AEWC Ltd

Animal Ecology & Wildlife Consultants

Reptile Survey Report

Land adjoining to Hawthorns

Maidstone Road
Borden
Kent
ME9 7QA

Natalie Arscott

24-027
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Contents

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Summary

- AEWC Ltd were commissioned by Wyndham Property Group to undertake a presence / likely absence survey for reptiles at Land adjoining Hawthorns, Maidstone Road, Borden, Kent, ME9 7QA at grid reference TQ 85987 62692 to help inform the proposed development of the site.

- This report details the results of the survey, which was carried out between the 26th June 2024 and 29th September 2024 by qualified ecologists Natalie Arscott, Paul Thrift, and Lexie Hobbs.

- Suitable habitat for reptiles was identified within the site boundary during a Preliminary Ecological Appraisal conducted in May 2024. Further surveys were therefore required in order to ascertain whether reptiles are present at the site and represent a constraint to the proposed development.

- Reptile surveys were carried out on all areas considered potentially suitable for reptiles. Artificial refugia (sheets of roofing felt) were placed in these areas and checked eight times in August and September 2024 during suitable weather conditions.

- **Reptiles were not found during the survey and, as such, there are no known constraints regarding these species and the proposed development**.

- **Due to the suitability of habitat, there remains potential for reptiles to be present at low densities or to colonise the site in the interim before development works commence. It is therefore recommended that a precautionary approach to site clearance under ecological supervision is adopted.**

1 Introduction

1.1 AEWC Ltd were commissioned by Wyndham Property Group to undertake a presence / likely absence survey for reptiles at Land adjoining to Hawthorns, Maidstone Road, Borden, Kent, ME9 7QA to help inform the proposed development of the site.

1.2 The current development plan involves the construction of three new dwellings on the site, resulting in the loss of a considerable portion of the existing modified grassland and small areas of mixed scrub and tall forbs. The access road will also cut through a narrow belt of woodland.

1.3 A Preliminary Ecological Appraisal carried out by AEWC Ltd in May 2024 identified suitable habitat for common reptiles within the site boundary. It is also surrounded by other areas of suitable habitat with good connectivity, and if any reptiles are present in the vicinity they could likely be using the habitat on the site.

1.4 Further surveys were therefore required to ascertain whether reptiles are present at the site and represent a constraint to the proposed development.

1.5 This report details the results of the reptile survey and outlines recommendations in relation to reptiles and the proposed development of the site.

Aims and objectives

1.6 The objectives of the survey were to:

- Undertake a reptile survey to determine presence / likely absence of reptiles within the proposed development site;
- Evaluate the conservation importance of the survey area in relation to reptiles;
- Provide information to inform the impact assessment of development proposals for the area; and
- Provide information for use in the design and development of ecological mitigation and enhancement measures where appropriate.

Site Location

1.7 The proposed development site is located at Land adjoining to Hawthorns, Maidstone Road, Borden, Kent, ME9 7QA at central grid reference TQ 85987 62692. The site is located in a semi-rural area to the south of Maidstone Road, 110m to the southeast of the A249 and 450m to the north of the M2. The surrounding landscape predominantly comprises a combination of residential properties, agricultural land, a network of major roads, and a golf course. See Figure 1.

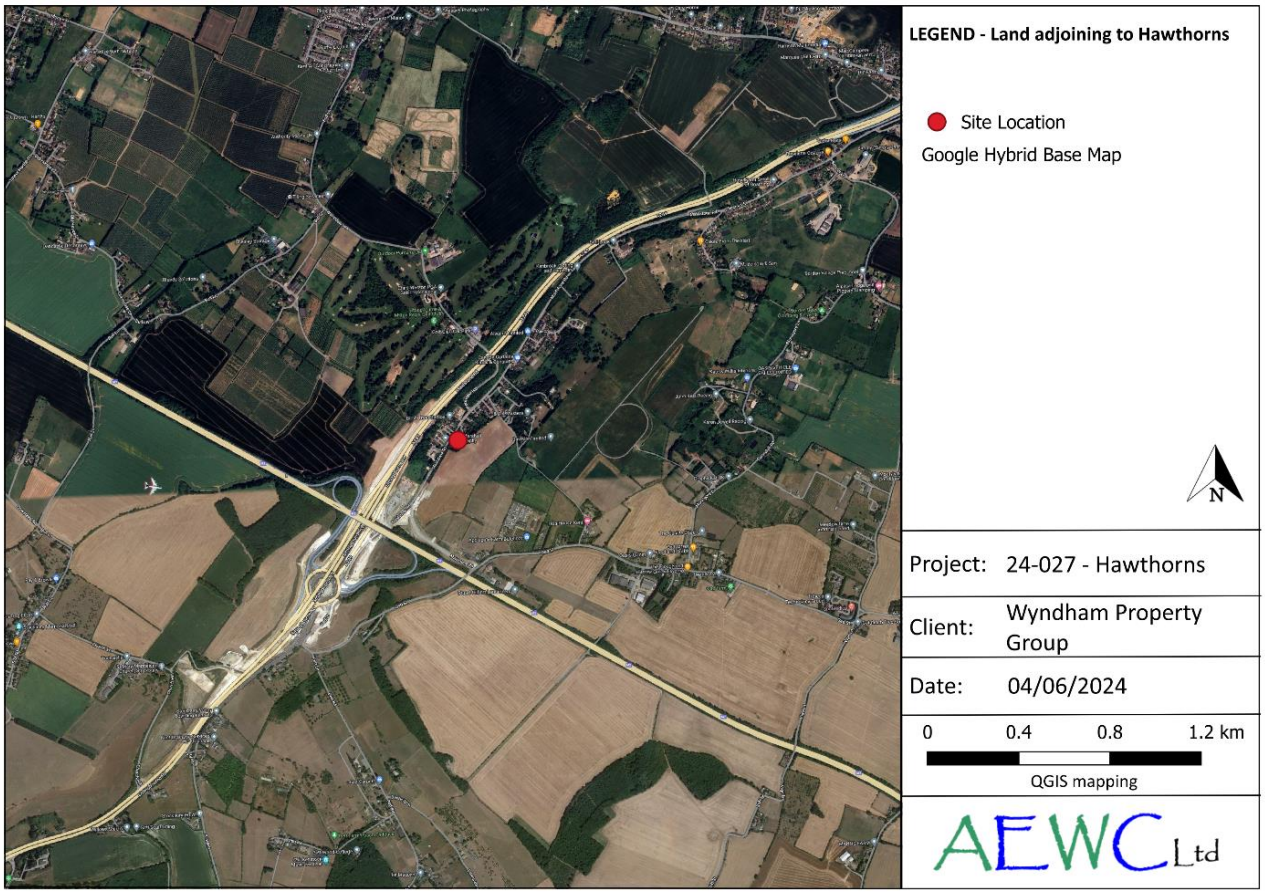


FIGURE 1: SHOWING THE LOCATION OF THE SITE

Proposed works

1.8 The proposed development plan involves construction of three new dwellings on the site. This will involve the removal of modified grassland, mixed scrub, and tall forbs. The development will retain and enhance some semi-natural habitat in the south of the site and the surrounding narrow belt of woodland. However, the majority of the habitat area on site will be affected by these proposals. See Figure 2.

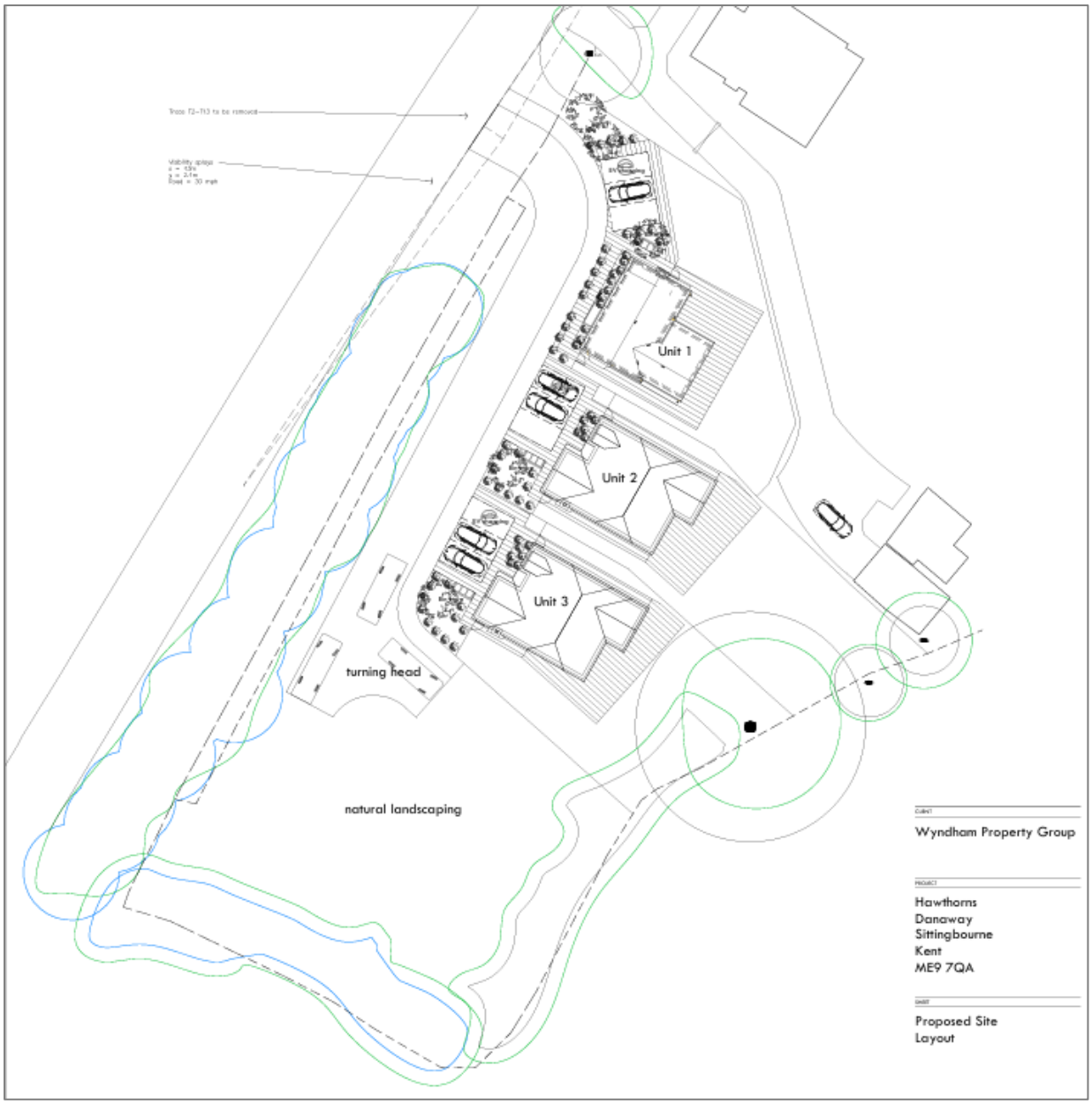


FIGURE 2: PROPOSED PLANS

Legislation

1.9 Common lizard (*Lacerta vivipara*), grass snake (*Natrix helvetica*), slow worm (*Anguis fragilis*), and adder (*Vipera berus*) are listed under *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)*, in respect of *Section 9(5)* and part of *Section 9(1)*. This protection was extended by the *Countryside and Rights of Way (CRoW) Act 2000*. Under the legislation, it is an offence to:

- intentionally or deliberately kill or injure any individual of these species; or
- sell or attempt to sell any part of these species either alive or dead.

1.10 Smooth snake *(Coronella austriaca)* and sand lizard *(Lacerta agilis)* are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)*, which affords them full protection under *Section 9*, as amended. They are also protected under the *Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*. In combination, this makes it an offence to:

- intentionally kill, injure or take (capture etc.);
- possess;
- intentionally or recklessly damage, destroy, obstruct access to any structure or place used by a scheduled animal for shelter or protection, or disturb any animal occupying such a structure or place; and
- sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

1.11 All UK reptile species are Species of Principal Importance in England under *Section 41* of the *Natural Environment and Rural Communities Act 2006*.

Habitat Requirements

1.12 A general habitat requirement of reptile species is sunny, undisturbed glades and/or slopes, usually in the vicinity of some thick cover (vegetation). Further details of species-specific habitat preference are given below:

Common Lizard

- This species occupies a large range of habitat types. Their home range is usually quite small.
- Open patches to bask in, especially piles of rubble and wood in sunny areas.
- Ground cover of ivy is especially good for lizards for feeding and to avoid predators.
- Dense but short vegetation, open to the sun.

Slow Worm

- Occupies a large range of habitat types.
- Thick ground vegetation – they bask less often than other British reptiles.
- Regularly frequent habitats influenced by man, such as railway cuttings, allotments and gardens.

Grass Snake

- This species has a large home range.
- Grass snakes are highly aquatic and are strongly associated with riparian habitat.
- Compost heaps or dung piles are good egg laying habitat for Grass Snakes.

Adder

- Light chalk or sandy soils are preferred.
- A main requirement is that the area should be undisturbed.
- Heathlands, woodlands rides and chalk down land are good habitat for adders.

Sand Lizard

- Areas of open sand dunes.
- Mature dry heath.

Smooth Snake

- Found almost exclusively in dry heathland, especially in mature stands of heather or gravely lowland heaths.

2 Method

2.1 A site visit carried out on the 26th June 2024 by Natalie Arscott of AEWC Ltd, who assessed the site for reptiles, with particular attention paid to those features that provide suitable basking areas (*e.g.* south-facing slopes), hibernation sites (*e.g.* banks, walls, piles of rotting vegetation) and opportunities for foraging (rough grassland and scrub).

2.2 Artificial refugia (sheets of roofing felt a minimum of 0.5m^2 in area) were placed in areas of suitable habitat for reptiles throughout the site in likely basking spots (for example, sunny areas near to cover). See Figure 3 for approximate location of refugia.

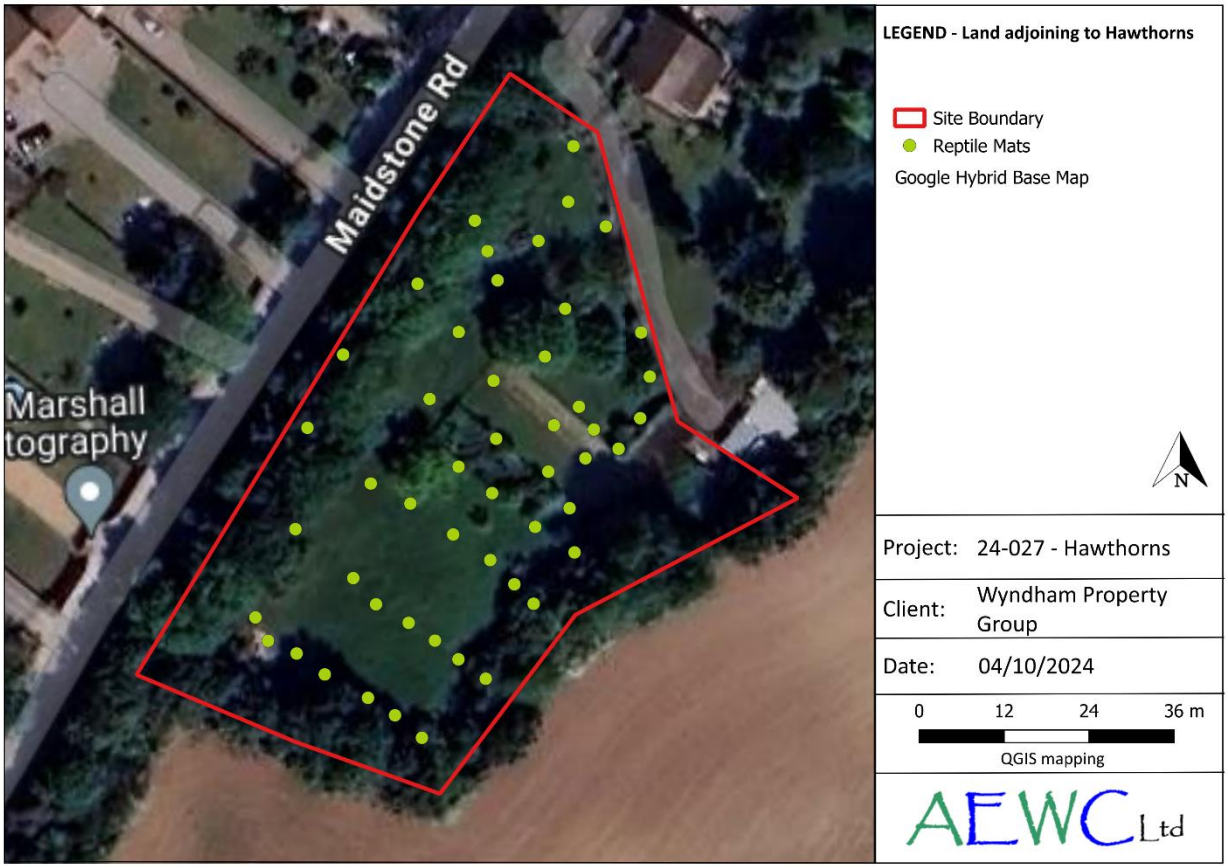


FIGURE 3: LOCATIONS OF REPTILE REFUGIA MATS

2.3 A total of 50 sheets were positioned across the site on the 26th June 2024. These sheets were located throughout the entire site in areas of habitat reptiles were considered likely to utilise. A total of eight site visits were made throughout August to September 2024 to record reptiles, the sheets were removed on the last visit.

2.4 Where possible, survey visits took place when weather conditions were most suitable for reptile surveying. The most suitable conditions are intermittent or hazy sunshine, low air temperature (10-20ºC) and little or no wind (Gent & Gibson, 1998).

2.5 Any reptiles seen basking on or sheltering underneath the refugia were noted, and species, sex and age recorded. Time was also spent observing potential basking sites for reptiles on each visit.

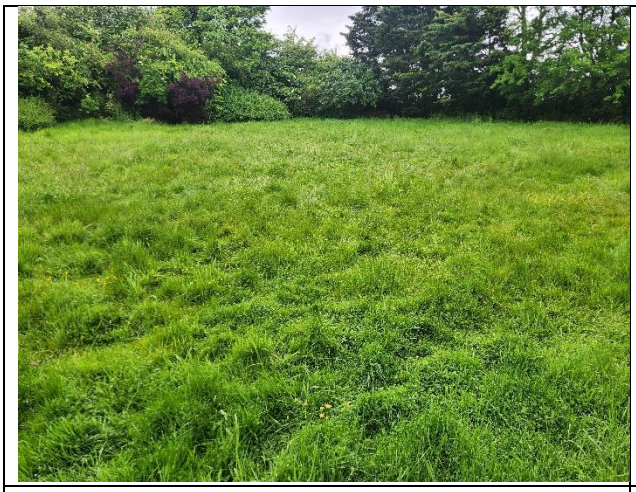
2.6 Where reptiles are found an estimate of the population size is made.

3 Constraints/Limitations

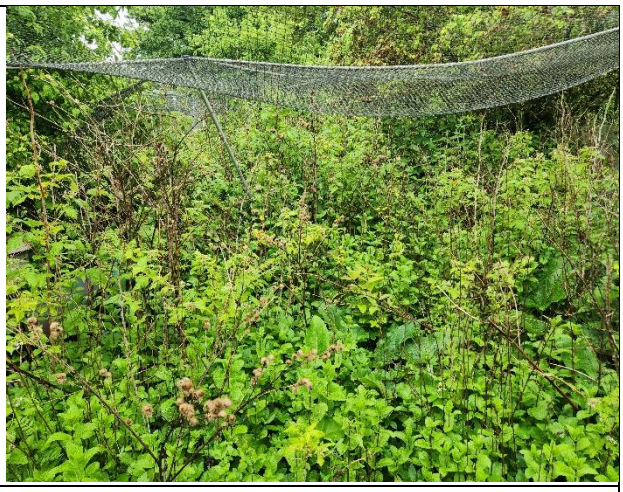
3.1 There are small areas of tall forbs and mixed scrub on the site which may hold suitability for reptiles, however the vegetation was too dense and tall in these areas to place refugia sheets. Sheets were however placed throughout the grassland area including immediately adjacent to dense vegetation.

4 Results

4.1 The site is predominantly covered by modified grassland with a sufficient sward length to support foraging reptiles. Mixed scrub, tall forbs, and boundary woodland provide more sheltered habitat. There is little in the way of good quality basking habitat. Areas of the site are also shaded by scattered trees and boundary woodland. See Photographs 1 and 2 and Table 1.



Photograph 1 – modified grassland covering most of the site.



Photograph 2 – dense scrub area in the centre of the site.

Table 1: Habitat Suitability Assessment

Reptile habitat characters	**Whole site assessment (Rank as "poor", "moderate" "good" or "exceptional)**	**Notes**
Location in relation to species range	Good	Within range of all common species.
Vegetation structure	Good	Modified grassland covered most of the site has a sufficient sward length to be used for foraging. Mixed scrub, tall forbs and woodland provide more sheltered habitat.
Insolation (sun exposure)	Moderate	There is good sun exposure in most of the southern half of the site. Scattered

		trees in the northern half create significant shading. The grassland boundaries are shaded at certain times of day by the belt of woodland.
Aspect	Moderate	The site is on a gentle incline, sloping downwards towards the northwest. This slightly reduces the warming effect of the sun at ground level.
Topography	Poor	There are no significant slopes or banks within the site to provide basking habitat.
Surface geology	Good	The site is on freely draining loamy soil, which could support burrowing.
Connectivity to nearby good quality habitat;	Moderate	The site borders agricultural land with hedge and tree lines which may support reptiles. Habitat connectivity is however reduced by a network of major roads in close proximity to the site.
Prey abundance	Good	The habitats onsite are likely to support good populations of prey species.
Refuge opportunity	Good	There are opportunities for refuge within dense vegetation and the boundary woodland on the site.
Hibernation habitat potential	Moderate	Occasional deadwood features in the boundary woodland could support hibernating reptiles.
Disturbance	Good	The site is impacted by very little human activity or management.
Egg-laying site potential (grass snake and sand lizard only).	Poor	No suitable egg-laying sites were identified.

4.2 One survey was undertaken in August and seven surveys were undertaken in September giving a survey effort score of 30 for slow worms, 31 for grass snakes, and 38 for common lizards based on tables 7 and 8 of the Reptile Mitigation Guidelines. These are above the minimum standard effort units for each species. See Figure 4.

4.3 Due to the site's location and habitat types present, it is considered highly unlikely that adder, sand lizard, or smooth snake would be present on-site.

Table 7 Minimum standard effort and recommended methods for presence/absence surveys

Reasonable chance of presence	Method(s)	Minimum standard effort units
Slow-worm	ARS	25
Common lizard	ARS + DOS	30
Sand lizard	DOS#	50
Grass snake	ARS + DOS	30
Adder	ARS + DOS	30
Smooth snake	ARS	50

Key:
* DOS = direct observation survey
ARS = artificial refuge survey
# ARS may be used in addition to DOS if sand lizard expected at high density, and refuges laid at density of at least 200/ha

Table 8 Monthly survey effort weighting

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Slow-worm	NR	NR	2	5	5	5	3	2	4	2	NR	NR
Common lizard	NR	2	3	5	5	5	4	3	5	3	NR	NR
Sand lizard	NR	NR	3	5	4	3	2	2	3	NR	NR	NR
Grass snake	NR	NR	3	4	5	5	3	3	4	2	NR	NR
Adder	NR	2	4	5	4	3	2	2	4	1	NR	NR
Smooth snake	NR	NR	3	5	5	4	3	3	4	NR	NR	NR

NR = No survey recommended: whilst surveys done in these months might locate animals, the chance of this is very low and so any such survey visits do not count towards standard effort

FIGURE 4: EXTRACT REPTILE MITIGATION GUIDELINES TABLE 7 AND 8

4.4 Table 2 shows the weather conditions recorded at the site during the surveys.

Table 2: Weather conditions during the reptile survey

Visit	Date	Time		Weather	Temp °C		Cloud cover (%)	Wind (BF scale)
		Start	Finish		Start	Finish		
1	08/28/2024	09:00	09:45	Dry and sunny	19	20	20	1
2	09/04/2024	11:30	12:00	Dry, quite overcast with some sun	18	18	90	1
3	09/08/2024	09:00	09:30	No rain, damp underfoot	15	16	75	1
4	09/12/2024	15:00	15:30	Brief rain shower shortly before survey but dry at time of check	13	13	80	1
5	09/15/2024	11:45	12:30	Dry with sun and clouds	18	18	30	1

6	09/18/2024	10:15	11:00	Dry, quite overcast with sun coming through some breaks in clouds	18	18	80	3
7	09/24/2024	10:00	10:45	No rain, damp underfoot, overcast	16	16	100	1
8	09/29/2024	11:30	12:15	Dry, slightly sunny	14	14	80	2

4.5 **No reptiles were identified on site during the surveys**.

4.6 Field voles were found beneath the reptile mats.

5 Evaluation, Conclusions & Recommendations

5.1 Reptiles were not found during the survey and, as such, there are no known constraints regarding these species and the proposed development.

5.2 However, due to the suitability of habitat, there remains potential for reptiles to be present at low densities or to colonise the site in the interim before development works commence. **It is therefore recommended that a precautionary approach to site clearance be conducted during the season when reptiles are active (typically April to September). The vegetation should be gradually and directionally cut down to around 10cm a day or so before site works, then the area should be carefully cleared with a closer cut and a toothed bucket used before deeper digs are made. Any logs, dead wood or rubble piles must be sensitively dismantled by hand and relocated to a suitable area beyond the site works. This must be supervised by an ecologist**.

5.3 The precautionary approach to site clearance will also serve to safeguard small mammals such as field voles.

6 References

British Standard Institution (2013) *BS 42020:2013 Biodiversity. Code of practice for planning and development*, London, England

CIEEM (2021) *Good Practice Guidance for Habitats and Species*. Chartered Institute of Ecology and Environmental Management, Winchester

CIEEM (2013) *Competencies for Species Survey guidance documents*. Chartered Institute of Ecology and Environmental Management, Winchester

CIEEM (2018) *Professional Guidance Series: Guidance on metadata Standards: Reporting, sharing and archiving ecological data.* Chartered Institute of Ecology and Environmental Management, Winchester

CIEEM (2017) *Guidelines on Ecological Report Writing.* Chartered Institute of Ecology and Environmental Management, Winchester

CIEEM (2018) *Technical Guidance Series. Guidelines for Preliminary Ecological Appraisal.* Chartered Institute of Ecology and Environmental Management, Winchester

CIEEM (2022) *Code of Professional Conduct*. Chartered Institute of Ecology and Environmental Management, Winchester

Department for Communities and Local Government (2021) *Technical Guidance to the National Planning Policy Framework.* Department of Communities and Local Government, London.

Department for Communities and Local Government (2021). *National Planning Policy Framework.* Department of Communities and Local Government, London.

English Nature (2004) *Reptiles: Guidelines for developers.* English Nature, Peterborough.

Froglife (1999) *Reptile survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation.* Froglife Advice Sheet 10. Froglife, Halesworth.

Gent, T. & Gibson, S. (eds) (1998) Herpetofauna Workers' Manual. JNCC, Peterborough, UK.

Herpetofauna Groups of Britain and Ireland (1998) *Evaluating local mitigation/translocation programmes: Maintaining best practice and lawful standards. HGBI Advisory notes for Amphibian and Reptile Groups (ARGs)* HGBI, c/o Froglife, Halesworth. Unpublished.

Natural England (2011) *Reptile mitigation guidelines Technical Information Note TIN102*. Natural England, Peterborough.