Land at Sayers Common

Reptile Presence/Likely Absence Survey 2025

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LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

1.1 The Ecology Partnership was commissioned by Wates Development Ltd to undertake a reptile presence/likely absence survey for land west of Shoreham Road, Small Dole, West Sussex BN5 9YH. This follows previous surveys in 2014 which identified a 'low' population of slow worms (PJC Ecology 2014) and in 2022, which identified 'low' populations of slow worm and grass snake on site.

1.2 This report presents the results of the reptile surveys on site, which aims specifically to provide updated data on how reptile are using the site in 2025.

1.3 This report comprises:

- Introduction, including the legislative and planning context (Section 1);
- Assessment methodology (Section 2);
- Results of reptile surveys (Section 3);
- Discussion and recommendations (Section 4);
- Conclusions (Section 5).

Site Context and Status

1.4 The site lies to the west of the village of Small Dole, West Sussex, BN5 9YH (TQ 21331 13112). The site covers approximately 5.2ha and consists of a grassland field with scrub and woodland boundaries.

1.5 The approximate red line boundary of the development site is shown in Figure 1 overleaf.

Description of Proposed Development

1.6 The current proposals for the site are for a residential development in the southern section of the site, with landscaping and open space in the northern section of site.

Figure 1: Approximate location of the site boundary.

Legislation

1.7 In the UK, there are six native reptile species. The four widespread species are adder (*Vipera berus*), grass snake (*Natrix helvetica*), common lizard (*Zootoca vivipara*) and slow worm (*Anguis fragilis*). The two rare species are smooth snake (*Coronella austriaca*) and sand lizard (*Lacerta agilis*).

1.8 The widespread reptiles are protected under the Wildlife and Countryside Act 1981 (as amended) against intentional killing and injuring and the sale of a wild reptile or any part of such animal. The rare reptiles also receive legal protection under the Conservation of Habitats and Species Regulations 2010 against deliberate injury, killing, capture or disturbance of a rare reptile and damage or obstruction of any place used for shelter or protection.

1.9 All six reptile species are also listed as species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, which means local authorities have a legal duty to take their conservation into account.

2.0 Methodology

2.1 A terrestrial survey of the site for reptiles was carried out over seven survey visits between 29th April and 10th June 2025. Prior to the commencement of the survey, the site was set up with artificial refugia (roofing felt) for reptiles on 14th April 2024, with a total of 150 mats placed around the site at 10m intervals. The approximate mat placement route is marked in yellow in Figure 2.

Figure 2: Locations of the reptile mats during the survey (yellow dash) on site (red line).

2.2 The mats were left in place for a bedding-in period of two weeks prior to the commencement of the reptile survey, achieving the required period as per standing advice from Natural England.

2.3 The timing and number of surveys completed were based on guidelines produced by Froglife (1999), in which a total of seven survey visits should be carried out to check the refugia for the presence of reptiles within the recommended weather conditions of dry and

between 8 ◦C and 18◦C. On each visit to the site one circuit to check all refugia was carried out and a visual search was made of suitable habitat between the refugia. Surveys were completed over the months of April, May and June which is optimal for the three most likely species of reptiles (slow-worms, common lizards and grass snakes).

2.4 A total of 100 mats were placed out over an area of 5.5ha, representing a density of 18/ha. As such, the density of refugia for the suitable habitat surveyed over the course of the seven visits exceeded the recommended 10/ha of suitable habitat (Froglife 1999).

3.0 Results

3.1 Table 1 below documents the timing and weather conditions of the reptile survey visits, while Table 2 documents reptiles identified on site during the survey.

Table 1: Reptile survey results (2025)

Visit	Date	Temperature (°C)	Weather
Refugia set-up	14/04/2025	-	-
1	29/04/2025	14	0% cloud cover, wind 0
2	06/05/2025	11	100% could cover, 1-2 wind
3	13/05/2025	15	40% cloud cover, wind 1
4	20/05/2025	14	5% cloud cover wind 4
5	28/05/2025	16	100 % cloud cover, wind 1
6	03/06/2025	14	20% cloud cover, wind 1
7	10/06/2025	17	90% cloud cover, wind 3

Table 2: Reptile survey results

Date	Slowworm			Grass Snake			Common Lizard
	Male	Female	Juvenile	Male	Female	Juvenile	Adult
29/04/2025	**1**	**2**	**1**				
06/05/2025	**1**						
13/05/2025	**1**	**1**	**2**			**1**	
20/05/2025		**1**	**2**			**2**	**1**
28/05/2025	**3**	**1**	**1**		**1**	**1**	
03/06/2025	**1**			**1**	**1**		
10/06/2025	**4**	**9**					
Peak count adults	13 (10/06/2025)			2 (28/05/2025)			1 (20/05/2024)
Population	Good			Low			Low

3.2 A peak count of 13 adult slow worms, 2 adult grass snakes and 1 adult common lizard was observed during the survey period.

4.0 Discussion

4.1 The Key Reptile Site Register is a mechanism designed to promote the safeguard of important reptile sites. The criteria for site selection are given below, including a table which allows the classification of the relative size of reptile populations on the basis of survey counts. To qualify for the Key Reptile Site Register, the site in question must meet at least one of the following criteria:

1. Supports three or more reptile species
2. Supports two snake species
3. Supports an exceptional population of one species (see table)
4. Supports an assemblage of species scoring at least 4 (see table)
5. Does not satisfy 1-5 but which is of particular regional importance due to local rarity (e.g., in the East Midlands of England, adders are very rare so even "low" populations should be designated as Key Sites)

4.2 The size of the reptile population can be estimated using the Froglife (1999) scoring system. This system assumes a density of 10 refugia per hectare, which is exceeded within this survey, so the population class assessment should be interpreted with caution. A population size class assessment, which is based on the number of adults recorded in one survey visit can be made using Table 3.

Table 3: Population class assessment categories (Froglife, 1999)

	Low population (Score 1)	Good population (Score 2)	Exceptional population (Score 3)
Adder	<5	5 - 10	>10
Common lizard	<5	5 - 20	>20
Grass snake	<5	5 -10	>10
Slow-worm	<5	5 - 20	>20

Figure 3: Locations of reptiles found within the site.

4.3 A peak count of thirteen adult slow worms were recorded on site, which classes as a 'good' population of slow worms. A peak count of two grass snakes were recorded on site, which classes as a 'low' population of grass snakes. A peak count of one adult common lizard was recorded on site, which classes as a 'low' population of common lizard. No other reptiles were recorded on site.

Mitigation Strategy

4.4 The proposals for the development are for the construction of a residential housing estate, in the southeastern section of site. Since works will affect reptile habitat, where a significant number of reptiles were found, an appropriate mitigation strategy must be followed to avoid harming reptiles. It is considered viable that the reptile population could be supported on site post development within an area of flower-rich grassland and scrub habitat along the edges of the site. The northern and western site boundaries should be managed to support reptiles. If a hibernaculum is created in this area, it could be used as a safe receptor site for the reptiles during the works.

4.5 All areas of the site which would be subject to the use of heavy machinery, ground excavation or storage of materials should be fenced off from surrounding retained/protected habitats with reptile fencing (Figure 4). The site should then be set up with artificial refugia and allowed for the refugia to bed in before trapping can begin. The HGBI guidelines (1998) state that for a <50/ha population of slow worms there should be an artificial refugia density of 50 per hectare and a translocation should be undertaken on suitable days between March and September inclusive, for a minimum of 60 suitable days. Reptiles captured will be released in the pre-designated receptor area.

4.6 Once the trapping is complete all refugia should be removed from the works area, and any remaining vegetation on site cut to 100mm, with all works under the supervision of an ecologist. After a 24-hour period the destructive search can begin. This would involve a toothed bucket excavator carefully stripping away the topsoil under the supervision of a suitably qualified ecologist. Any reptiles found during this process would be carefully captured and transported to the receptor site. Other than a small section for access, exclusion fencing should remain in situ throughout the construction period and removed only once all ground-level construction works and landscaping have been completed, or

where landscaping works overlap the fences area. Once removed, it will allow reptiles to recolonise the newly created flower-rich grassland habitat within the main works area. Together with the enhanced grassland habitat outside the works area this would represent a net-gain in reptile habitat on site.

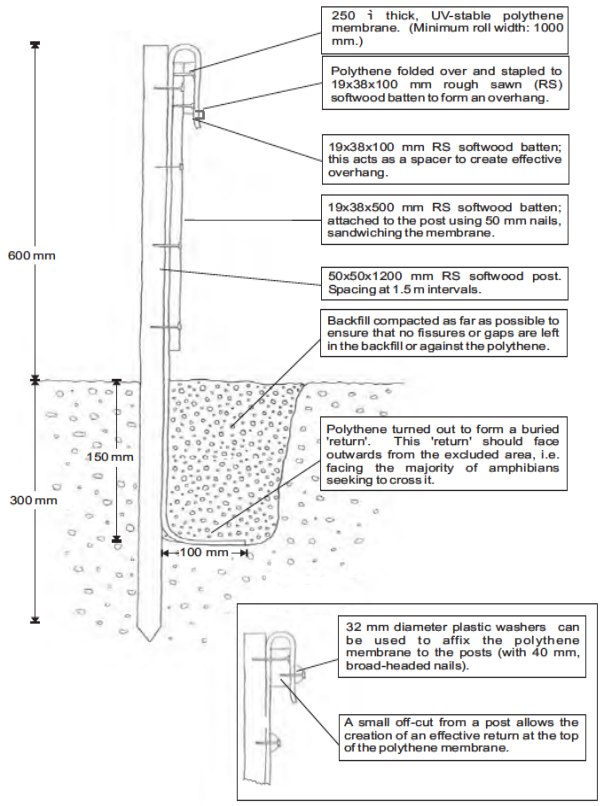

Figure 3: Reptile fence line standards

Reptile habitat creation

4.7 There are several ways in which the receptor area and the new grassland habitat within the works area can be designed for reptiles as outlined below. The receptor area will need to be suitable for reptiles prior to the start of the translocation.

Grassland Management

4.8 Areas of grassland and scrub can be managed in such a way as to improve opportunities for foraging reptiles. The grassland should be left unmanaged and not mown to allow the grassland to develop into a taller sward.

4.9 Once landscaping on site has been completed and the reptile fencing removed, long-term management of the grassland will need to balance avoiding harm to reptiles, whilst

promoting botanical diversity. As such, any hay cuts in the late summer should be no lower than 150mm height and should be staggered across the site to ensure that the whole site is not cut at the same time, but, instead a different section in July, August and September. To avoid overdominance of taller grass species the majority of the grassland should be maintained at 50mm from late October to early May, when reptiles will be hibernating and less vulnerable to disturbance. Areas of the grassland around log piles, scrub and fences should be left to grow and become tussocky which provides cover from predators as well as increasing invertebrate abundance and diversity.

Hibernacula Creation

4.10 It is recommended that log piles and brash piles be established in the receptor area prior to the translocation, with more created throughout the wider site once landscaping has been completed and reptile fencing removed. These will be used as refugia and hibernacula by reptiles, amphibians, mammals and invertebrates. Log piles (Figure 4) should be located in a variety of locations and should be stacked with leaf litter or brash.

Figure 4: Examples of log piles that can be located at the edges of the site

4.11 It is recommended that a detailed reptile mitigation strategy is agreed with the local planning authority prior to development as part of pre-commencement conditions. This should include full details of the extent of the trapping area and receptor area. The planning authority would then be informed once the translocation has been successfully completed.

5.0 Conclusions

5.1 A good population of slow worms, and a low population of grass snakes and common lizards were identified on site during the seven site visits in April-June 2024. No other reptile species were found on site. To ensure no reptiles are harmed by the development, a translocation will be required.

5.2 An on-site reptile receptor area will need to be made suitable to receive reptiles prior to trapping, following a period which allows the grass to grow long, as well as installation of log/brash piles. The translocation will require reptile fencing to be established around the main works area and trapping to take place over at least 60 suitable days between March and October followed by a period of five clear days. Once the translocation is complete, the main works area can be sensitively cleared under ecological watching brief. It is considered that if this mitigation strategy is followed, then the favourable conservation status of reptiles will be maintained.

6.0 References

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