



“Providing Common-sense Solutions for Sustainable Development”

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Sytech Road, Brown Edge

Reptile and Terrestrial Amphibian Presence/Absence Survey

April to May 2018



Reptile and Terrestrial Amphibian Presence/Absence Survey

Reptile and Terrestrial Amphibian Presence/Absence Survey

At

Sytch Road
Brown Edge
Staffordshire

For

Mr. Gez Willard
(Agent)

Reptile and Terrestrial Amphibian Presence/Absence Survey

0. Executive Summary

This report relates to land off Sytch Road, Brown Edge, Staffordshire (OS Grid Reference: SJ 90779 53259). The work, commissioned by Mr. Gez Willard (Agent), was to carry out a reptile/amphibian (terrestrial) presence/absence surveys at the site. To fulfill this brief, both a desk-based study and site survey were carried out.

The site is situated in the village of Brown Edge, Staffordshire. The proposed development site consists of various habitats/features – tall ruderal, marshy grassland, scattered trees and a ditch. Additionally, residential/commercial properties, gardens/yards, amenity grassland and hard-standing ground, all dominate the immediately adjacent land in all directions. Within the wider landscape, habitats such as housing estates, parkland, heathland, woodland, pastureland, arable land and water bodies (in the form of rivers and ponds) are all present.

As it stands, the terrestrial surveys undertaken have revealed that the site is not currently in use by either reptiles or great crested newts. However, a peak count of two common frogs (*Rana temporaria*) and 2 Common toads (*Bufo bufo*) were identified.

However, as neither of the species groups of interest was identified on the site, the proposed works can continue as planned, with no need for a mitigation strategy. However, due to the identification of common frogs (*Rana temporaria*) and common toads (*Bufo bufo*), it is highly recommended that the marshland and a section of the tall ruderal habitats are retained with enhancement measures (pond) created, to compensate for the loss of tall ruderal habitat. The creation of a pond will enable breeding opportunities for frogs and toads at the site.

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1. INTRODUCTION

1.1 Background

This report relates to land off Sytch Road, Brown Edge, Staffordshire (OS Grid Reference: SJ 90779 53259). The work, commissioned by Mr. Gez Willard (Agent), was to carry out a reptile/amphibian (terrestrial) presence/absence survey of the site. To fulfill this brief, both a desk-based study and site surveys were carried out.

1.2 Purpose of this report

This report addresses the following specific requirements of the Local Planning Authority, Wildlife and Countryside Act 1981, European Conservation (Natural Habitats &c.) Regulations 1994, Countryside Rights of Way Act (CROW) 2000 and Natural England's specific requirements regarding reptiles.

- The primary purpose of the surveys is to ensure that any development can proceed without breaking legislation in relation to reptile and amphibian species being present on the site.
- To provide an independent report documenting survey findings for the presence/absence of reptile and amphibian species.
- The effect the proposed development may have on reptile and amphibian species.
- Reptile and amphibian survey methods used.
- Details of any required mitigation/compensations measures and any agreed receptor site/s.
- Whether a Natural England (DEFRA) development licence is required.

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1.3 **Legislation**

Reptiles

All six British reptile species receive legislative protection, the extent of which varies according to their rarity and conservation importance.

The very rare sand lizard and smooth snake receive 'full protection' under the Wildlife and Countryside Act 1981 (as amended) as well as protection under the Conservation (Natural Habitats &c.) Regulations 1994 (often referred to as the Habitats Directive). This means that they are protected from deliberate disturbance, killing, injury or capture and the habitat in which they live is also fully protected against damage or destruction. Any activity involving disturbance or damage to habitats utilised by sand lizards or smooth snakes would require a licence issued by the Department of the Environment, Food and Rural Affairs (DEFRA) following consultation with the statutory nature conservation organisation (Natural England).

Slow-worm, common lizard, grass snake and adder are 'partially protected' under the Wildlife and Countryside Act 1981 (as amended), which means that they are protected against intentional killing, injuring and against sale, but their habitat is not protected. In planning terms this means that the presence of these species is a material consideration and there is a requirement to ensure that any reptile interest is safeguarded. If a proposed development is likely to have an impact on these reptiles the statutory nature conservation organisation must be notified, particularly if capture and translocation is being proposed. In some parts of the UK, sites that support common reptile species such as common lizards and slow-worms can qualify as County Wildlife Sites. Sites of this designation may receive protection in planning policy.

Great Crested Newts

The Great Crested Newt is fully protected under the Wildlife and Countryside Act 1981, the European Conservation (Natural Habitats &c.) Regulations 1994 and the Countryside and Rights of Way Act 2000. This legislation makes it illegal to damage, destroy or obstruct access to any structure or place used for shelter, protection or breeding, and to intentionally disturb a Great Crested Newt while it is occupying a structure or place which it uses for that purpose.

Licenses can be obtained from Natural England (DEFRA) under the Conservation (Natural Habitats, &c.) Regulations 1994, to permit activities for the purpose of:

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- Regulation 44(2)(e): 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, or
- Regulation 44(2)(f) for the purpose of preventing the spread of disease or

- Regulation 44(2)(g) for the purpose of preventing serious damage to any form of property or to fisheries and
- Or there is no satisfactory alternative.

The above Regulations allow people to carry out activities which would otherwise be illegal.

1.4 **Site Description**

The site is situated in the village of Brown Edge, Staffordshire. The proposed development site consists of various habitats/features – tall ruderal, marshy grassland, scattered trees and a ditch.

Additionally, residential/commercial properties, gardens/yards, amenity grassland and hard-standing ground, all dominate the immediately adjacent land in all directions. Within the wider landscape, habitats such as housing estates, parkland, heathland, woodland, pastureland, arable land and water bodies (in the form of rivers and ponds) are all present. These habitats present some potential foraging/sheltering opportunities to local herpetile populations.

Under the current proposals, a section of the land is set to be cleared and developed into residential dwellings.

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Figure 1: An aerial image showing the site (red outline) and some of the neighbouring habitats.



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1.5 Aims and Objectives of the Studies

The main aim of the survey was to determine the presence/absence of reptiles and terrestrial amphibians at hotspots within the proposed redevelopment site.

A full assessment of the effects of the proposed development on any reptile and amphibian populations present, is an important factor in determining the need and scope for any subsequent mitigation measures.

The aims and objectives of the surveys at the hotspot areas were to:

- Determine the presence or absence of reptiles and terrestrial amphibians within areas of suitable habitat at the proposed development site.
- Determine which species are present.
- Provide necessary mitigation/compensation measures above and beyond the need to mitigate adverse effects which may occur if reptiles and amphibians are present and the proposed development goes ahead.
- To identify development maintenance practices which are likely to influence the conservation of reptiles and amphibians on the site.

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2. METHODOLOGY

2.1 Ecological Data Search

Staffordshire Ecological Record (SER) was commissioned to carry out an ecological data search of all protected species and designated sites recorded within a 2km radius of the site.

Additionally, a desktop study of the area using online resources was undertaken to provide a basic understanding of the site and its importance in the landscape. Websites used for this study include, www.magic.gov.uk, www.data.nbn.org.uk, www.naturalengland.org.uk, Google Earth and www.ordinancesurvey.co.uk. This provided information on the surrounding area and the changes of the site over time, since temporal stability will increase the site's importance in relation to nature conservation.

2.2 Field Survey Methods and Constraints

The survey methodologies used were undertaken in accordance with those detailed in the Herpetofauna Workers' Manual (JNCC 2003), and they include;

- A walkover survey to locate reptiles and amphibians.
- That reptile surveys be carried out between March to late-June or late-August to late-September during the hours of 8am to 11am or 4pm to 6.30pm.
- Ensuring that the surveys are carried out in warm, dry weather conditions.
- Inspecting artificial refugia mats placed in suitable areas within the proposed development site in order to locate reptiles and terrestrial amphibians.
- Inspecting natural refugia areas to locate reptiles and terrestrial amphibians.

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3. RESULTS

3.1 Ecological Data Search**Statutory and non-statutory designations**

Within the 2km search area, 15 designated wildlife sites were recorded. These are as follows:

- Baddeley Edge Ridge (LWS)
- Ball Lane Wood (LWS)
- Greenway Bank Country Park (LWS)
- Greenway Hall Golf Course (LWS)
- Heakley Marshes (LWS)
- Holehouse Farm (retained BAS)
- Marshes Hill (LNR and LWS)
- Postbridge Farm [west of] (LWS)
- Rushmoor Wood (retained BAS)
- Stonehouse Drumble (LWS)
- Tank Field (LWS)
- The Green, Baddeley (LWS)
- Tinster Wood (LWS)
- Westfield Wood (retained BAS)

The nearest of these to the proposed application site is the 'Tinster Wood' (approximately 615m to the south-east). However, it has been noted by Kate Dewey (Staffordshire Wildlife Trust – Planning and Conservation Officer) that Marshes Hill LNR would be the subject to increased visitor pressure by the construction of residential properties on the land. Since this comment, the scheme of works has been reduced for the site.

Reptile Records

The Ecological Data Set has revealed records of three species of reptiles within a 2km search radius of the site proposed for works. These came in the form of adder (*Vipera berus*), common lizard (*Zootoca vivipara*) and slow-worm (*Anguis fragilis*). The closest record of these species was of slow-worm, situated approximately 345m to the west of the proposed development site. It is possible that the identified amphibian populations could commute onto the proposed development site.

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Amphibian Records

From the ecological data search provided by SER, multiple sightings of common toads (*Bufo bufo*) and great crested newts (*Triturus cristatus*) have been recorded within the 2km radius of the site. The nearest of these records were of great crested newts within a garden pond situated approximately 217m to the north. It is possible that the identified amphibian populations could commute onto the proposed development site.

3.2 Walkover Survey: Habitat Requirements**Description and Findings**

The nature of the habitats on the site and the mosaic of varying habitats within the surrounding area are ideal for both terrestrial amphibians and reptile populations (particularly the latter). The dominant habitats on the site consist of Tall Ruderal and Marshland habitats. Within the wider landscape, there is woodland, arable land, pastureland, parkland, water-bodies and residential/commercial buildings with their associated gardens and yards. All these habitats are able to support local herpetile populations.

3.2 Survey of Hotspots

Surveys were undertaken between April-May 2018 (between the hours of either 8.30am to 11am or 4pm to 6.30pm), and they involved checking beneath pre-placed artificial refugia mats which were scattered around suitable hotspot areas of the site. Multiple site visits were undertaken on different days with suitable weather conditions (i.e. air temperature between 9-18°C with bright sunshine) in order to check each of the refugia mats for reptile/amphibian presence.

The artificial refugia mats (carpet tiles, roofing felt and tins) are approximately 1m² in size, and they were installed on the site approximately two weeks before the commencement of the first survey visit on 09/04/2018. This was done in order to allow the mats to bed down, which ultimately makes them more attractive to wildlife. In total, 31 refugia mats (12 mats per hectare) were placed in selected areas of the site that were considered to be of the highest potential value to herpetiles.

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Figure 2: This photo shows an example for the reptile refugia used on the site.



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Table 1: Dates/weather conditions and maximum number of reptiles/amphibians recorded during each visit when the refugia mats were checked.

<u>Survey Date</u>	<u>Weather conditions</u>	<u>Temperature °C</u>	<u>Herpetiles</u>
09/04/18	Dry, sunny	9.0	None
16/04/18	Dry, sunny	10.0	None
23/04/18	Dry, sunny	9.0	None
30/04/18	Dry, sunny	9.0	None
1/05/18	Dry, sunny	10.0	None
7/05/18	Dry, cloudy	20.0	2 Common Frog
14/05/18	Dry, sunny	12.0	2 common Toad
15/05/18	Dry, sunny	13.0	None
21/06/18	Dry, sunny	18.0	2 Toads, 1 Short Tailed Field Vole

Implications

No reptiles or great crested newts were found on the site during the multiple survey visits. With this being the case, the proposed works can continue as planned, with no negative impacts on these species being predicted.

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4 SITE STATUS AND SPECIES ASSESSMENT

As it stands, the terrestrial surveys undertaken have revealed that the site is not currently in use by either reptiles or great crested newts. However, the site was found to support a small population of common frogs (*Rana temporaria*) and common toads (*Bufo bufo*)

As the numbers of reptiles were none existent and terrestrial amphibians was minimal, it is anticipated that the site is not critical to their survival within the local landscape.

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5 IMPACT ASSESSMENT

From the conducted surveys, it has become clear that the site does not support any reptile or great crested newt populations. Therefore the proposed works will bear no negative impact on the local populations of these species.

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6 RECOMMENDATIONS AND CONCLUSION

As it stands, the terrestrial surveys undertaken have revealed that the site is not currently in use by either reptiles or great crested newts. However, there was a peak count of 2 common frogs (*Rana temporaria*) and 2 common toads (*Bufo bufo*) was identified on the site.

Due to the identification of common frogs (*Rana temporaria*) and 2 common toads (*Bufo bufo*), it is highly recommended that the marshland and a section of the tall ruderal habitat are retained with enhancement measures (pond) to compensate for the loss of tall ruderal habitat.

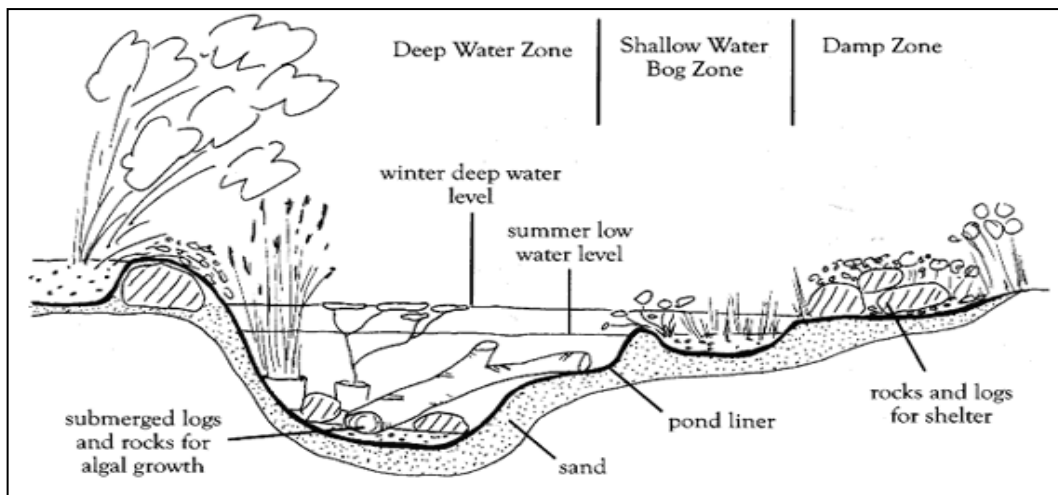
The creation of a pond at the site will provide frogs and toads breeding opportunities.

- **Pond Creation**

Natural England Pond Creation criteria:

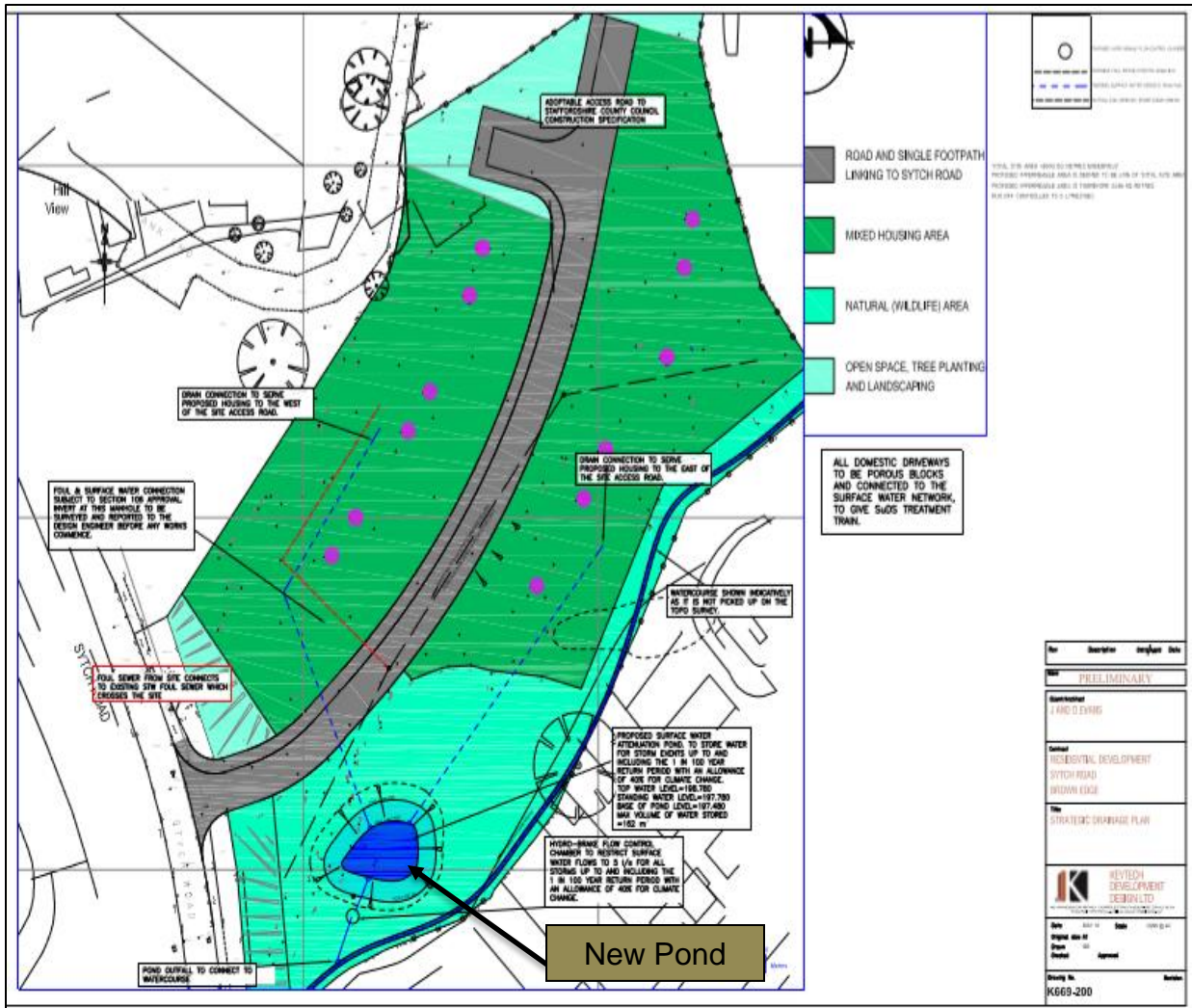
- Surface area to be at least 25m² (5m x 5m)
- Depth will be approximately 1m in the middle and will be lined with either clay or a pond liner
- The south side of the ponds will be clear of vegetation to prevent over shading.
- The pond will be fenced off with post and wire fencing to deter disturbance by humans and safeguard children.

Figure 3: Example of how the ponds will be created



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Figure 4: Pond Location (indicated by the blue circle).



These plans are for illustration purposes only. For a larger and clearer images, please contact Mr. Gez Willard (gez.willard@icloud.com)

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7 REFERENCES

Joint Nature Conservation Committee (2003) Herpetofauna Workers' Manual.

RSPB (2002). The Population Status of Birds in the UK 2002-2007.

The European Conservation (Natural Habitats, &c.) Regulations 1994. HMSO.

Wildlife and Countryside Act (1981).

Countryside Rights of Way Act (2000).

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8 APPENDICES

APPENDIX A: Photographic Records

Plate 1: An image showing an overview of the site showing the tall ruderal habitat.



Plate 2: A photograph showing the tall ruderal habitat from the eastern side of the site.



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Plate 3: An image of the marshland habitat located in the southern part of the site.



Plate 4: A photograph of a surveyor inspecting one of the tin refugia used on the site.



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Plate 5: A photograph of a surveyor inspecting one of the carpet tile refugia used on the site.



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9 LIMITING CONDITIONS/DISCLAIMERS (Unless stated otherwise)

1. The Service

- 1.1 Evolution Ecology agrees to supply ecological consulting services of a preliminary nature or a more thorough service as advised or as commissioned.

2. Fees

- 2.1 The client(s) will settle the agreed fee in full, within 30 days of receiving the invoice. Reports will remain the property of Evolution Ecology until full payment has been received. No liability is accepted for the contents of a report that is not paid in full. Any queries should be notified to Evolution Ecology within 7 days of the invoice date.
- 2.2 If the client(s) fails to pay within the time specified in 2.1 then Evolution Ecology shall charge the client(s) interest on the outstanding fee, both before and after any judgment, at the rate of 4% per month above the HSBC Bank base rate, until payment is made in full (A part of a month being treated as a full month for the purposes of calculating interest).
- 2.3 In the event that it is necessary to recover any outstanding fees from the client(s), the client(s) will fully reimburse any costs and expenses incurred during the recovery period, including court costs. Evolution Ecology reserves the right to make a charge for every letter sent and telephone/fax call made, in connection with the recovery.

3. The Report

- 3.1 If any part of the report is lost, or altered without the written consent of Evolution Ecology, then the entire report becomes invalid.
- 3.2 The general format of reports is a certified product and cannot be shown, copied or distributed to third parties without the permission of Evolution Ecology. No liability is accepted for the contents of the report, other than to that of the client(s).
- 3.3 The report will purport not to express any opinion or comment as to the condition or structural integrity of any building and no reliance should be made on any such comments.

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4. Insurance Cover

- 4.1 All work carried out by Evolution Ecology is covered by a £1,000,000 professional indemnity insurance.

5. Quality of Craftsmanship

- 5.1 When appointing an Ecologist, please use only suitably qualified and experienced companies (The Local Authority and the Institute of Ecology and Environmental Managers may be able to provide a select list of such companies)
- 5.2 Evolution Ecology will not accept liability for any works undertaken by any other companies, or contractors.