# Reptile Survey Report 2024

# Partridge Green, Horsham

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# Contents



**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 Croudace Homes to undertake a reptile survey on the land at Partridge Green, Horsham, West Sussex, RH13 8EF, hereafter referred to as the 'site' (Figure 1).

1.2 The site is situated just off Bines Road, Partridge Green, Horsham, West Sussex (TQ 18853 18751). The site consists predominately of arable fields, and semi-improved grassland field margins with hedgerows bordering its northern and eastern boundaries. Some mature scattered trees are also present along its western boundary.

1.3 A wider survey area (Figure 1) was covered as to ensure that a better idea of the presence of bats within and around the development site was known.

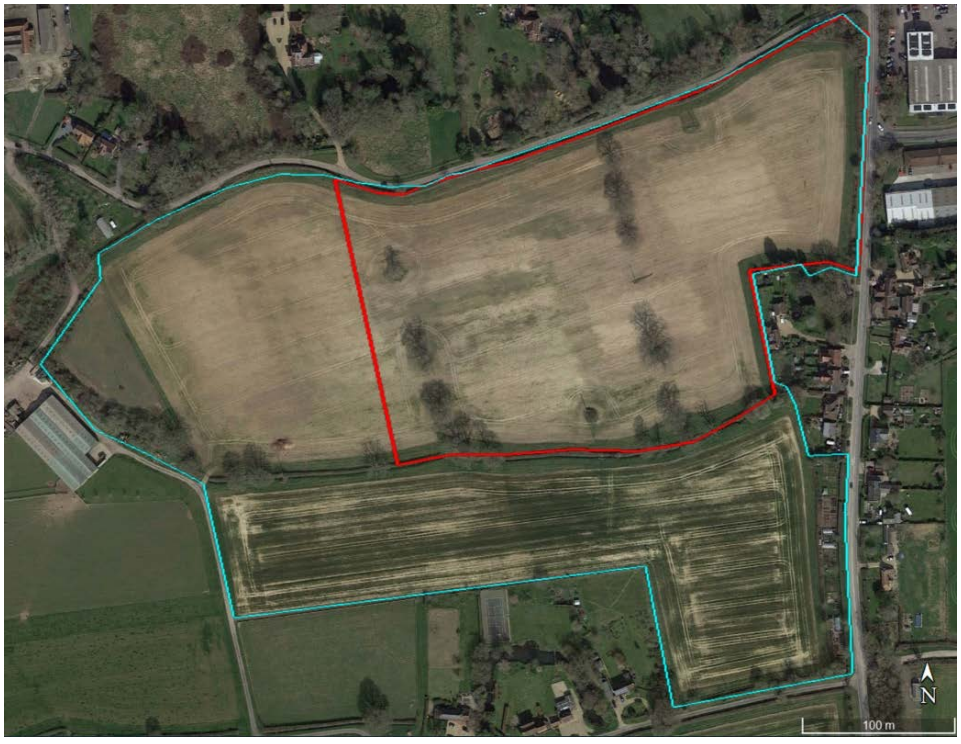


*Figure 1: Survey boundary (cyan) and development boundary (red).*

### Proposed Development

1.4 The current proposals include a residential development of 101 units, with associated

gardens and public green space, and sustainable drainage systems (SuDS) located within the eastern portion of the site. The current proposals are shown in Figure 2 below.

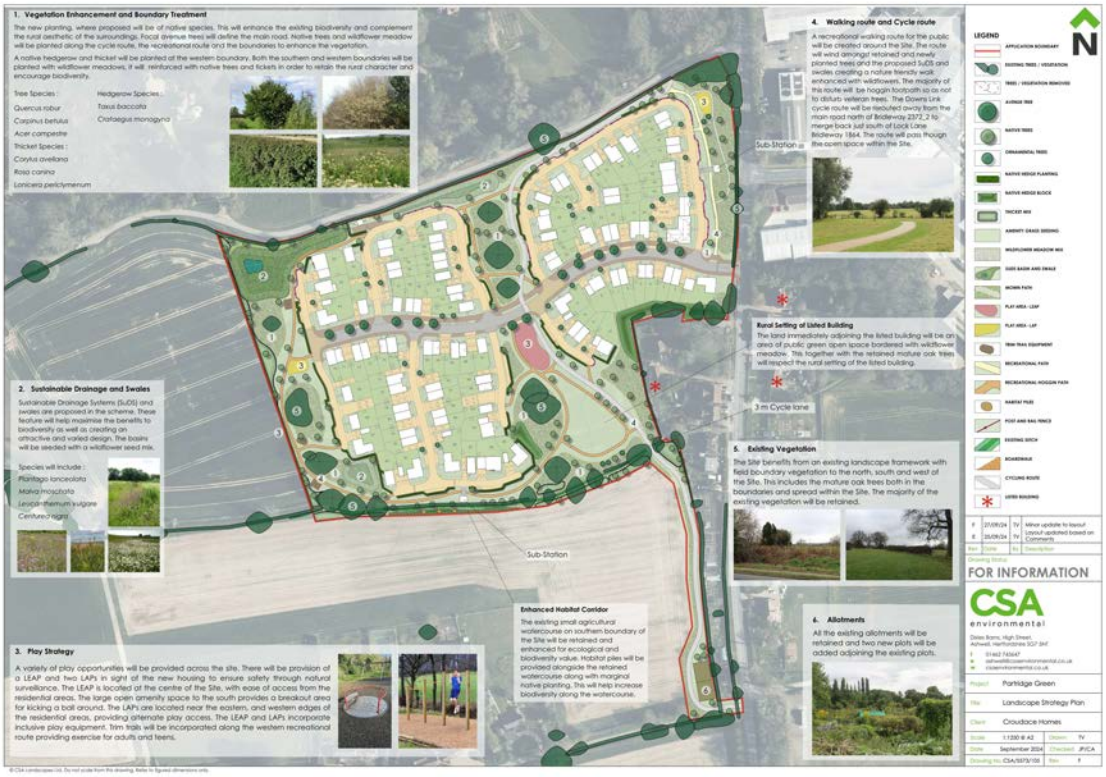


***Figure 2: Current proposals for the site.***

**Legislation**

1.5 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*.

1.6 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.

1.7 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 Previous Survey Effort

2.1 A terrestrial survey of the site for reptiles was carried out over 7 survey visits between 23rd September to 13th October 2021. Prior to the commencement of the survey, the site was set up with artificial refugia (roofing felts) for reptiles on 14th September 2021. The field is cultivated as an arable crop field and as such suitable habitat for reptiles is only present on the field margins. The approximate locations of the mats were the same as shown in Figure 3 below. No reptiles were identified over the seven visits.

## 3.0 Methodology

3.1 A terrestrial survey for reptiles (presence or likely absence) was carried out at the site between April and May 2024. On March 19th 2024, prior to the commencement of the survey, the site was set up with artificial refugia (roofing-felt mats, approximately 1m$^2$).

3.2 Reptile mats were placed liberally around areas of suitable habitat, which consisted of grass field margins (Figure 3). The mats were left in place for a 'bedding in' period of 7 days prior to the commencement of the reptile survey to allow reptiles to adapt to them being there, following best practice.

3.3 The timing and number of surveys were based on guidelines produced by Froglife (1999) and Gent and Gibson (1998). A total of seven survey visits were carried out to check the refugia for the presence of reptiles. Visits were only carried out if the weather conditions were suitable for locating reptiles. On each visit to the site, a minimum of one circuit to check all refugia was carried out.

3.4 Natural refugia were also surveyed during the visits. Any natural refugia, such as log piles and brash piles, were lifted and hand-searched for evidence of reptiles.

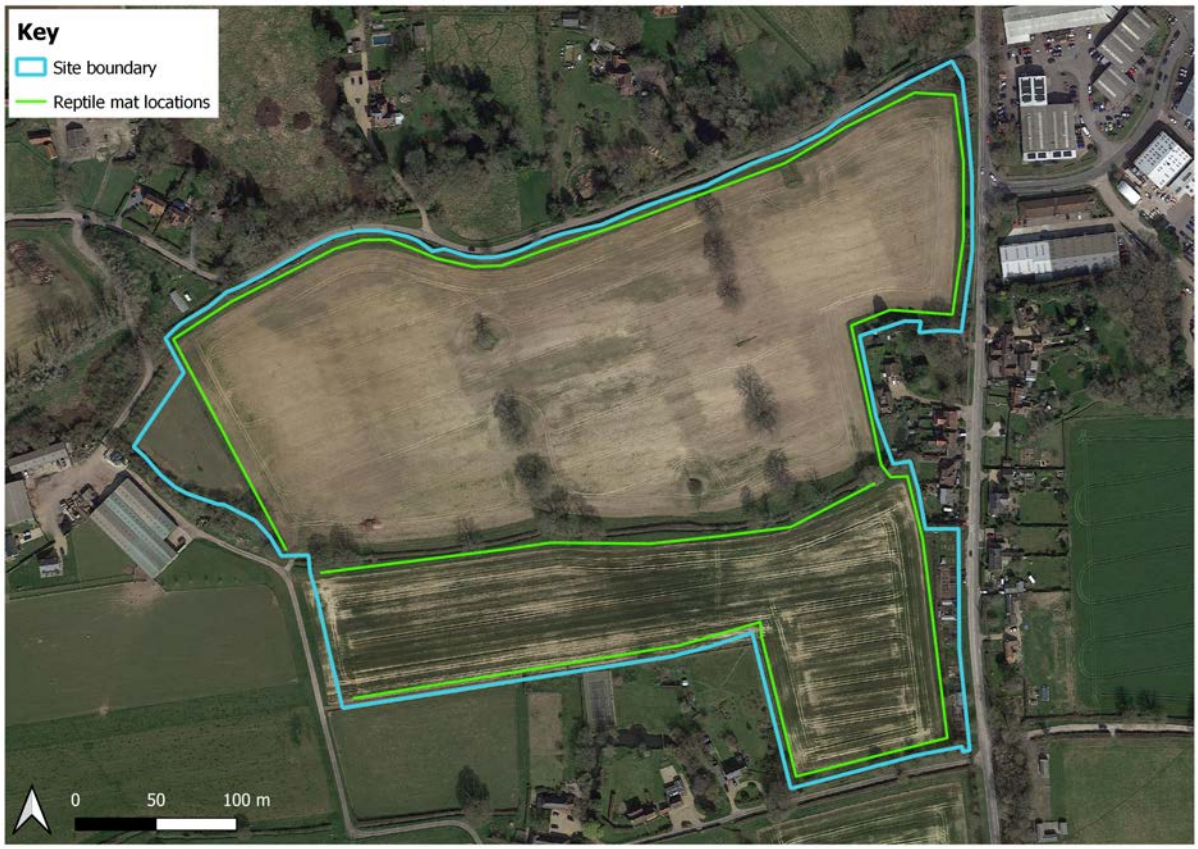


*Figure 3: Location of reptile mats (green lines).*

## 4.0 Results

4.1 The results of the survey are summarised in Table 1.

*Table 1: Reptile Survey Results 2024*

| Visit | Date | Temperature (°C) | Weather | Reptile numbers |
|---|---|---|---|---|
| Refugia set-up | 19/03/24 | - | - | - |
| 1 | 03/04/24 | 13 | 100% cloud cover and 3 wind | 1 adult slow worm |
| 2 | 10/04/2024 | 11 | 60% cloud cover | 1 adult common lizard<br>1 adult slow worm |
| 3 | 17/04/2024 | 10 | 30% cloud cover and 2 wind | 2 adult common lizards<br>1 adult slow worm |
| 4 | 24/04/2024 | 11 | 0% cloud cover and 0 wind | 3 adult common lizards<br>1 adult slow worm |
| 5 | 01/05/2024 | 13 | 80% cloud cover and 2 wind | 1 adult slow worm<br>1 juvenile grass snake |

| | | | | |
|---|---|---|---|---|
| 6 | 08/05/2024 | 17 | 5% cloud cover and 1 wind | 1 adult grass snake<br>1 juvenile grass snake |
| 7 | 15/05/2024 | 15 | 20% cloud cover and 3 wind | 5 common lizards<br>1 adult slow worm<br>1 juvenile slow worm<br>3 adult grass snakes |

4.2 The size of the reptile population can be estimated using the Froglife (1999) scoring system. This assumes a density of 10 refugia per hectare. A population size class assessment, which is based on the number of adults recorded in one survey visit, can be made using Table 2.

***Table 2: Population class assessment categories (Froglife 1999)***

| | Low Population | Good Population | Exceptional Population |
|---|---|---|---|
| Adder | <5 | 5-10 | >10 |
| Common lizard | <5 | 5-20 | >20 |
| Grass snake | <5 | 5-10 | >10 |
| Slow worm | <5 | 5-20 | >20 |

4.3 A peak count of 5 adult common lizards was recorded on site, which was classified as a 'Good' population of common lizards. A peak count of 3 adult grass snakes which was classified as a 'Low' population and a peak count of 1 adult slow worm which was classed as a 'Low' population of slow worms.

4.4 The approximate location of reptiles recorded is shown in Figure 4 below.

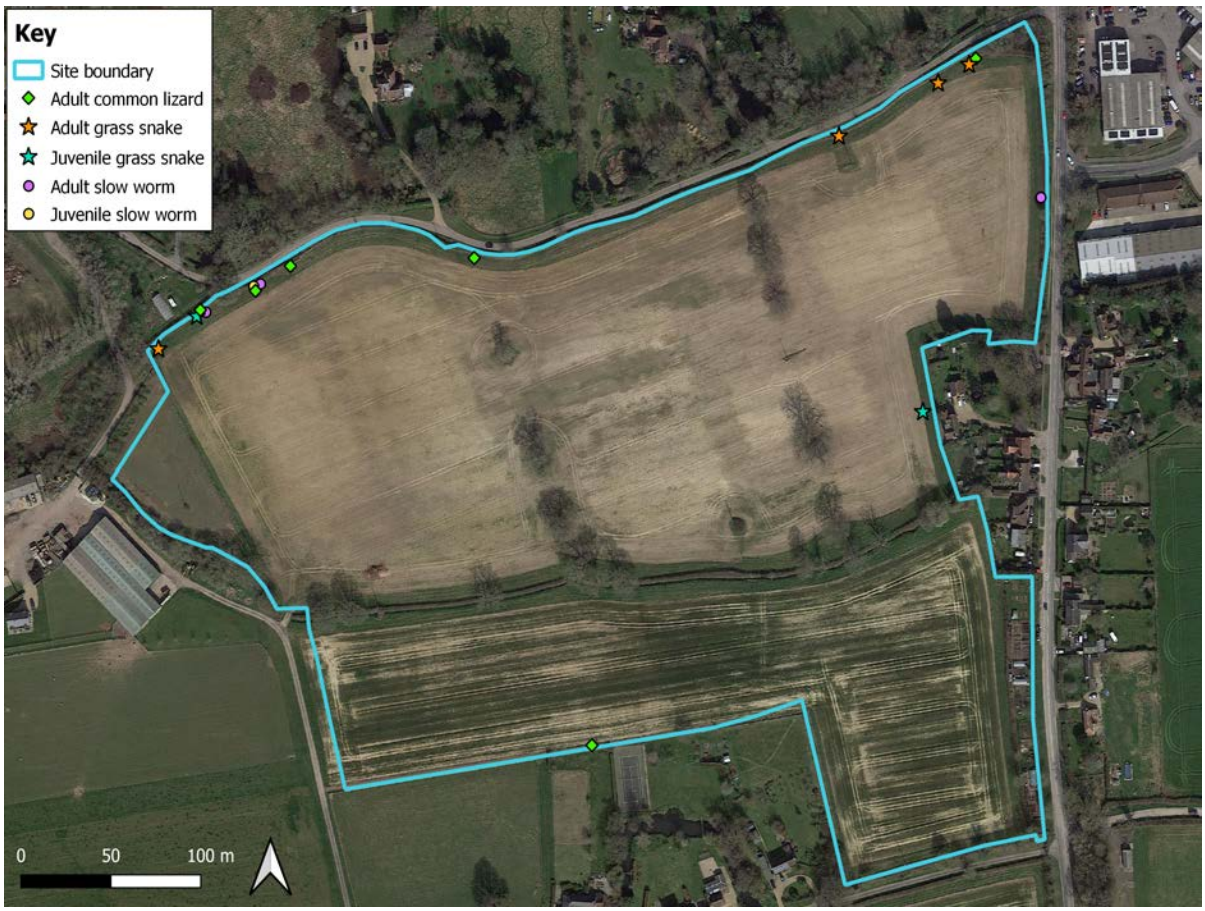


*Figure 4: Locations of reptiles recorded during surveys.*

## 5.0 Mitigation and Enhancements

5.1 A total of three species of reptiles were recorded on site: slow worm, common lizard and grass snake. Based on the survey results it is considered that the site supports a 'Low' population of slow worms and grass snakes, as well as a 'Good' population of common lizards. As a total of three species were identified within the site, the site is classed as an important reptile site.

### Reptile Mitigation Strategy

5.2 The proposals are currently set to retain the vast majority of the site's boundaries, including where the reptiles were discovered during the survey effort. Furthermore, as the works will be focused within the area of arable land, which is considered to be unsuitable for reptiles, due to its intense management regime, it is believed that a full translocation effort for this site would not be required. Instead, it is believed that the implementation of

Reasonable Avoidance Measures (RAMs) on suitable areas of habitat will ensure no reptiles are harmed during site clearance.

5.3 In addition to the RAMs, the retained boundary features should be protected by Heras fencing which would serve as a visual and physical barrier to protect these features from construction-related encroachment and consequent accidental impacts during the construction stage. This Heras fencing should also include signage detailing the protection of reptile habitat and any relevant TPZ's (tree protection zones) where necessary. The Heras fencing should run the perimeter of the retained boundary habitats on site located around the construction zone and along any access points onto the site.

5.4 The RAMs for the site include the way vegetation clearance and enhancements are undertaken, in order to avoid and/or minimise any disturbance impacts on local reptile populations. It is considered that these measures, whilst set out for reptiles, would also protect any amphibians and other species such as small mammals potentially on site.

**Reasonable Avoidance Methods (RAMs)**

***Timings***

5.5 Vegetation clearance work required in areas of suitable reptile habitat should be undertaken in order to encourage any reptiles to move outside of these areas. This must take place between March and October inclusive to avoid the hibernation season which will ensure reptiles are at their most active.

***Prior to commencement of development works***

5.6 Any suitable areas of grassland on site to be lost as part of the development proposals should be cleared in stages, making the site less suitable for reptiles. The first stage involves cutting vegetation to a height of 200mm, leaving at least overnight, with a second cutting down to a height of 100mm and again leaving overnight before the grassland is then removed.

5.7 Any areas of hedgerow and/or scrub to be removed, should be cut back (outside of bird breeding season or after a nesting bird check by a suitably qualified ecologist) initially to no lower than 100mm above ground.

5.8 After the above stages, relevant areas of suitable habitat should then be destructively searched under direct ecological supervision. Clearance of vegetation should start from the middle of an area and work outwards, to reduce the chance of any animals becoming stranded. This work should be undertaken with an excavator and toothed bucket in a sensitive manner under the supervision of a suitably qualified ecologist.

5.9 The location of the future work compound should be in an area of unsuitable habitat for reptiles, in any area of existing arable land. In addition, the boundary field margins should be protected from harm during work with the erection of Heras fencing to ensure that retained reptile habitat is not encroached upon during work.

***During development work***

5.10 Construction and demolition materials, as well as skips and pallets, should be stored on hardstanding or bare earth where possible and furthermore, should be elevated off the ground. This is so that no features are created that reptiles or other species could potentially use as refuge habitats.

5.11 Where trenches and holes are dug, these should not be left open overnight. Reptiles (plus amphibians and mammals) may get trapped in vertical-sided trenches. Therefore, where there is a risk of this occurring, the holes should be refilled, or planks of wood / shallow graded edge should be placed so that any trapped animals may use these to escape.

5.12 The implementation of the agreed reasonable avoidance measures will be implemented and undertaken by the project ecologist and ecological clerk of works (ECoW) working on site. The maintenance and protection of the boundary features will be the responsibility of the technical and site managers of the development. The implementation of reptile enhancement features again is the responsibility of the technical and site managers undertaking the construction project, with any additional advice given by the project ecologist overseeing the works.

5.13 If a reptile is to be found during works, then it will be relocated to retained reptile habitat around the site perimeter. Post development neutral grassland, and scrub will be created as part of the landscape strategy.

5.14 Any arisings brash or logs will be removed from site unless used to create log piles or habitat piles within the protected retained reptile habitat within the site boundaries. Or habitat creation areas. No arisings, brash or logs will be stored within the works area which may provide attractive habitat to reptiles or other wildlife.

5.15 With the mitigation strategy not requiring translocation and to save on the temporary use and then subsequent disposal of large amounts of plastic exclusion fencing, no specific disposal measures for mitigation materials are required.

5.16 If conditions on site significantly change in the period leading up to construction, with the arable land turning to suitable habitat, then additional measures such as translocation may need to be undertaken. Any alteration to this strategy will be assessed by the project ecologist prior to the start of works.

**Enhancement Strategy**

5.17 The retained boundary hedgerows should be subject to enhanced management and any gaps filled to improve the level of diversity. Hedgerows help to provide a layering of different habitats that can be utilised by a wide variety of species. Species that can be planted include blackthorn *Prunus spinosa*, hawthorn *Crataegus monogyna*, hazel *Corylus avellana*, field maple *Acer campestre*, holly *Ilex aquifolium*, elder *Sambucus nigra*, alder *Frangula alnus*, guelder rose *Viburnum opulus*, dog rose *Rosa canina* and dogwood *Cornus sanguinea*.

5.18 The retained hedgerows can be planted with herbaceous plants and bulbs. These will attract bees, butterflies and other insects as well as providing ground cover for smaller animals. Seeds that are tolerant of semi-shade and are suitable for sowing beneath newly planted or established hedges should be used.

5.19 They should be placed in sunny locations (where they can dry out) and if there is a risk that the public might disturb or collect logs from these piles, then they can be partially buried or anchored with wire. Such piles should contain a mixture of log sizes and shapes with some small-diameter material to create a diverse structure (Figure 5). Leaf litter can be added and planted around the log piles while species such as honeysuckle or clematis can also add value as they provide a source of food for invertebrates.

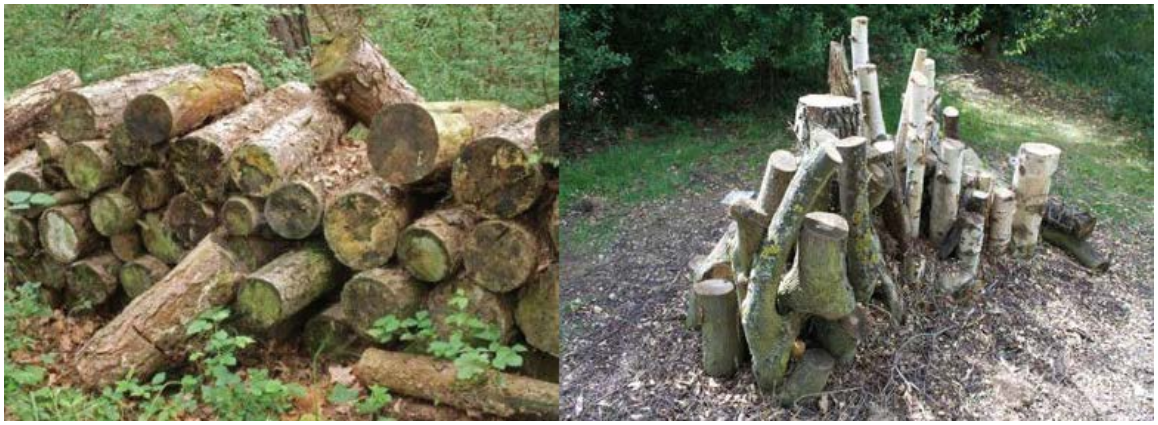

***Figure 5: Log piles and hibernacula can be created within the edges of the site.***

## 6.0 Conclusion

6.1 The reptile survey recorded a 'Low' population of both grass snakes and slow worms, as well as a 'Good' population of common lizards. As three reptiles species were identified during the survey period, the site was classified as an important reptile site.

6.2 As the proposals are focused within the suitable arable land, whilst retaining the majority of the suitable boundary features, it is considered that the use of RAMS would be more than sufficient in mitigating any potential harm on reptiles.

6.3 If conditions on site significantly change in the period leading up to construction, with the arable field turning to suitable habitat, then additional measures such as translocation may need to be undertaken. Any alteration to this strategy will be assessed by the project ecologist prior to the start of works.

## 7.0 References

ARC. 2010. *Guidance on Building Development (England) With Respect to Amphibians and Reptiles*. Amphibian and Reptile Conservation.

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*. Joint Nature Conservation Committee, Peterborough.

HGBI (1998) *Evaluating local mitigation/translocation programmes: Maintaining Best Practices and Lawful Standards. HGBI advisory notes for Amphibian and Reptile Groups (ARGs).* Herpetofauna Groups of Britain and Ireland, c/o Froglife, Halesworth.

Sewell, D. *et al.* 2013. *Survey protocols for the British Herpetofauna*. Amphibian and Reptile Conservation.

The Ecology Partnership (2021) Reptile Survey on Land at Partridge Green, Horsham.

***Internet resources:***

Google Maps: www.maps.google.co.uk

Magic Maps: www.magic.gov.uk

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