



STILES HAROLD WILLIAMS PARTNERSHIP LLP

Land Adjoining Willows Caravan Park, Lidsey Road, Woodgate

- Reptile Presence / Absence Survey Report

Planning Issue

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SUMMARY

Lizard Landscape Design and Ecology has been commissioned to undertake a *Reptile Population Class Assessment Presence / Absence Survey* of the land proposed for development adjacent to Willows Caravan Park, Lidsey Road, Woodgate (*Grid Reference: SU 938 040 – hereafter referred to as 'the site'*).

The surveys were recommended within the Preliminary Ecological Appraisal undertaken by Lizard Landscape Design and Ecology on the 13th June 2017, due to habitats on-site being identified as having the potential to support protected species of reptiles. This report outlines the results of the reptile survey and has been prepared by George Sayer (*BSc(Hons) PgDip, Assistant Ecologist – Lizard Landscape Design and Ecology*). The report has been reviewed by Joe Jackson; (*Director; Landscape Architect BA (Hons) LA DipLA CMLi; Lizard Landscape Design and Ecology*).

20 no. artificial reptile refugia were laid out around the area on 1st August 2017 and allowed to settle for 13 days prior to commencement of the survey. 07 no. site visits were conducted, where the number, species, age and sex of any reptiles present was recorded.

No reptiles were recorded during the survey undertaken during 2017. Given that the majority of the suitable habitat surrounds a grass field and allotment, it is likely that the suitable reptile habitats on the site are too immature to have been colonised by reptiles. The survey strongly suggests that the site area potentially affected by development is not of value to the *Favourable Conservation Status* of reptiles within the vicinity. Moreover the results suggest that reptiles should not be an ecological constraint to these development proposals. There is a '*negligible*' risk of killing and / or injuring reptiles during the construction process.

The survey was undertaken during the late summer/early autumn, and within suitable weather conditions; it is therefore considered very unlikely that the results could represent a false negative. Small populations of reptiles can be difficult to identify, however the negative results obtained should provide adequate reassurance that development can proceed without legislative contravention of legal framework protecting reptiles within England and Wales (*The Wildlife and Countryside Act 1981*).

The proposals include ecological enhancements which would represent an overall increase in the reptile potential of the site.

1.0 INTRODUCTION

- 1.1 Lizard Landscape Design and Ecology has been commissioned to undertake a Reptile Population Class Assessment Presence / Absence Survey of the land proposed for development adjacent to Willows Caravan Park, Lidsey Road, Woodgate (*Grid Reference: SU 938 040 – hereafter referred to as 'the site'*).
- 1.2 The surveys were recommended within the Preliminary Ecological Appraisal undertaken by Lizard Landscape Design and Ecology on the 13th June 2017, due to habitats on-site being identified as having the potential to support protected species of reptiles. The detailed reptile survey has been carried out in accordance with relevant best practice guidelines; this report outlines the results of the reptile survey and has been prepared by George Sayer (*BSc(Hons) PgDip, Assistant Ecologist – Lizard Landscape Design and Ecology*).

Site Description

- 1.3 The site consists of a field of improved and semi-improved grassland surrounded by mixed treelines and hedgerows. The field margins are narrow and dominated by tall ruderal vegetation. To the north of the site is a small allotment area, surrounded by tall ruderal and dense scrub vegetation.
- 1.4 The site is approximately 7.40 metres above sea level and measures approximately 1.55 ha. The site is bordered to the east by Willows Caravan; to the west by Lidsey Road and residential properties; to the north by the access road and residential properties beyond, and to the south by an industrial property. Soils on site are described as loamy soils with naturally high groundwater.
- 1.5 The site is located within the small residential settlement of Woodgate. The local area contains a mixture of land uses, dominated by arable agriculture, horticultural and pastoral land, residential dwellings and caravan parks.

Survey Rationale

- 1.6 Development proposals propose the removal and disturbance of areas of suitable reptile habitat to the site boundaries, without suitable mitigation this could result in a contravention of *The Wildlife and Countryside Act 1981 (As Amended)*. The habitats considered to hold potential for reptiles consist of: tall ruderal field margins; tall ruderal and dense scrub vegetation surrounding an allotment; introduced shrubs within the allotment. The habitats are recorded within *LLD1198-ECO-FIG-002 – Location of Artificial Reptile Refugia*.

Development Proposals

- 1.7 The development proposals consist of the construction of 16 no. residential dwellings, in a small residential development centrally arranged around a communal green and play area. The site would include a work hub and communal orchard, SUDS scheme and water retention pond. Soft landscape areas would include areas of woodland play and walks, understorey planting, an ecology park and flowering grassland patches. The dwellings would be serviced by a new road within the site, which would enter the site along the existing site access from Lidsey Road.

Widespread Reptiles & Legislation

- 1.8 The common or viviparous lizard (*Lacerta vivipara*) has a wide range over most of Europe. Its body can reach 7.0 cm in length and can have very variable patterns and colour. Slow worm (*Anguis fragilis*) is also found over most of Europe; it can reach lengths of up to 50.0 cm and is typically brown, grey, or reddish, with females frequently having a dorsal stripe. Grass snake (*recently re-described as* *Natrix helvetica*) may reach up to 120.0 cm in length and is thick-bodied – many have a distinct yellow-black bordered collar around the neck. Adders (*Vipera berus*) have a characteristic diamond pattern along their backs.

- 1.9 Adders, grass snakes, common lizards and slow worms are protected against killing, injury or sale under *The Wildlife and Countryside Act 1981*. Developments that could predictably kill or injure reptiles could result in an offence. Furthermore, these species are targets of UK and Local Biodiversity Action Plans and listed as *Species of Principle Importance* under *Section 41* of the *Natural Environment and Rural Communities Act 2006*. This obligates local authorities to have regard to the purpose of conserving biodiversity, with particular emphasis on targeted species.

2.0 SCOPE OF THE SURVEY

- 2.1 The aim of the reptile survey was:
- *To identify the presence / absence of reptile species within the site as a whole;*
 - *To estimate population size classes for said populations; and;*
 - *To advise mitigation for reptiles within the proposed development scheme.*

3.0 METHODOLOGY

- 3.1 20 no. artificial reptile refugia (*roofing felt; 0.50 x 1.0 m²*) were laid out around the area on 1st August 2017 and allowed to settle for 13 days prior to commencement of the survey.
- 3.2 07 no. site visits were conducted, where the number, species, age and sex of the reptiles present were recorded.

- 3.3 Surveys were undertaken during recommended times (08:00–11:00 and 16:00–18:30) with suitable weather conditions for surveying reptiles (*guidelines recommend temperatures 9-18°C with intermittent or hazy sunshine during warm days*). Weather conditions recorded at each survey visit are shown in Table No. 1 below.

Table No. 1 - Details of Weather Conditions during the Reptile Surveys

Survey	Date of Visit	Time	Weather
01	14.08.17	16:00	20.5°C – Dry, Wind F2, cloud 5/8.
02	24.08.17	16:00	19.0 °C – Dry, Wind F1, Cloud 5/8.
03	01.09.17	08:50	14.0 °C – Dry, Wind F1, Cloud 1/8.
04	04.09.17	18:00	17.0 °C – Occasional light rain, Wind F2, Cloud 8/8.
05	06.09.17	09:00	16.0 °C – Dry, Wind F1, Thin Cloud 4/8.
06	08.09.17	08:55	15.0 °C – Dry, Wind F3, Cloud 7/8.
07	12.09.17	09:00	17.0 °C – Dry, No Wind, Cloud 2/8.

3.4 Evaluation Methodology

- 3.4.1 Despite its withdrawal, *Natural England Technical Information Note TIN102* still provides a valuable resource tool to allow the comparison and evaluation of reptile populations on site. A population size class category has been derived using guidance provided by the *Key Reptile Site Register Mechanism (Froglife – Advice Sheet 10)*, designed to promote the protection of key reptile areas.
- 3.4.2 The criteria for key reptile site selection include:
- 1) *supports 3 or more reptile species;*
 - 2) *supports 2 snake species;*
 - 3) *supports an exceptional population of one species (see Table No. 02);*
 - 4) *supports an assemblage of species scoring at least 4 (see Table No. 02);*
 - 5) *supports a local rarity or even adder with low population score.*

- 3.4.3 The population size classes used in this instance are provided in *Froglife – Advice Sheet 10* and displayed in Table No. 02.

Table No. 02 – Population Scores for Selection of Key Reptile Sites

Species	'Low' Score 1	'Good' Score 2	'Exceptional' Score 3
Adder	< 5	5 – 10	> 10
Grass Snake	< 5	5 – 10	> 10
Common Lizard	< 5	5 – 20	> 20
Slow Worm	< 10	5 – 20	> 20

- 3.4.4 Figures in Table No. 02 refer to the maximum number of reptile adults seen by observation and / or under refugia by one person during one survey visit with artificial refugia placed at a maximum density 10/ha.

4.0 RESULTS

4.1 Background Information

- 4.1.1 UK and Sussex Biodiversity Action Plan species of slow worm (*Anguis fragilis*) and Grass snakes (*Natrix natrix*) have all been recorded within 2.0 km of the development site, on the outskirts of the village of Barnham to the east.

4.2 Field Survey

- 4.2.1 No reptiles of any species were recorded during the reptile survey undertaken during the Summer 2017.
- 4.2.2 An anecdotal report of a grass snake (*Natrix matrix*) having been present at some time on the site was made to the surveyors; the presence of a grass snake within the vicinity seems likely given the damp nature of the locality and suitable habitats available. No grass snakes were observed during the reptile survey however.

Constraints and Limitations

- 4.2.3 No major constraints or limitations were encountered during the survey. A minor constraint was recorded in that habitat management (*mowing*) of some of the suitable reptile habitat was undertaken during the survey. Although this would have been likely to disturb reptiles, the fact that no reptiles were found under undisturbed refugia suggests that there are no reptiles present within the site.
- 4.2.4 The time of year during which the surveys were undertaken is generally considered '*suitable*' rather than '*optimal*'; special attention was therefore paid to timing and weather conditions of surveys, to ensure that reptiles would be encountered should they be present.

5.0 EVALUATION

- 5.1 No reptiles were recorded during the survey undertaken during 2017. The survey strongly suggests that the site area potentially affected by development is not of value to the *Favourable Conservation Status* of reptiles within the vicinity. Moreover the results suggest that reptiles should not be an ecological constraint to these development proposals. There is a '*negligible*' risk of killing and / or injuring reptiles during the construction process.
- 5.2 Small populations of reptiles can be difficult to detect, but the negative results obtained should provide adequate reassurance that development can proceed without legislative contravention of legal framework protecting reptiles within England and Wales (*The Wildlife and Countryside Act 1981*).
- 5.3 The survey was undertaken during the late summer and early autumn during suitable weather conditions. It is therefore considered very unlikely that the results could represent a false negative.
- 5.4 Given that the majority of the suitable habitat surrounds a grass field and allotment, it is likely that the suitable reptile habitats on the site are too immature to have been colonised by reptiles.

- 5.5 An anecdotal report of a grass snake (*recently re-described as *Natrix helvetica**) having been present at some time on the site was made to the surveyors; the presence of a grass snake within the vicinity seems likely given the damp nature of the locality and suitable habitats available. Grass snakes can however be wide-ranging and the snake would be likely to use other local habitats, especially surrounding the river. The favourable conservation status of grass snakes within the vicinity would therefore not be impacted by the loss of this habitat. The snake was not observed during the survey, and given their mobile nature would be able to vacate the site during construction works. Treelines and hedges on the site are proposed for retention and protection, which would provide adequate protection for an individual reptile during the works.
- 5.6 The proposals include for a new ecology park, flowering grassland patches, attenuation pond and community orchard. These habitats would be very suitable for reptiles and therefore the proposals would represent an overall improvement in the site's reptile potential.

6.0 REFERENCES

Griffiths, R. A. and Inns, H. (1998): Surveying - Herpetofauna Workers' Manual

Gent, A. H. & Gibson, S. D. (Eds.): Joint Nature Conservation Committee, Peterborough, Pp. 1–6

www.arc-trust.org: Herptile Conservation Trust and Froglife Merged in 2009

Guidelines from Froglife (Factsheet 10): Froglife; 1999

Natural England Technical Information: Note TIN102; Natural England; 2011

Appendix No. 1 – Full Survey Report

STILES HAROLD WILLIAMS PARTNERSHIP LLP
LAND ADJOINING WILLOWS CARAVAN PARK, LIDSEY ROAD, WOODGATE
REPTILE PRESENCE / ABSENCE SURVEY REPORT
LLD1198-ECO-REP-002-Reptile Survey Report-Rev01-05_02_18

Appendix No.1 – Reptile Artificial Refugia Survey Full Results

Site: Land Adjoining Willows Caravan Park, Lidsey Road, Woodgate

Client: Stiles Harold Williams Partnership LLP

Surveyor: GS/LM

Visit	Date	Time	°C	Weather	Tile No.	Species	Ad/J
01	14.08.17	16:00	20.5	Dry, Wind F2, Cloud 5/8.	No reptiles seen.		

Visit	Date	Time	°C	Weather	Tile No.	Species	Ad/J
02	24.08.17	16:00	19	Dry, Wind F1, Cloud 5/8.	No reptiles seen.		

Visit	Date	Time	°C	Weather	Tile No.	Species	Ad/J
03	01.09.17	08:50	14	Dry, Wind F1, Cloud 1/8.	No reptiles seen.		

Visit	Date	Time	°C	Weather	Tile No.	Species	Ad/J
04	04.09.17	18:00	17	Occasional light rain, Wind F2, Cloud 8/8.	No reptiles seen.		

Visit	Date	Time	°C	Weather	Tile No.	Species	Ad/J
05	06.09.17	09:00	16	Dry, Wind F1, Thin Cloud 4/8.	No reptiles seen.		

Visit	Date	Time	°C	Weather	Tile No.	Species	Ad/J
06	08.09.17	08:55	15	Dry, Wind F3, Cloud 7/8.	No reptiles seen.		

Visit	Date	Time	°C	Weather	Tile No.	Species	Ad/J
07	12.09.17	09:00	17	Dry, No Wind, Cloud 2/8.	No reptiles seen.		

SW = Slow Worm; CL = Common Lizard; CT = Common Toad;
GS = Grass Snake; M = Male; F = Female; Ad = Adult; Im = Immature;
J = Juvenile.