Figure 10 Pond number 2

6.0 SURVEY METHODOLOGY

The amphibian survey was undertaken during May and June of 2024. The methods used to undertake the survey included; bottle trapping, torch light survey and egg searches. The survey period was between May and June, with at least three visits during early May. The survey visits took place on 7th/8th May, 8th/9th May, 11th/12th May and 5th/6th June.

Bottle Trapping Survey Method

Bottle trapping surveys were undertaken to comply with the English Nature Great Crested Newt Mitigation Guidelines (Version: August 2001). Bottles were placed every 2 metres along the waters' edge. All bottles contained an air bubble; bottles were checked within 12 hours. Bottle trapping surveys were undertaken when night air temperatures were greater than 5 degrees C, with little or no wind, and no appreciable rain. At least 80% of the perimeter of each pond was surveyed using bottle traps.

Torch Light Survey Method

The pond torchlight survey included walking around the pond perimeters after dusk, with a powerful torch (Nightlight, one million candle power). Torch light surveys were undertaken to comply with the English Nature Great Crested Newt Mitigation Guidelines (Version: August 2001). It was possible to cover at least 70% of the perimeter of each pond using the torch light survey method.

Bottle trapping and torchlight surveys were undertaken on at least four occasions during suitable weather conditions.

Egg Search Method

Egg Searches were undertaken to comply with the English Nature Great Crested Newt Mitigation Guidelines (Version: August 2001). Once newt eggs were found the search was terminated.

7.0 SURVEY RESULTS

Bowlee Park Driving Range torch light survey results May/June 2024

Torch light Survey 1

Pond Number	Date	Male GCN	Female GCN	Male SN	Female SN	Toads	Frogs	Palmate Newt	-
1	7.5.24	-	-	-	-	-	4	-	-
2	7.5.24	-	-	12	5	-	-	-	-
		-	-	12	5 = 17	-	4	-	

Torch light Survey 2

Pond Number	Date	Male GCN	Female GCN	Male SN	Female SN	Toads	Frogs	Palmate Newt	-
1	8.5.24	-	-	-	-	-	5	-	-
2	8.5.24	-	-	9	8	-	-	-	-
		-	-	9	8 = 17	-	5	-	

Torch light Survey 3

Pond Number	Date	Male GCN	Female GCN	Male SN	Female SN	Toads	Frogs	Palmate Newt	-
1	11.5.24	-	-	-	-	-	3	-	-
2	11.5.24	-	-	16	12	-	-	-	-
		-	-	16	12 = 28	-	3	-	

Torch light Survey 4

Pond Number	Date	Male GCN	Female GCN	Male SN	Female SN	Toads	Frogs	Palmate Newt	-
1	5.6.24	-	-	-	-	-	2	-	-
2	5.6.24	-	-	2	9	-	-	-	-
		-	-	2	9 = 11	-	2	-	

Bowlee Park Driving Range bottle survey results May/June 2024

Bottle Survey 1

Pond Number	Date	Male GCN	Female GCN	Male SN	Female SN	Toads	Frogs	Palmate Newt	-
1	8.5.24	-	-	-	-	-	-	-	-
2	8.5.24	-	-	2	2	-	-	-	-
		-	-	2	2 = 4	-	-	-	

Bottle Survey 2

Pond Number	Date	Male GCN	Female GCN	Male SN	Female SN	Toads	Frogs	Palmate Newt	-
1	9.5.24	-	-	-	-	-	-	-	-
2	9.5.24	-	-	1	2	-	10+ tadpoles	-	-
		-	-	1	2 = 3	-	-	-	-

Bottle Survey 3

Pond Number	Date	Male GCN	Female GCN	Male SN	Female SN	Toads	Frogs	Palmate Newt	-
1	12.5.24	-	-	-	-	-	-	-	-
2	12.5.24	-	-	-	2	-	10+ tadpoles	-	-
		-	-	-	2	-		-	

Bottle Survey 4

Pond Number	Date	Male GCN	Female GCN	Male SN	Female SN	Toads	Frogs	Palmate Newt	-
1	6.6.24	-	-	-	-	-	-	-	-
2	6.6.24	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	

Egg search results 2024

Egg searching was undertaken on four occasions during May and June 2024. Smooth/Palmate Newt eggs were found in pond number 2 initially on 7th May 2024 and subsequently on all the other survey visits ie 8th May, 11th May and 5th June. No amphibian eggs were found in pond and ditch number 1.

Egg search results 2019

Pond No.	Date	Great crested newt eggs	Palmate/smooth newt eggs	Tadpoles
1	7th May onwards	-	-	Juvenile common frogs
2	7th May onwards	-	Many	100+ common frog

8.0 RESULTS SUMMARY 2024

The results of the 2024 survey are summarised below showing the peak counts of amphibian species.

Pond and ditch number 1 - presence/absence of amphibians 2024

Date	7th May	8th May	11th May	5th June	
Peak Count	4 juvenile common frogs	5 juvenile common frogs	3 juvenile common frogs	2 juvenile common frogs	

Note: Tc. = great crested newt, Tv. = smooth newt, Th. = palmate newt, Bb = common toad, Rt = common frog, M = male, F = female, J = juvenile & Tp = tadpole.

Pond number 2 - presence/absence of amphibians 2024

Date	7th May	48 th May	1 st May	5th June	
Peak Count	17 smoothnewts 100+frog tadpoles	17 smooth newts 100+frog tadpoles	28 smooth newts 100+frog tadpoles	11 smooth newts 100+frog tadpoles	

Note: Tc. = great crested newt, Tv. = smooth newt, Th. = palmate newt, Bb = common toad, Rt = common frog, M = male, F = female, J = juvenile & Tp = tadpole.

Peak counts

The pond peak count is the maximum number of any single newt species found in a single pond during one session of sampling. Total peak counts numbering under ten are indicative of a small sized population of amphibians and peak counts between 10 and 100 indicate a medium sized populations. The peak count of 28 smooth newts (*Lissotriton [Triturus] vulgaris*) in Pond number 2 on 11th May 2024 is indicative of a medium sized population of smooth newts. Common frog tadpoles (*Rana temporaria*) were present in Pond number 2 indicating that a breeding population of common frogs (*Rana*

temporaria) is present. Small numbers of juvenile common frogs were found at Pond and ditch number 1, but with no evidence of breeding.

9.0 CONSTRAINTS OF THE SURVEY

It was only possible to complete torch surveys and bottle trapping approximately 50% of the margins of pond number 2. This was because access was restricted by the deep water and deep silt. A larger number of bottle traps were used in the accessible areas in order to make up for this deficiency.

10.0 CONCLUDING REMARKS

Impacts

The current proposal comprises the construction of an adventure golf course, an increase in the number of car parking spaces and the addition of another storey on the existing driving range building.



Figure 11 The current development proposals

Recommendations

No evidence for protected amphibians was found within a 500 metre radius of the site, therefore there would be no impact on any protected amphibian species. Small numbers of juvenile common frogs were found in Pond and ditch number 1 on the site itself; however the current proposals would not have a material impact upon them. I do not recommend any specific actions in relation to amphibians beyond the retention of Pond and ditch number 1 on the site.

Prepared by

Richard W Parkinson BSc[Hons] FLS MIEEM
Senior Partner – Living Ecosystems
WWW.livingecosystems.co.uk
June 2024

8.0 REFERENCES

- ENGLISH NATURE (2001) Great Crested Newt Mitigation Guidelines (August 2001 version). English Nature, Peterborough.
- FROGLIFE (2001) Great Crested Newt Conservation Handbook. Published by Froglife, Mansion House, Halesworth, Suffolk.
- JOINT NATURE CONSERVATION COMMITTEE (1998) 'Herpetofauna Workers Manual' Gent, A. & Gibson, S. (eds). JNCC, Peterborough.
- STEWART. J.W. (1969) The Tailed Amphibians of Europe, David and Charles Ltd, Newton Abbot, Devon.
- OLDHAM, R. S., KEEBLE, J., SWAN, M. J. S. & JEFFCOTE, M. (2000) Evaluating the suitability of habitat for the great crested newt (*Triturus cristatus*). The Herpetological Journal 10(4): 143 – 155.

Appendix 1.0 Statutory & planning context in relation to Great Crested Newts

Great crested newts (*Triturus cristatus*) and their habitat (aquatic and terrestrial) are afforded full protection by the Wildlife and Countryside Act 1981 (Section 9, Schedule 5). This Act is the domestic implementation of the Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) and was amended by the Countryside and Rights of Way Act 2000.

In addition to the above protection great crested newts are listed on Annex II and Annex IV of the Conservation of Natural Habitats and Wild Fauna and Flora (the Habitats [and species] Directive). This is transposed into UK law by the Conservation (Natural Habitats & c.) Regulations 1994 (the Habitats Regulations).

If both national and international legislation are taken together, it is an offence to:

Intentionally/deliberately kill, disturb injure or take a great crested newt;

Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt;

Intentionally/deliberately or recklessly damage disturb a great crested newt while it is occupying a structure or place which it uses for that purpose;

Possess or control any live or dead specimen or anything derived from a great crested newt;

Deliberately take or destroy the eggs of a great crested newt;

Damage or destroy a breeding site or resting place of a great crested newt.

Great crested newts are also protected by the Protection of Animals Act 1911, and the Animal Welfare Act of 2007 which prohibits cruelty and mistreatment. Releasing a great crested newt in such a way as to cause undue suffering may be an offence under the Abandonment of Animals Act 1960. In addition to the above, there are various statutory provisions relating to the transport of animals, designed to ensure their welfare.

It is important to identify the presence of great crested newt individuals and also to identify suitable habitat on site in order that legal obligations regarding this species can be observed. If the survey identifies the presence of great crested newts on the site, a mitigation scheme would need to be developed, in liaison with the local Natural England team, which minimises direct threats to newts and compensates for loss of habitat. A licence issued by Natural England (formerly by The Department for the Environment, Food and Rural Affairs) is required for the legal implementation of a mitigation scheme.

A Natural England mitigation licence application requires a Mitigation Method Statement, and a Reasoned Statement of Application. The Mitigation Method Statement contains details of proposed mitigation works. The Reasoned Statement needs to provide a rational and reasoned justification to why the proposed development meets the requirements of the Conservation (Natural Habitats & c.) regulations 1994, namely Regulations 44(2)(e), (f) or (g), and 44(3)a).

Other Amphibians

Where such an amphibian survey rules out the presence of great crested newts, there may be the need to develop a scheme for the conservation of the less protected amphibians as a planning condition, should the development pose a risk to a locally significant population of amphibians.

The more common British amphibians, i.e. 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. This section prohibits sale, barter, exchange, transporting for sale and advertising to sell or to buy, and is not relevant to this situation.

The more common amphibian species are, 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 great crested newts is ruled out.

Waterbodies that support all five species of British amphibians, in high numbers, maybe afforded protection in local plans, as Sites of Importance for Nature Conservation or Sites of Biological Interest (SINC or SBI), or a similar equivalent, for sites of local importance. A site may require statutory protection as a Site of Scientific Interest (SSSI).