



Lagan Homes

Land West of Ratby, Leicestershire

REPTILE REPORT

August 2024

FPCR Environment and Design Ltd

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1.0 INTRODUCTION

- 1.1 The following report has been prepared by FPCR Environment & Design Ltd. on behalf of Lagan Homes and provides details of reptile surveys carried out on land to the west of Ratby, Leicestershire (Central grid ref: SK 50744 06004), herein referred to as the site.
- 1.2 This report should be read in conjunction with the Ecological Appraisal¹ for the Site.

Site Location and Context

- 1.3 The site is approximately 33 ha in size, dominated by farmland including arable fields and pastureland, bounded, and divided by hedgerows. Field compartments to the north of Burroughs Road comprised temporary grass and clover ley, with woodland and willow plantation present to the northwest. Habitats to the south of Burroughs Road were dominated by grassland, with cattle present to the south. Several mature trees were noted within hedgerows and field compartments. The surrounding landscape is dominated by woodland, arable and pastureland with the village of Ratby located to the north and east. A small stream is located between the two redline compartments, which flows under Burroughs Road and through mature woodland bordering the site to the southwest.

Development Proposals

- 1.4 Proposals include an outline planning application (with all matters reserved apart from access) for a phased, mixed-use development comprising about 470 dwellings (Use Class C3) or, in the alternative, about 450 dwellings and care home (Use Class C2). Provision of land for community hub (Use Class F2); provision of land for 1FE primary school (Use Class F1); and associated operations and infrastructure including but not limited to site re-profiling works, sustainable urban drainage system, public open space, landscaping, habitat creation, internal roads/routes, and upgrades to the public highway.

2.0 LEGISLATION

- 2.1 All common reptile species, including slow-worm *Anguis fragilis*, common lizard *Zootoca vivipara*, and grass snake *Natrix helvetica*, are partially protected under Sections 9(1) and 9(5) of Schedule 5 of the Wildlife and Countryside Act 1981 (as amended)². This legislation protects these animals from:
- intentional killing and injury;
 - selling, offering for sale, possessing or transporting for the purpose of sale or publishing advertisements to buy or sell a protected species.
- 2.2 This partial protection does not directly protect the habitat of these reptile species. Where these animals are present on land that is to be affected by development, the implications of legislation are that providing that killing can reasonably be avoided then an operation is legal.

¹ FPCR (2024) Land West of Ratby, Leicestershire Ecological Appraisal

² The Wildlife and Countryside Act 1981 (as amended). [Online]. London:HMSO Available at <http://www.legislation.gov.uk/ukpga/1981/69>

- 2.3 All reptile species are Species of Principal Importance under Section 41 of the NERC Act (2006)³.

3.0 METHODOLOGY

Desk Study

- 3.1 The desktop study involved collating biodiversity information from the following sources:
- The Leicestershire Environmental Records Centre (LERC)
 - The Multi Agency Geographic Information for the Countryside (MAGIC) website (www.magic.gov.uk).Field Survey

Field Survey

Habitat Suitability

- 3.2 An assessment of reptile habitat suitability was undertaken as part of the Extended Phase 1 habitat survey of the site on the 5th and 6th of October 2023.

Reptile Presence/Absence Survey

- 3.3 A strategic reptile presence/absence survey was undertaken at specific locations offering potential habitat within the application site boundary. The survey was undertaken based on methodology detailed in the *Herpetofauna Workers Manual* (Gent and Gibson, 1998)⁴ and the *Froglife Advice Sheet 10 - Reptile Survey* (Froglife 1999)⁵. The artificial refugia used were 1.0m by 0.5m sections of roofing felt with a black upper side. A total of 170 artificial refugia were placed within the survey area amongst habitats considered most suitable for reptiles to confirm presence/absence; the location of refugia is shown in Figure 1. The artificial refugia were left *in situ* for two weeks prior to surveys commencing, to allow any reptiles in the area to become accustomed to their presence and begin using them as basking spots.
- 3.4 All of the surveys were undertaken between April and June 2024 by suitably experienced ecologists. The surveys were carried out in appropriate weather conditions i.e. air temperature between 9°C and 18°C, no strong wind or heavy rain. As per the guidelines, seven surveys were undertaken.
- 3.5 In addition, the surveys also followed the guidelines' recommendations by:
- Using regularly spaced roofing felt (0.5m²) as artificial refugia, with a black upper side,
 - Approaching refugia from downwind and avoiding casting a shadow and with care so as to not disturb basking animals when checking,
 - That lifting and replacing naturally occurring or artificial refugia, to check for the presence of reptiles, is undertaken with care as to avoid potential harm to any animals.

³ The Natural Environment and Rural Communities Act 2006. [Online]. London: HMSO Available at: <http://www.legislation.gov.uk/ukpga/2006/16/contents>

⁴ (2003) *Herpetofauna Workers Manual*

⁵ Froglife (1999) *Reptile Survey: An introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10.*

Table 1: Survey Dates and Weather Conditions 2024

Survey	Date	Time	Temp. (°C)	Cloud (%)	Rain	Wind
Setup	18.04.24	N/A	N/A	N/A	N/A	N/A
1	29.04.24	AM	12	60-70	None	Light Breeze
2	08.05.24	PM	18	20- 30	None	No Wind
3	15.05.24	AM	13	90- 100	None	Light Air
4	20.05.24	PM	14	60-70	None	Light Breeze
5	27.05.24	PM	15	60-70	None	Light Air
6	13.06.24	PM	14	60-70	None	Light Breeze
7	21.06.24	AM	16	0	None	No wind

Survey Limitations

- 3.6 Surveys 6 and 7 were undertaken outside of the optimal survey period (April, May and September) in June, but within the reptile active season. Reptile species are still active during summer, however, can be under recorded where temperatures are high, and use of artificial refugia/ basking occurs less frequently. All surveys were undertaken during suitable weather conditions, therefore surveys conducted during this time are considered satisfactory to allow a determination of the presence or likely absence of reptile species. In accordance with the guidelines, survey visits were undertaken between 9 - 20°C with no/little wind and no/little rain.

4.0 RESULTS

Desk Study

- 4.1 Consultation with the Leicestershire and Rutland Ecological Records Centre identified five records of slow worm *Anguis fragilis* to the northeast of site. The most recent record (2022) was for a single individual, located approximately 275m northeast within Martinshaw Wood. Other records included a record from 2019 associated with surveys for new residential development to the north of Markfield Road, off Jenny's Way and records of multiple slow worms (peak count 8) in a compost heap along Markfield road from 2000.

Field Survey

Habitat Assessment

- 4.2 The onsite grassland, woodland edges and the network of hedgerows and off-site stream habitat provided suitable habitat for commuting, basking and sheltering reptiles. The compost heap within F2 also provided an area of refuge and potential breeding habitat. Habitats to the north of Burroughs Road were largely considered sub-optimal for reptiles given their arable nature, however hedgerows and field margins provided connectivity from suitable off-site habitats further north to suitable on-site habitats to the south of site.

Reptile Survey

- 4.3 During the course of the surveys no reptiles were recorded on any occasion, with all surveys completed during suitable weather conditions in April, May and June.

5.0 CONCLUSIONS

- 5.1 Although habitats within the site were considered to provide some potential suitability to reptile species, none were recorded during species specific surveys. All surveys were carried out in appropriate weather conditions, with five of the seven surveys undertaken in the optimal season. It is therefore considered likely this species group does not utilise habitats on site.
- 5.2 Records of slow worm were returned to the northeast of site with the most recent record (2022) sited c.275m away, on the other side of Markfield Road. Slow worms have a small home range⁶, with the road and recent disturbance of intervening habitats resulting from the Phase 1 development considered barriers to dispersal.
- 5.3 Based on the above, it is considered that the presence of reptiles can be reasonably discounted, therefore this species group do not pose a constraint to the proposals and no further survey or mitigation is required.

6.0 ENHANCEMENTS

- 6.1 Proposals will retain and enhance the on-site woodland, with additional habitat creation including scrub, woodland and wildflower meadow in accordance with National Forestry requirements. These habitats, in addition to the proposed native hedgerow planting and SUDs features will provide suitable commuting, foraging, and refuge opportunities for reptiles as well as other fauna; with the potential for species in the locality to populate the site in the future. The below recommendations detail additional features of design which could be implemented to enhance the site further for reptiles:
- Inclusion of brash/log piles, to be created from arising of vegetation removal, to be placed in sunny locations in areas of long grass or long grass and scattered scrub. These should be located away from areas of public access to reduce the risk of disturbance and where possible placed on a south facing bank and at the periphery of attenuation features;
 - Inclusion of artificial hibernacula and egg-laying sites in suitable locations (south facing, sunny position). Artificial hibernacula can contain a range of material such as cut timber, brash, rocks, hardcore, and grass snake egg-laying sites usually comprise decaying organic material i.e. grass cuttings, all of which should be available during vegetation clearance. These features should be placed at the transition zone between habitats to maximise their value to reptiles throughout their life cycle;
 - Where appropriate the landscaping and sensitive management of areas should ensure that longer grass swards can be maintained which are of greater value to reptiles, particularly within the less formal open space and boundary habitats. These measures will provide a range of suitable 'edge' habitats for reptiles around the boundaries of the site's green infrastructure, supplying cover, foraging and basking areas;
 - Where possible, existing and newly created woodland should be managed to provide glades and rides favoured by slow worm.
- 6.2 The above design features will lead to the creation of a habitat network which comprises habitat mosaics favoured by reptiles.

⁶ Smith, N.D. (1990). The ecology of the slow-worm (*Anguis fragilis* L.) in Southern England.



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Key

Site Boundary

Artificial Refugia Location



client
Lagan Homes
project
Land West of Ratby,
Leicestershire
drawing title
Reptile Refugia Location Plan

scale @ A3
1:4,000

drawn
SC/LTW

issue date
24/7/2024



Figure 1