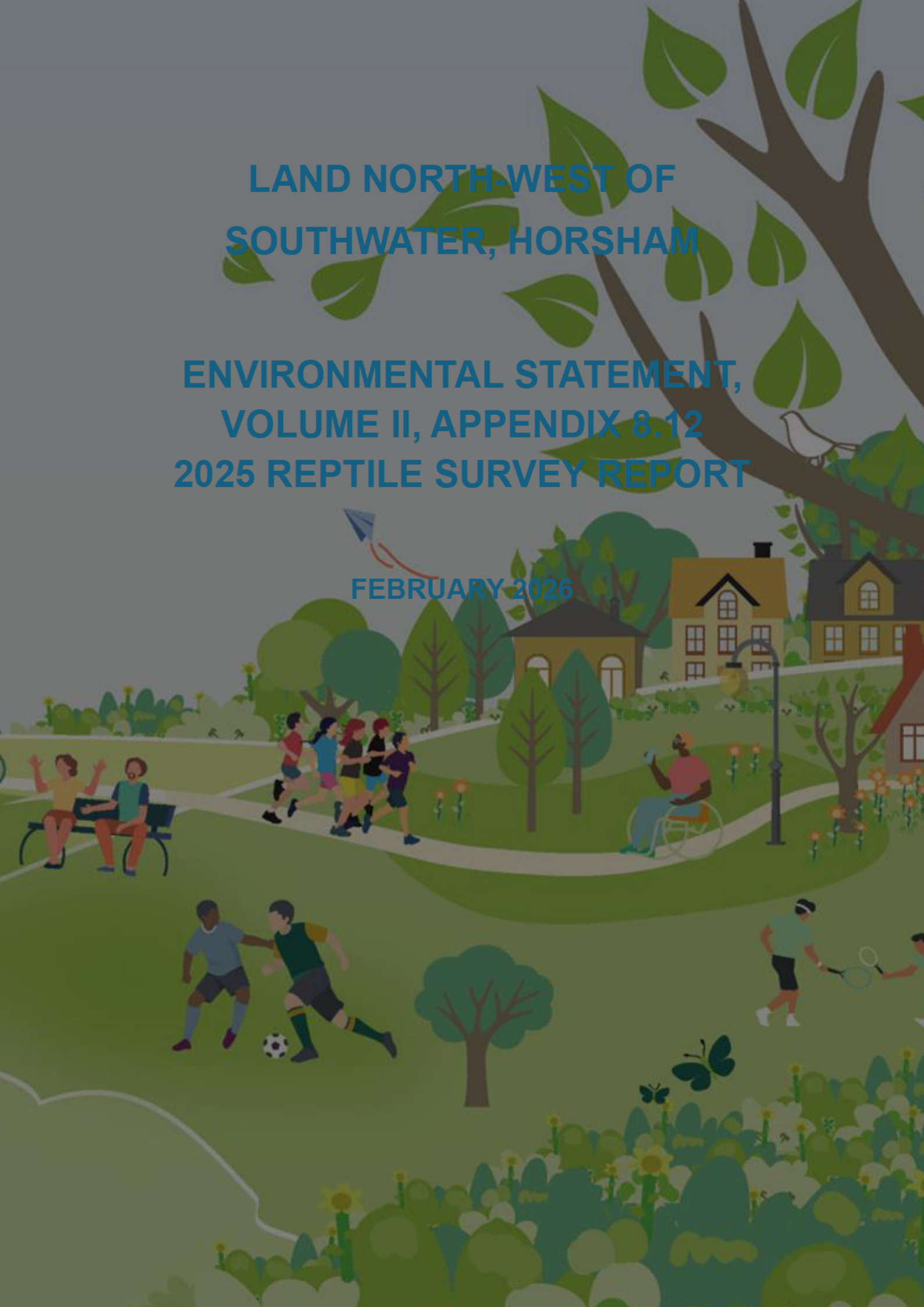
LAND NORTH-WEST OF SOUTHWATER, HORSHAM

ENVIRONMENTAL STATEMENT, VOLUME II, APPENDIX 8.12 2025 REPTILE SURVEY REPORT

FEBRUARY 2026



Landscape Architecture
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LAND NORTH-WEST OF SOUTHWATER, HORSHAM

2025 REPTILE SURVEY REPORT

Prepared for Berkeley Strategic Land Ltd

by

Hankinson Duckett Associates

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hankinson duckett associates
t 01491 838175 f 01491 838997 e consult@hda-enviro.co.uk w www.hda-enviro.co.uk
The Stables, Howbery Park, Benson Lane, Wallingford, Oxfordshire, OX10 8BA

Hankinson Duckett Associates Limited Registered in England & Wales 3462810 Registered Office: The Stables, Howbery Park, Benson Lane, Wallingford, OX10 8BA

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1 INTRODUCTION

1.1 Site location and summary description

1.1.1 This report describes an updated reptile survey within approximately 116ha of land north-west of Southwater, Horsham, West Sussex, hereinafter referred to as 'the site'. The site centre is located by National Grid Reference TQ154274. The study was commissioned by Berkeley Strategic Land Ltd in April 2025.

1.1.2 The site is split into a main site and a smaller area. The main site lies on the north-western edge of the village of Southwater and comprises a series of arable fields, semi-improved grassland fields, and improved grassland fields bordered by hedgerows, treelines and fence lines. Other habitats present include areas of broadleaved woodland, mixed woodland, and tall ruderal vegetation. In addition, Marlpost Gill flows in a southerly direction through the western part of the site and a second stream flows east to west through the north. The main site is bordered to the west by agricultural land and Two Mile Ash road and associated residential properties, beyond which are arable fields; to the north by the A24, industrial units, and agricultural land; to the south by Kirsty's Wood, and Bonfire Hill road with associated residential properties and grassland fields; and to the east by Worthing Road, beyond which is the settlement of Southwater.

1.1.3 The smaller area of the site measures approximately 1.35ha in size and is located approximately 800m to the north-west of the main site near Christ's Hospital railway station. This area comprises part of a grassland field and is bordered to the north by woodland; to the east by grassland fields; to the west by a public right of way and access road with residential properties and Christ's Hospital station car park beyond, and to the south by residential properties.

1.1.4 This report covers the reptile survey of the main site carried out in September 2025. The smaller area to the west has also been subject to a separate reptile survey, also carried out in September 2025 and this is to be the subject of a separate report (HDA, 2026). The location and boundary of the main site are shown in *Appendix A*.

1.2 Background and legislative context

1.2.1 Four species of reptile are widespread in England, Grass Snake *Natrix natrix*, Slow-worm *Anguis fragilis*, Common Lizard *Zootoca vivipara* and Adder *Vipera berus.* The Sand Lizard *Lacerta agilis* and Smooth Snake *Coronella austriaca* are restricted to certain sand dune and heathland sites.

1.2.2 Reptiles can be found in a range of habitats and typically require a mosaic of vegetation types. Habitat interfaces are important with reptiles requiring woodland, scrub or hedgerow for shelter, with adjacent longer vegetation for hunting and patches of sheltered

short turf, bare ground or log piles for basking areas. Areas which catch the sun (i.e. those with a southerly aspect) are preferred over those where direct sunlight is absent for most of the day. In addition, Grass Snakes favour damp habitats such as those associated with still and running water, grazing marshes, mires etc.

1.2.3 All species of reptile are protected through Sections 9(1) and 9(5) of the 1981 Wildlife and Countryside Act (as amended). It is an offence to:

- Intentionally kill or injure any reptile; and/or
- Sell, offer for sale, possess or transport for the purposes of sale or publish advertisements to buy or sell any reptile.

Due to their rarity, Sand Lizards and Smooth Snakes have additional protection.

1.2.4 Reptiles across the UK have undergone significant declines in recent years and all native reptile species are listed as priority species on the UKBAP and identified as Species of Principal Importance under Section 41 of the 2006 Natural Environment and Rural Communities (NERC) Act. Section 40 of the NERC Act requires that these species are a material consideration in the planning process.

1.3 Development proposals

1.3.1 Outline planning application, with all matters reserved (except for primary access to the highway) for a phased development comprising: the demolition of existing buildings and the construction of residential dwellings (including affordable housing) (Use Classes C2 and C3); a mixed-use neighbourhood centre (Use Classes E and F); education facilities (Use Class F1(a)); business and employment floorspace (Use Classes B2, B8 and E(g)); redevelopment of existing agricultural buildings including construction of a building for community use (Use Class F2); improvements to public rights of way; sports pitches; gypsy and traveller pitches/plots; public open space; landscaping, and associated infrastructure.

1.4 Scope and purpose of the report

1.4.1 The updated desk study carried out in 2025 identified records of Slow-worm, Grass Snake, Adder and Common Lizard within 2km of the site. These include eight records dating from 2011, relating to Grass Snake and Common Lizard which pertain to a location on the Downs Link within the south of the site. In addition, the UK Habitat survey identified habitats across the site as suitable for use by reptiles in the form of woodland, hedgerow bases, scrub, waterbodies and rough grassland fields and field margins.

1.4.2 A reptile survey of the site was previously undertaken in 2022 during which low populations of Grass Snake and Common Lizard were recorded within the site (HDA, 2022).

1.4.3 In recognition of the continued presence of suitable habitat within the site, the time that has passed since the 2022 reptile survey was carried out and the legislative context set out in *Section 1.2* above, a updated reptile survey was undertaken of the main site in September 2025 to confirm the continued presence/ likely absence of reptiles within areas of the main site affected by the emerging development proposals. This is the subject of this report. Specifically, the aims of the reptile survey were:

i. To establish the presence/ probable absence of reptiles;
ii. To assess the relative importance of different parts of the site for reptiles; and
iii. To predict likely impacts potentially arising from the proposed development on reptiles and give recommendations for impact avoidance, minimisation and mitigation.

2 METHODOLOGY

2.1 The methodology has been devised to accord with the requirements of all relevant legislation and good practice guidance, including the Herpetofauna Worker's Manual (JNCC, 1999) and Reptile Survey guidance (Froglife, 1999).

2.2 The site was surveyed on a total of seven occasions by Ed Seares of HDA. Surveys were generally carried out during optimum temperature and weather conditions (intermittent or hazy sunshine, temperature between 9°C and 20°C and low winds). Dates of survey visits, with survey timings and weather conditions, are shown in *Table 1* below:

Table 1: Survey times and weather conditions

Survey visit	Date	Time of visit	Weather conditions	Temp (°C)
1	11.09.2025	11.15 – 13:30	Occasional periods of light drizzle, 85% cloud cover, light breeze.	16 - 17
2	14.09.2025	13:15 – 15:30	Dry, 100% cloud cover, gentle breeze.	17
3	16.09.2025	12:45 – 15:00	Dry, 65% cloud cover, gentle breeze.	17-18
4	18.09.2025	14:45– 17:00	Dry, 100% cloud cover, moderate breeze.	19-20
5	19.09.2025	10:15 – 13:00	Dry, 0% cloud cover, gentle breeze.	21-22
6	21.09.2025	13:15 – 16:00	Dry, 80% cloud cover, gentle breeze.	15
7	22.09.2025	10:15 – 13:00	Dry, 0% cloud cover, gentle breeze.	12

2.3 Two methods of surveying were used. Firstly, artificial refugia (squares of roofing felt 0.5m x 0.5m) were placed, in advance of the survey commencing, at potential basking areas throughout the site. A total of 377 refugia were placed across the site, giving a total density of 3.2 refugia per hectare. Although this is below the recommended density of 5 to 10 refugia per hectare, the majority of the main site comprises intensively farmed fields and short grazed grassland fields which were generally considered unsuitable or very low-quality reptile habitat. The actual extent of potential reptile habitat forms only a small

proportion of the survey area and therefore the actual density of refugia per hectare of suitable habitat considerably exceeded the recommended 5 to 10 refugia per hectare, thereby allowing a robust assessment of the presence/likely absence of reptiles and their distribution where suitable habitat occurs.

2.4 During each of the seven visits, each refugium was inspected for any reptiles basking on the upper side, then lifted and checked for sheltering animals before being carefully replaced. A different route was taken each time to ensure that there was no bias due to the time of the survey.

2.5 The second survey method involved transect searches across suitable habitats within the survey area. This ensured that all areas were represented in the survey and that the survey was not biased towards those reptiles more likely to use refugia. Transect searches involve walking slowly around the survey area, visually searching potential basking areas and marking the locations of any reptiles observed on a map. Potential reptile refuges already present within the survey area such as fallen deadwood were also lifted to check for the presence of animals.

2.6 The following information was recorded for each reptile survey: species seen, the number of animals seen, location, date, start and finish times, temperature and weather.

2.7 Limitations

2.7.1 The reptile surveys were carried out at a time of year when reptiles are active during suitable weather conditions for reptile activity. On one occasion temperatures exceeded 20°C but it has been HDA's experience that minor exceedances do not significantly change rates of detection, and in some instances may improve detection of reptiles. It is therefore considered that no significant limitations were encountered during the survey and the survey findings form a robust basis for an assessment of the impact of the proposed development on reptiles and the identification of recommendations for impact avoidance, minimisation and mitigation.

3 RESULTS

3.1 Habitat assessment

3.1.1 The majority of the survey area comprises unsuitable reptile habitat, being dominated by intensively managed farmland and short grazed grassland fields. Suitable reptile habitat is limited to areas of woodland, woodland edge habitat, hedgerow bases, the banks of watercourses and the network of field margins comprising rough grassland, ditch and scrub habitats.

3.2 Refugia and visual searches

3.2.1 Despite the presence of suitable habitat for reptiles within the site and the historic known presence of Common Lizard and Grass Snake within the site, no reptiles were recorded during the updated reptile survey.

4 SITE EVALUATION

4.1 A number of guidelines are used to evaluate the importance of a site for reptiles, based on both the population density and number of species present, in addition to historical factors.

4.2 The Guidelines for Biological Selection of SSSIs (JNCC, 2022) identifies that for the more common and widespread species of reptile (Adder, Grass Snake, Common Lizard and Slow-worm) the following criteria should be considered for candidate SSSIs:

- The best 5 locations supporting established populations of Adder in any area of search; and/or
- The best localities in which three or more common and widespread reptile species occur.

The presence of populations of one or two common and widespread reptile species, should also count positively in the evaluation of potential SSSIs chosen largely on other grounds, especially where populations are large, located in areas where the species concerned is rare or at the geographical limits of its range.

4.3 The Herpetofauna Workers' Manual (JNCC, 1998) suggests that sites falling outside of the SSSI selection criteria should be designated as Sites of Importance for Nature Conservation (SINCs) if they meet the following criteria:

- Any site with a large population of a single species;
- Any site with a moderate population of two species;
- Any site at the edge of the geographical range of a species; and
- Any site with a long documented history.

4.4 The Key Reptile Site register is a mechanism designed to promote the safeguard of important reptile sites. To qualify for the register, the site in question must meet at least one of the following criteria (Froglife, 1999):

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

4.5 The criteria for scoring populations of the four common reptile species for the purposes of the Key Reptile Register are given in *Table 3* below.

Table 3: Population parameters for the Key Reptile Sites register

Reptile species	Low population Score 1	Good population Score 2	Exceptional population Score 3
Adder	<5	5-10	>10
Grass Snake	<5	5-10	>10
Common Lizard	<5	5-20	>20
Slow-worm	<5	5-20	>20

Figures in the table refer to maximum number of adults seen by observation and/or under tins (placed at a density of up to 10 per hectare) by one person in one day.

4.6 Despite the presence of suitable habitat within the site, no reptiles were recorded during the updated reptile survey. The site is therefore extremely unlikely to qualify for consideration as a SSSI, SINC or Key Reptile Site either wholly or in part.

4.7 In addition, the presence of low populations of Common Lizard and Grass Snake were identified within the site in 2022 (HDA, 2022). On this basis, it is conceivable that the site may support very low populations of Common Lizard and Grass Snake on at least an occasional or transitory basis. The site is therefore extremely unlikely to qualify for consideration as a SSSI, SINC or Key Reptile Site. Both Common Lizard and Grass Snake are relatively common and widespread reptile species and suitable habitat for these species are relatively abundant in the wider area. The site is therefore considered in its entirety to be of no more than low local value for Common Lizard and Grass Snake.

4.8 Notwithstanding the limited reptile interest of the site, nature conservation legislation afforded to all reptiles will apply which includes the protection of individuals and consideration of reptile populations in the planning process. Measures to safeguard individual reptiles and maintain and enhance the reptile interest of the site through the proposed development are therefore identified in *Section 5* below.

5 RECOMMENDATIONS

5.1 The site is considered to support 'very low' numbers of Common Lizard and Grass Snake and as such does not qualify as a SSSI, SINC or Key Reptile Site. The site is considered to be of no more than low local value for reptiles and similar habitat for these species are relatively abundant in the wider area. Notwithstanding this, all reptiles should be afforded the protection provided under the 1981 Wildlife and Countryside Act (as amended). In addition, development proposals for the site should also seek to maintain and, where possible, enhance opportunities for this group in accordance with the 2006 NERC Act and

planning policy and guidance. Measures by which this can be achieved are identified below.

5.2 Sensitive Approach to Site Clearance

5.2.1 Very low numbers of Common Lizard and Grass Snake may be present across all parts of the site where areas of suitable habitat occur, such as hedgerow and treeline bases, rough grassland and tall ruderal field margins, woodland, scrub and wetland habitats. It is proposed that where possible, development proposals seek to avoid areas of suitable reptile habitat within the site. Where loss of suitable reptile habitat is unavoidable it will be necessary to employ suitable measures during development works to ensure the protection of any individual reptiles present together with the long-term maintenance of opportunities for reptiles at the site in accordance with the 2006 NERC Act.

5.2.2 Although Common Lizards and Grass Snakes may be present within suitable habitat across the site, in view of the limited number and distribution of reptiles recorded, and low number of records for Grass Snake provided during the desk study, assuming that management of the main site remains the same and that the distribution or character of habitats does not change significantly prior to construction, a full reptile translocation exercise is not currently recommended in this instance prior to development commencing.

5.2.3 Instead, it is recommended that a controlled approach is taken to site clearance in those areas where suitable reptile habitat is to be lost in order to displace any reptiles present into retained areas of contiguous habitat within the site and/ or wider area. This would require the following:

- Firstly, vegetation cover should be reduced to minimum height of 150mm. This would ideally take place at a time avoiding the bird breeding season (typically between March and August inclusive) or otherwise be preceded by a check of suitable habitat for active nests immediately prior to commencement of works by a suitably qualified ecologist.
- Where the potential for reptiles to be present remains, a minimum period of 5 days with daytime temperatures of >12^{o}C should then be allowed to pass prior to the second stage of vegetation clearance (see below).
- The second stage would involve clearance of all suitable vegetation to ground level (i.e. <75mm) by hand during mild temperatures (>14^{o}C) at a suitable time of year when reptiles are likely to be active (generally mid-March to early October inclusive). At this time any potential hibernacula or refugia encountered should be carefully dismantled by hand. This stage of clearance should be undertaken under the supervision of a suitably qualified ecologist who would capture and relocate any reptiles encountered to areas of retained habitat on the margins of the site.

- Where the potential for reptiles to be present still remains, a further 5 days with daytime temperatures of >12^{o}C should then be allowed to elapse to enable any remaining reptiles to disperse from the area of works, prior to the destructive search.
- Following clearance of vegetation to ground level and removal of any refugia by hand, no suitable reptile habitat would remain and it is expected that any remaining reptiles would disperse from the area of works into adjacent habitat on their own accord.
- In order to be certain that no reptiles are present within the area of works, where any potential for reptiles to be present still remains a destructive search should be carried out. This would involve the progressive stripping of topsoil from the area of works under the supervision of a suitably qualified ecologist.
- In the event that the destructive search is delayed, vegetation should be maintained at ground level until the destructive search is carried out. Similarly, following the destructive search, the land should be maintained as unsuitable for the recolonisation of reptiles prior to and throughout the construction works.

5.2.4 It is recommended that the approach to mitigation outlined above is reviewed at an appropriate stage prior to works commencing in order to allow consideration of:

- Development design. The above approach assumes that only relatively limited areas of suitable reptile habitat are affected at any given time and that where habitat is lost contiguous areas of suitable reptile habitat will be retained or created in advance of works commencing into which reptiles can be displaced. In the event that large isolated areas of habitat are affected then translocation may be required.
- Any changes to management of habitats at the site which may have affected their ability to support reptiles since this report was produced.
- The findings of any updated reptile survey work. It is recommended that the reptile survey subject of this report is updated if there is a delay of more than two years between the survey being undertaken and works affecting suitable reptile habitat commencing.

5.2.5 It is recommended that the measures to protect and maintain the site's reptile population form the basis of a detailed Reptile Mitigation Method Statement to be agreed with Natural England and/or the Local Planning Authority at an appropriate stage.

5.3 Maintaining & Enhancing Opportunities for Reptiles

5.3.1 In accordance with the 2024 National Planning Policy Framework (NPPF) and 2006 NERC Act, development proposals should seek to maintain and where possible enhance opportunities for reptiles at the site. This could be achieved through the retention,

enhancement and creation of reptile habitats as part of the landscape strategy for the site. Consideration should be given to:

- Enhancement of woodland/hedgerow edge habitats through creation of ecotones (a gradation from woodland/hedgerow to scrub to rough grassland habitats);
- Restoration of existing waterbodies and creation of new waterbodies in order to provide improved habitats favoured by Grass Snake;
- Inclusion of other high quality reptile habitats within the landscape scheme in the form of rough and meadow grasslands, scrub, wetland and woodland habitats;
- Provision of opportunities for hibernation and refuge though provision of log/brash piles and purpose built hibernaculum; and
- Securing the long-term integrity of new and retained reptile habitat through inclusion within a long-term management plan.

5.3.2 The emerging development proposals include provision of considerable areas of informal greenspace along with retention of existing woodland and the majority of hedgerow habitats. It is considered that subject to suitable design in accordance with the measures described above, these provide an opportunity to substantially enhance the current value of the site for reptiles.

6 CONCLUSION

6.1 Subject to the implementation of the measures outlined above to protect individual reptiles and ensure that suitable habitat remains following development within the survey area, the proposed development is unlikely to result in adverse effects on the local reptile population. Furthermore, through habitat retention, enhancement, creation and management, development of the site could in fact provide opportunities to safeguard and enhance its value for reptiles in the long-term in accordance with the 2024 National Planning Policy Framework and the 2006 NERC Act.

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	Personnel	Position
Author	Kate Thatcher	Assistant Ecologist
Approved for issue	Clare Bird MCIEEM	Associate Ecologist

APPENDIX A

2025 Reptile Survey Summary Plan

north

0 250 500 m

KEY

Site boundary

Areas of site surveyed using reptile refugia*

*No reptiles were recorded during the survey

Map data from OpenStreetMap 2026-01-20

CLIENT:
Berkeley Strategic Land Ltd

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The Stables, Howbery Park, Benson Lane, Wallingford, OX10 8BA
t 01491 838175 e consult@hda-enviro.co.uk w www.hda-enviro.co.uk

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