



Keepmoat

Land West of Cheadle Rd., Upper Tean

Ecological Appraisal

Appendix B - Reptile Report

January 2023

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1.0 INTRODUCTION

- 1.1 This report has been prepared by FPCR Environment and Design Ltd. (FPCR) and provides details of a reptile survey undertaken as part of the Ecological Appraisal process to inform Keepmoat's planning application for residential development on land to the west of Cheadle Road, Upper Tean. This land is hereafter referred to as the Site.

2.0 LEGISLATIVE AND PLANNING POLICY CONTEXT

Wildlife and Countryside Act 1981 (as amended)

- 2.1 All common reptile species, including slow worm *Anguis fragilis*, common lizard *Zootoca vivipara*, adder *Viper berus* and grass snake *Natrix helvetica*, are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended)¹ and are subsequently afforded partial protection by Sections 9(1) and 9(5) of the Act. This makes it an offence to:

- Intentionally kill or injure any wild animals of these four common reptile species; or
- To sell, offer for sale, possess or transport for the purpose of sale, or publish advertisements to buy or sell any wild animals of these species.

- 2.2 This partial protection does not directly protect their habitat; however, where these animals are known to be present mitigation measures should be formulated to ensure that reasonable measures to avoid harm to animals have been implemented.

Natural Environment and Rural Communities (NERC) Act 2006.

- 2.3 All common reptile species are included on the list of species which are of principal importance for the conservation of biodiversity in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006²; they are therefore 'priority species'. The S41 list is used to guide decision-makers, including local planning authorities, in implementing their duty under section 40 of the Act, to have regard to the conservation of biodiversity in England when carrying out their normal functions.

National Planning Policy Framework (NPPF)

- 2.4 The NPPF considers 'priority species' in paragraph 179, and states that plans forming part of the planning system should:

"...b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species..." [para. 179 b)].³

3.0 METHODOLOGY

- 3.1 Establishing the baseline conditions for reptiles has involved:
- A desk study to search for any existing records for reptiles from within the Site and the wider local area;
 - Assessment of the value of habitats for reptiles; and
 - A strategic reptile presence/absence survey.

Desk Study

- 3.2 A data search was requested from Staffordshire Ecological Record (SER); the results are provided within the Ecological Appraisal report with species records mapped on Figure 10300-E-01.

Habitat Assessment

- 3.3 Whilst reptiles occupy a wide range of broad habitat types, structural diversity is a key requirement for most reptiles, and this only really occurs where there is a variety of habitats in close association with one another. A mix of open areas with more closed vegetation, with the transition between habitats gradual and variable, provides ideal conditions⁴. These transitions, known as ecotones, are particularly important; an example would be short, rabbit-grazed grassland merging with taller grassland abutting a bramble edge to dense scrub. Other features which increase the suitability of an area for reptiles include a varied topography with sunny banks, and suitable hibernacula like mammal holes and rubble piles. The suitability of the Site to support reptiles was assessed by the presence/absence of these features.

Field Survey

- 3.4 A strategic reptile presence / absence survey was undertaken at locations identified as offering potential habitat within the Site. The survey was undertaken based on methodology detailed in the *Herpetofauna Workers Manual*⁵ and the *Froglife Advice Sheet 10*⁶. This involves walking quietly along a transect route through areas of suitable reptile habitat searching for basking reptiles on existing suitable refugia and on/under strategically positioned refugia which have been set out as part of the survey.

- 3.5 The introduced refugia (0.5m x 0.5m squares of roofing felt) were placed in locations offering the most suitable habitat for common reptiles, e.g. ecotones; areas forming a natural sun-trap; and areas of bare ground/short vegetation close to more dense stands of vegetation.



- 3.6 The Site extends to c.3.6ha but the grassland fields along the east side were not considered to provide suitable conditions for reptiles leaving c.2.0ha of mostly unmanaged land on the west side of the Site where suitable conditions existed. A total of 26 refugia were used in this area, which exceeded the 5-10 refugia/hectare of suitable habitat recommended for general surveying purposes. Their locations are shown on Figure 10300-E-03.
- 3.7 The refugia were set out on 29th April 2022 and allowed several weeks to 'bed-in' undisturbed before the survey checks began. These checks involved cautiously approaching refugia and avoiding casting a shadow, so as to not disturb basking animals before they had been seen. Inspection of the refugia involved lifting the felt to check for animals underneath, and then replacing it carefully to avoid harm to any animals sheltering underneath.
- 3.8 Survey visits took place when the weather conditions were suitable. Optimum conditions being temperatures between 10°C and 17°C, intermittent or hazy sunshine, and little or no wind.

Typically, between 09:00-11:00 hrs and 16:00-19:00 are when these temperature ranges can be expected.

- 3.9 A series of 7 survey checks were undertaken between 16th May and 29th July 2022. The survey dates and weather conditions are provided in Table B1.

Table B1: Reptile Presence/Absence Survey Conditions

Survey	Date	Time	Start Temp. (°C)	Wind (Beaufort)	Percentage Cloud Cover	General Conditions
1	16/05/2022	10:30	14	1/2	90-100	Rain Earlier in the Day
2	07/06/2022	17:00	19	2/3	70-80	Clear, Bright, Sunny
3	13/06/2022	10:30	14	1/2	80-90	Bright
4	30/06/2022	10:22	17	1/2	50-60	Clear, Bright, Sunny
5	05/07/2022	16:37	17	1/2	10-20	Clear, Bright, Sunny
6	26/07/2022	16:45	19	1/2	10-20	Clear, Bright, Sunny
7	29/07/2022	09:30	16	1/2	90-100	Bright, Rain Earlier in the Day

Population Assessment

- 3.10 Reptile populations were assessed in accordance with population level criteria used for the Key Reptile Site Register⁶. This system classifies populations of individual reptile species into three categories for assessing population importance (Table B2). These are based on the total number of adult animals observed during individual survey occasions.

Table B2: Key Reptile Site Survey Assessment Categories

Species	Low Population (No. of individuals)	Good Population (No. of individuals)	Exceptional Population (No. of individuals)
Adder	<5	5 - 10	>10
Common lizard	<5	5 - 20	>20
Grass snake	<5	5 - 10	>10
Slow worm	<5	5 - 20	>20

Survey Limitations

- 3.11 On several occasions a small number of the refugia could not be located during the survey checks, possibly having been blown away by the wind or covered by vegetation, requiring replacements to be deployed. As the number of refugia/ ha of suitable habitat exceeded that recommended, this was not considered to represent a significant constraint to the survey.

4.0 RESULTS

Desk Study

- 4.1 There were no records for reptiles within the data provided by the Staffordshire Ecological Record.

Habitat Assessment

- 4.2 The tall ruderal herb, marsh/marshy grassland, areas of scattered scrub and the interfaces with blocks of woodland and scrub on the west side of the Site provided suitable habitat for reptiles.

Presence/Absence Survey

- 4.3 No reptiles were recorded during the seven survey checks, and no incidental records for reptiles were made during other ecological surveys undertaken by FPCR during 2022.
- 4.4 Two adult common toad *Bufo bufo* were recorded during the 5th July survey and two adults and six juveniles during the 26th July check. On 29th July eleven juveniles were recorded.

5.0 DISCUSSION

- 5.1 The absence of any records for reptiles from within the Site or immediate local area, and none recorded during the targeted survey, indicates that reptiles are likely to be absent from the Site.
- 5.2 Common toad are a Species of Principal Importance for biodiversity conservation. As most of the suitable habitat within the Site is in the area to the west which will remain undeveloped, it is not considered that the proposal would have a significant impact on this species.

6.0 CONCLUSIONS

- 6.1 Reptiles are likely to be absent from the Site, so if development is approved, no mitigation measures are required or this species group.
- 6.2 Most of the suitable habitat for common toad will remain undeveloped and therefore impacts on this priority species are considered to be negligible.

7.0 REFERENCES

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- ¹ The Wildlife and Countryside Act 1981 (as amended). London: HMSO. <http://www.legislation.gov.uk/ukpga/1981/69>
- ² Natural Environment and Rural Communities Act 2006. London: HMSO. <http://www.legislation.gov.uk/ukpga/2006/16/contents>
- ³ Ministry of Housing, Communities and Local Government. (2021). *National Planning Policy Framework*. London: Ministry of Housing, Communities and Local Government. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf
- ⁴ Edgar, P., Foster, J., & Baker, J. (2010). *Reptile Habitat Management Handbook*. Bournemouth: Amphibian and Reptile Conservation.
- ⁵ Gent, T. & Gibson, S. (Eds.) (2012). *Herpetofauna Workers' Manual*. Exeter: Pelagic Publishing

⁶ Froglife. (1999). *Froglife Advice Sheet 10: An introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife



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Key

- Site Boundary
- Artificial Refugia Location
- Toad Recorded

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client

Keepmoat

project

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Upper Tean

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