

# **Reptile Survey Report Land North of Railway Line Rhoose Point Rhoose Vale of Glamorgan**

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For Persimmon Homes

April 2022



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## 1 Introduction

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### 1.1 Survey Brief

TerrAqua Ecological Services Ltd was commissioned by Persimmon Homes to undertake a reptile survey of parcel of land north of the railway line at Rhoose Point, Rhoose, Vale of Glamorgan. Approximate central grid reference ST07186 66267. The survey boundary was taken as that supplied by Mr Morgan Williams acting for Persimmon Homes.

The survey was undertaken in late April 2022 and under appropriate weather conditions .The survey was undertaken as part of an ecological assessment of the site prior to a planning application for a residential development. The results of the survey will highlight any issues relating to reptiles that may arise within the site and allow for any such constraints to be considered during any subsequent proposed development.

### 1.2 Client Details

The survey was undertaken on behalf of Persimmon Homes, Persimmon House, Llantrisant Business Park, Rhondda Cynon Taf following instructions to proceed by Mr Morgan Williams acting for Persimmon Homes East Wales, Persimmon House, Llantrisant Business Park, Llantrisant, Rhondda Cynon Taf CF72 8YP.

## 2 Background

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### 2.1 Rational

A preliminary ecological assessment of a parcel of land located north of the railway line, Rhoose Point, Rhoose, Vale of Glamorgan was undertaken by TerraAqua Ecological Services Ltd in April 2022 on behalf of Persimmon Homes. This preliminary assessment identified habitats within the site boundary suitable for use by reptiles Appendix II. Previous reptile surveys of the site completed between 2004 and 2007 (Capita Gwent Consultancy) confirmed reptiles as being present within the site. Persimmon Homes have commissioned this repeat survey of the site in order to give the current status of the site with regard to reptile species. This will ensure that reptiles can be given appropriate consideration during any future development of the site.

### 2.2 Ecology

Six species of reptile can be found in the UK, and these can be found in variety of different habitat types including sand dunes, rough grassland, scrub and heathland. The six UK species are the adder (*Vipera beris*), grass snake (*Natrix helvetica*), slowworm (*Anguis fragilis*), common lizard (*Zootoca vivipara*), sand lizard (*Lacerta agilis*) and smooth snake (*Coronella austriaca*). Smooth snake and sand lizard are absent from South Wales.

Reptiles require a range of habitats within their home range; this allows for differing seasonal requirements such as basking, mating, egg laying or birth areas and hibernation sites. Some species such as the slow worm and common lizard can be found extensively across Britain while others such as the sand lizard require very specific habitat types and are consequently very rare and localised.

### 2.3 Legal Status

All reptile species found in the UK are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (WCA) as amended by the Countryside and Rights of Way Act 2000 (CROW).

Adder, grass snake, slow worm, and common lizard are afforded a degree of protection under Section 9 (1) and section 9(5). This makes it an offence to:

- Intentionally kill or injure and individual
- Sell, offer for sale, possess or transport for the purpose of sale, or publish advertisements to buy or sell these species

- Sand lizard and smooth snake are afforded full protection under Schedule 5 section 9 of the WCA 1981. These species are also listed on Annex IVa of the EC Habitats and Species Directive and Annex II of the Bern Convention. As such it is an offence to:
- Deliberately or intentionally kill injure or capture these species
- Deliberately or recklessly disturb the species
- Take or destroy the eggs of these species
- Damage, destroy or obstruct access to a breeding site or place used for shelter and protection
- Sell, offer for sale, possess or transport for the purpose of sale, or publish advertisements to buy or sell these species

The presence of reptile species is a material consideration during the planning process

### 3 Survey Methodologies

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#### 3.1 General

The survey was undertaken by Carmen Jones MCIEEM and Dyfrig Jones both highly experienced ecologists with extensive experience in the surveying of reptiles and reptile mitigation.

The reptile survey was carried out using a combination of visual searches of appropriate habitats, and the use of artificial refugia. The surveys were carried out during late April 2022.

Temperature and weather can play a significant role in the success or failure in recording reptiles at a given site therefore survey visits were selected in order to take advantage of the most appropriate weather conditions.

Surveys were conducted when air temperatures were between 9° C and 18° C. very hot sunny days and cold wet conditions were avoided.

The surveys were all carried out during the morning or late afternoon, between 8.00am-10.30am and/or 4pm and 18.45pm, unless weather conditions suggested that a delay in the morning visit would allow optimal temperatures to be obtained before the survey was conducted. A total of 10 visits were made to the survey site.

Details of timing and prevailing weather conditions for each survey visit are given in table 1 below.

**Table 1** Survey Dates and Times

Visit	Date	Time	Conditions
1	17/04/2022	09:00	overcast 15°C
2	18/04/2022	09:30	Sunny 16°C
3	19/04/2022	08:45	Sunny 16°C
4	20/04/2022	17:15	Sunny 17°C
5	21/04/2022	08:45	Dry overcast 16°C
6	22/04/2022	09:15	Dry overcast 16°C strong breeze
7	23/04/2022	18:00	Dry overcast 16°C strong breeze
8	24/04/2022	10:30	Sunny 14°C
9	25/04/2022	09:15	Sunny 17°C
11	26/04/2022	10:10	Sunny 14°C

### 3.2 Visual Search

On each survey visit a visual search was made of habitats within the survey boundary that appeared suitable for basking reptiles. These included, where present, south facing banks, rubble piles, the base of hedgerows and walls, and areas of rough grassland. The site was walked slowly, and above habitats scanned using 10x45 binoculars any reptile observed were recorded and their position noted. In addition, any discarded debris that appeared suitable for use by reptiles was hand searched and any species found recorded.

### 3.3 Artificial Refuges

Reptile will readily use artificial refuges under which to shelter or bask. These artificial refuges can be very effective in surveying for reptiles as the animals are often attracted to the refuges from surrounding habitats thereby increasing the success rate of a reptile survey. Various materials have proved successful for use as artificial refuges including corrugated tin, wood, carpet tiles and roofing felt.

A total of 100 refugia, equating to a density of over 10 per hectare, of 0.5m x 1m square heavy duty roofing felt were positioned around the site at locations where the habitat was considered suitable for reptiles. These were left in situ for two weeks prior to the survey commencing.

Each of the artificial refuges was checked on ten (10) separate visits to the survey site. The location, species, sex and age of each animal found was recorded.

### 3.4 Data Search

A data search was undertaken as part of the Preliminary Ecological Assessment as previously referenced.

### 3.5 Other Species-Amphibian

In addition to recording all reptiles found any other species particularly amphibian species were also recorded.

## 4 Results

### 4.1 Survey Results

The total numbers of individuals of each species recorded on each survey visit are given in table 2. These results include species recorded using the selectively placed artificial refuges and those visually observed across the whole site.

**Table 2** Total number of individual species recorded at each survey visit

Visit	Adder	Grass Snake	Common Lizard	Slow Worm	Common Toad	Common Frog
1	0	0	0	3♂ 1♀	0	0
2	0	0	0	0	0	0
3	0	0	0	2♂ 1♀	0	0
4	0	0	1	3♂ 2♀	0	0
5	0	0	0	1♂ 2♀	0	0
6	0	0	1	2♂ 1♀	0	0
7	0	0	1	2♂ 1♀	0	0
8	0	0	1	2♂ 2♀	0	0
9	0	0	0	2♂ 2♀	0	0
10	0	0	0	2♂ 3♀	0	0

*\*Sand lizard and Smooth Snake are not present in South Wales and have not been included in the above table*

### 4.2 Data Search

No records relating directly to survey area or immediately adjacent habitats were found. Records for reptile species including grass snake, slow worm, adder and common lizard were found for locations within a 1.5km radius of the survey boundary.

## 5 Evaluation

### 5.1 Conservation Status of Species Recorded

Two reptile species was recorded over the ten survey visits namely slow worm and common lizard. Both species are widely distributed across Wales and the UK including the Vale of Glamorgan area.



Slow worm and common lizard are species listed in Section 7 of the Environment (Wales) Act 2016 as a Species of Principle Importance for maintaining and enhancing Biodiversity in relation to Wales.

No Amphibian species were recorded during the survey.

## 5.2 Population Estimates

The maximum number of slow worm recorded on any site visit was five (5). Based on a survey assessment for the evaluation of key reptile sites a score of five (5) individuals constitutes a good population (Froglife, 2009).

The maximum number of common lizard recorded on any site visit was one (1). Based on a survey assessment for the evaluation of key reptile sites a score of one (1) individual constitutes a low population (Froglife, 2009).

The above population evaluation is based upon the greatest number of individuals of each species recorded on a single visit, by a single surveyor using refugia at a density of 10 per hectare.

Population estimates are difficult to calculate due to the cryptic nature of reptile species and the considerable influence on survey success by prevailing weather conditions. In general a rough estimate of population size can be made by assuming that the peak count over the survey period represents between five and ten per cent of the actual population. Using this rough guide an estimation of the population size of each species can be made. Estimates for the survey site are given in table 3 below.

**Table 3** population Estimates for reptile species within survey site

Species	Number Recorded	Population Estimate
Slow worm	5	50-100
Common Lizard	1	10-20

Estimates for common lizard are difficult due to the nature of the animals and the ability to rapidly hide when detecting a human presence therefore the above figures may be an underestimate of lizard numbers.

The animals recorded were primarily found along the track and associated hedgerow base, the approach to the railway crossing and along the southern boundary with the railway embankment. The quality of these semi natural habitats means that the attractiveness of the artificial refugia may be compromised resulting in lower survey numbers and a resulting underestimate of the population at these locations.

The unmanaged hedgerow system separating the fields afford sub optimal habitat for reptiles with a small number of individuals recorded at the base of the hedgerows. No animals were recorded within the open grassland areas or arable area..

### 5.3 Amphibian Species

No amphibian species were observed during the reptile survey or during the Phase I walkover.

## 6 Conclusions and Recommendations

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The main habitats used by reptiles have been identified as the track running north -south at the western side of the site and its adjacent habitats and along the southern boundary with the railway embankment. The hedgerow system has also been identified as being of some value to reptiles in particular .along the hedgerow base. No reptiles were recorded within the open grassland.

As reptiles were found at the proposed development site appropriate avoidance and mitigation measures will be required in order to ensure that no reptiles are injured or killed during the proposed works. The following should be included in any mitigation strategy for the site.

- Reptiles should be removed and excluded from the development footprint prior to any clearance works commencing. If possible the animals should be relocated within the site boundary or as close as possible to the site, to an area with suitable habitat and which is guaranteed free from any potential damage or disturbance. If relocation within the site is not possible an alternative safe site with appropriate habitat should be selected on advice from an approved ecologist.
- The collection of animals should take place using recognised methods, at an appropriate time of year and over a timescale of sufficient duration to ensure the maximum number of animals have been rescued before works commence. This may involve the use of artificial refuges, hand searching of lying debris and selective habitat destruction but may also involve exclusion techniques such as directional strimming which will aid the natural movement of reptiles to adjacent suitable habitat. A detailed plan of the proposed methodology for relocation and or exclusion should be drawn up prior to any works commencing.
- The collection and relocation of any animals should be carried out by or supervised by the ecologist present on site.
- If a receiver site cannot be found within the existing boundary the selection of alternative site should be made with advice from an ecologist and all necessary habitat

improvements completed before any ground clearance works are started at the development site.

- The vegetation manipulation should take be undertaken by hand and take place over a number of days allowing time for animals to move away from the manipulated areas.
- The habitat manipulation should be undertaken under the supervision of an appropriate ecologist who will move any animals observed to safe locations.
- The perimeter of the construction zone should be fenced with reptile exclusion fencing to prevent animals returning to the working area. The specification for such fencing is shown in appendix I. This fencing should remain intact and well maintained throughout the construction period.
- No other ground clearance works should commence until the ecologist is satisfied that the site is clear of reptiles and no other ecological issues remain.

## References

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Clements, D.K& Pryce, R.D. (2000). Criteria for the selection of wildlife sites in Gwent, Glamorgan and Carmarthenshire. Gwent Wildlife Trust.

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. (1999). Herpetofauna workers manual. Joint Nature Conservation Committee

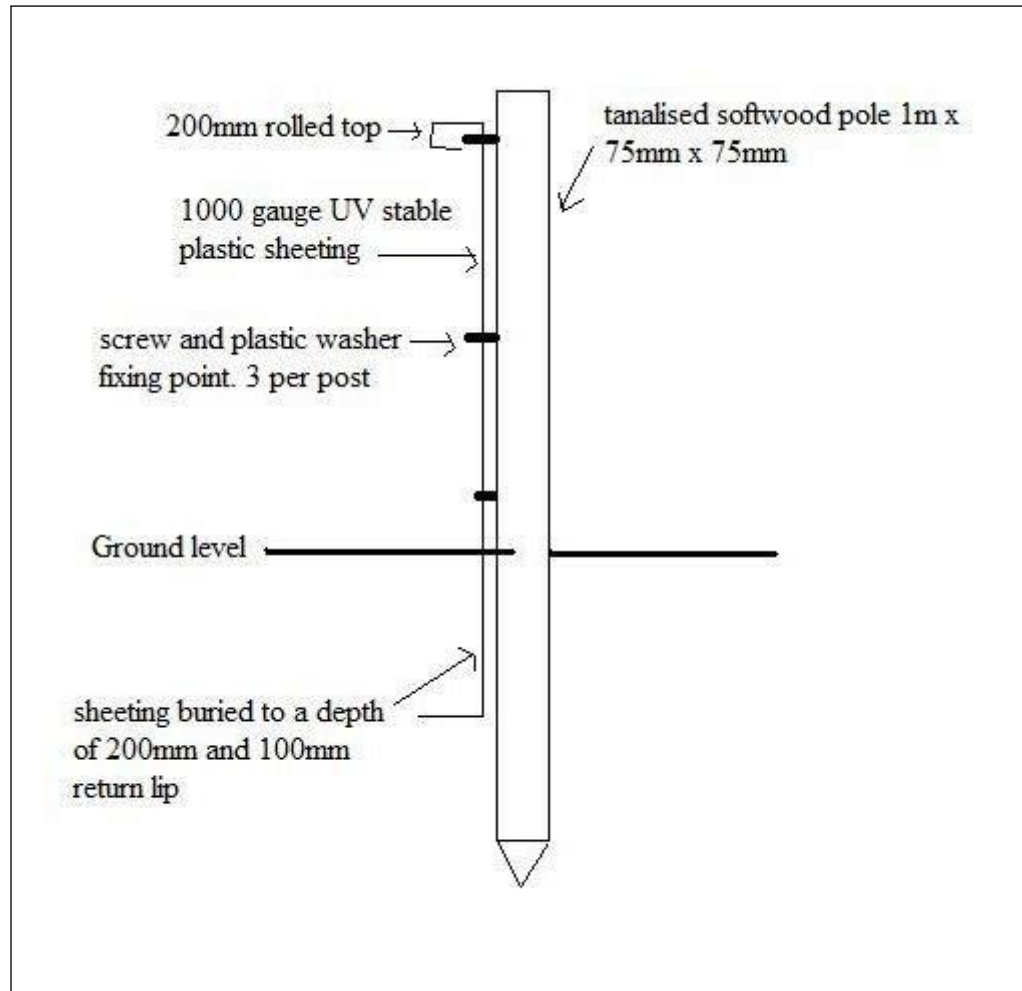
TerrAqua Ecological Services Ltd (2022). Phase I Habitat Survey/Preliminary Ecological Assessment land north of railway line, Rhose Point, Rhose, Vale of Glamorgan April 2015. Persimmon Homes.

JNCC, (1998). Species Action Plans. UK BAP, English Nature, JNCC

SEWBREC Data Search supplied through Aderyn **Ref No 0223-009** April 2022

## Appendix I

Fig 1 Suitable design for reptile exclusion fencing



## **Appendix II**

### **Map Showing Habitats Present**

TerrAqua Ecological Services Ltd

Land off Pentir y De, Rhooose

for Persimmon East Wales

Preliminary Ecological Assessment (PEA)

SCALE :  
1 : 1500

DATE :  
4/22/2022

MAP FILENAME :  
TQ/Pers: Rhooose PEA. v1

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The main map displays a large orange-colored area representing the site. It is divided into several sections labeled F1 through F6 and H1 through H10. F1 is a large central area labeled 'A'. F2, F3, F4, F5, and F6 are smaller areas labeled 'SI'. H1 through H10 are areas along the perimeter and within the site, labeled 'H'. Three target notes are marked with red dots: TN1, TN2, and TN3. The map also shows a road network, buildings, and a site boundary. A north arrow is located in the top right corner.

Legend

Bare Earth/Footpath

Semi-improved Grassland

Tall Herb

Scrub: Dense continuous

A

Arable

Hedgerow

H1 - H10

TN1 - TN2

Site Boundary