agb ENVIRONMENTAL

Reptile Survey Report

Saxon Business Park, Cherry Orchard Way, Southend – Residential Development

Client Name: Cherry Orchard Homes and Villages Ltd.

Project Number: P2665.13.0B

Date: 30 August 2017

ENABLING DEVELOPMENT

Client	Cherry Orchard Homes and Villages Ltd
Site	Saxon Business Park, Cherry Orchard Way, Southend
Report reference	P2665.13.0B
Prepared by	Owen Jones BSc (Hons), Ecologist
Reviewed by	Claire Browne BSc (Hons) MSc MCIEEM, Senior Ecologist
Approved by	Cassie Todd BSc (Hons) MCIEEM, Principal Ecologist
Date	30 August 2017
Version	Final

agb Environmental Ltd has prepared this document in accordance with the instructions of its client, Cherry Orchard Homes and Villages Ltd, for their sole and specific use and has been prepared based on a scope of works which has been agreed directly with the client.

agb Environmental Ltd Terms and Conditions apply.

Newmarket Business Centre
341 Exning Road, Newmarket, CB8 0AT
Tel: 01638 663226 www.agbenvironmental.co.uk

agb Environmental Ltd

1 Summary

Site	Saxon Business Park, Cherry Orchard Way, Southend
Central OS Grid Reference	TQ 85972 89964
Report Commissioned by	Cherry Orchard Homes and Villages Ltd
Date of Survey	Between 4th May and 10th August 2017.

Considerations	Description	Comments
Value of the Site for Reptiles	The site comprised rough grassland, ruderal vegetation, dense and scattered scrub, rubble and brash piles and broadleaved trees.	No reptiles were recorded during the surveys. The site was considered to be of **negligible importance** for reptiles.
Avoidance and General Mitigation	**Reptiles were likely absent**	In the unlikely event that a reptile is encountered during construction, stop works immediately and contact an ecologist for advice.
Enhancements	Hedgerow planting	Plant a native hedge along the northern boundary to improve habitat connectivity.
	Shelter	Create hibernaculum and / or log piles to provide shelter for reptiles.

Contents

2 Introduction

2.1 Background

agb Environmental was commissioned by Cherry Orchard Homes and Villages Ltd to undertake a reptile survey at Saxon Business Park, Cherry Orchard Way, Southend, hereinafter referred to as the 'site'. The surveys are in accordance with recommendations made in the Preliminary Ecological Appraisal (PEA) (agb Environmental Ltd, 2016). This report comprises a desk study, habitat assessment and the results of reptile surveys. General avoidance, mitigation and enhancement measures for reptiles are included in this report where applicable.

2.2 Site Location and Description

The site was c. 3.7 ha and situated within a suburban location to the west of the town of Rochford and centred around Ordnance Survey Grid Reference TQ 85972 89964. The initial habitat survey identified potential reptile habitat at the site, particularly the areas of rough grassland, ruderal vegetation and scattered scrub within the southern half of the site.

2.3 Development Proposals

The site comprised c. 0.9ha rough grassland and c. 0.6ha scrub, which will not be retained post development. Approximately 1.5ha of habitat with potential to support reptiles will be removed to enable the development.

The proposal is to develop the site for mixed residential and commercial use comprising: 85 bed nursing home, 22 two-storey dwellings, 10 bungalows, an assisted living unit, sheltered accommodation, a nursery and health centre, retail, commercial and leisure, formal and informal public open space, parking and access infrastructure

The plans require the removal of all existing habitats on the site. Trees forming the site boundary will be retained and a biodiversity enhancement area is proposed which will comprise: native hedging, trees, wetland, and Sustainable Urban Drainage System (SUDS).

2.4 Legislation and Policy

All UK reptiles are partially protected under Schedule 5 of the *Wildlife and Countryside Act* (*WCA*) (HMSO, 1981). It is an offence to:

- intentionally kill or injure these animals; and
- sell, offer for sale, advertise for sale, possess or transport for the purposes of selling any live or dead animals or part of these animals.

Reptiles are a material consideration in determining planning applications under the *National Planning Policy Framework* (*NPPF*) *2012* guidance. The Government Circular on *Biodiversity and Geodiversity (06/2005)* also states that it is essential that the presence of protected species, and the extent to which they may be affected by a development proposal is established before planning permission is granted (DCLG 2012; 2005).

Reptiles are also listed as Species of Principal Importance in England and as Local Biodiversity Action Plan species.

2.5 Objectives

The reptile survey and this report aim to meet the following objectives:

- Determine the presence or likely absence of reptiles at the site;
- Assess the likely population size class if reptiles are present;
- Outline any potential impacts on the reptile population; and
- Recommend avoidance and mitigation that comply with reptile legislation, planning policy and guidance, if required.

3 Methodology

3.1 Surveyor Information

The surveys were undertaken by the following suitably experienced agb Environmental staff:

- Ecologist Owen Jones BSc (Hons) who has 12 years' experience with reptile surveys;
- Assistant Ecologist Henry Smith BSc (Hons) GradCIEEM who has 3 years' experience with reptile surveys; and
- Assistant Ecologist Emma Thomas BSc (Hons) who has 2 years' experience with reptile surveys.

3.2 Habitat Assessment

The survey involved a site visit on the 26th May 2016 to record and map habitat types and ecological features. The survey was undertaken in accordance with *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2013) and the general principles and methods outlined in the *Handbook for Phase 1 Habitat Survey* (JNCC, 2010). Refer to the Preliminary Ecological Appraisal Report for more detailed information (agb Environmental Ltd, 2016). The ecologist also assessed the habitats adjacent to the site for potential to support reptiles.

3.3 Data Search

The Multi-Agency Geographical Information for the Countryside (MAGIC) website was accessed in May 2016 for information on any statutory sites designated for reptiles within a 2km radius. Essex Field Club was also consulted on the 11th May 2016 for non-statutory sites designated for reptiles, and reptile records within a 2km radius.

3.4 Reptile Survey – Presence / Likely Absence

Sixty felt mats, measuring 0.5 m², were placed within suitable grass and scrub-edge habitat on-site on the 19th April 2017 (**Appendix 1**). This equates to a density of 16 refuges / ha, which exceeds the minimum density recommended in standard guidance (JNCC, 2003; Froglife, 1999).

The refuges were left undisturbed for two weeks before the survey commenced to allow any reptiles present time to find them.

Seven survey visits took place between 4th May and 10th August 2017 in temperatures of 12-18^0 C, and in dry conditions with no / little wind (**Table 3.1**). Reptile activity depends on the weather conditions. The air temperature, wind, rain, and cloud cover were therefore recorded during each survey visit.

The ecologist slowly approached each refuge and searched for reptiles basking on top and sheltering beneath. The habitat between the refuges was also checked for reptiles during each survey visit. The species, life stage, and sex were recorded where possible upon each reptile sighting.

Table 3.1: Reptile survey dates and weather conditions.

Survey Visit	Date	Weather Conditions
Refuges laid	19th April, 2017	N / A
1	4th May, 2017	14°C, 90% cloud, Beaufort 1, no rain
2	11th May, 2017	16°C, 50% cloud, Beaufort 1, no rain
3	15th May, 2017	17°C, 40% cloud, Beaufort 1, no rain
4	31st May, 2017	16°C, 30% cloud, Beaufort 1, no rain
5	5th June, 2017	17°C, 90% cloud, Beaufort 2, no rain
6	17th July 2017	18°C, 60% cloud, Beaufort 1, no rain
7	10th August 2017	17°C, 100% cloud, Beaufort 1, no rain

3.5 Evaluation and Impact Assessment

An evaluation of the status of reptiles within the site and an assessment of the likely impact of the development on reptiles has been made with reference to the *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial and Freshwater* (CIEEM, 2016).

3.6 Limitations and Assumptions

The survey was undertaken in optimal conditions between May and August 2017, when reptiles were known to be active locally.

More refuges were used during this survey than recommended in the standard guidance (Froglife 1999). Therefore, there is a high degree of confidence that reptiles are likely to be absent from the site.

The survey represents a valid assessment of the site's reptile status. The results of this survey will remain valid for two years (i.e. August 2019), assuming the site conditions remain unchanged during this time.

4 Results and Evaluation

The results of the desk study and field surveys are set out below, together with an evaluation of reptiles within the site.

4.1 Desk Study

No statutory or non-statutory sites designated for reptiles were located within 2km of the application site.

The table below lists the reptile records returned by the Essex Field Club.

Table 4.1: Reptile records within 2km of the site for the last ten years.

Species	Protection	Nearest and Most Recent Records
Slow-worm *Anguis fragilis*	WCA[1], SPIE[2].	38 records, the nearest was c. 1.4km north-west from 2012.
Adder *Vipera berus*	WCA, SPIE.	Three records, the nearest was c. 1.2km south-east from 2012.
Common lizard *Zootoca vivipara*	WCA, SPIE.	14 records, the nearest was c. 1.7km north-west from 2008.
Grass snake *Natrix natrix*	WCA, SPIE.	14 records, the nearest was c. 1.3km north-east from 2012.

4.2 Habitats

Habitats that were suitable for reptiles within the site comprised rough grassland, ruderal vegetation, rubble piles, brash piles, dense and scattered scrub. Refer to **Appendix 1** for a map of the habitats noted within the site and the PEA Report for detailed habitat descriptions (agb Environmental Ltd, 2016).

Photo 1: Rough grassland facing east.

[1] Wildlife and Countryside Act (HMSO, 1981)
[2] Species of Principal Importance in England (HMSO, 2006).

4.3 Reptile Survey

No reptiles were recorded during the survey and are therefore likely to be absent from the site (**Table 4.2**). The site was therefore of **negligible** importance for reptiles.

Table 4.2: Reptile survey results.

Survey Visit	Date	Reptile Records
1	19th April, 2017	No reptiles recorded
2	4th May, 2017	No reptiles recorded
3	11th May, 2017	No reptiles recorded
4	15th May, 2017	No reptiles recorded
5	31st May, 2017	No reptiles recorded
6	5th June, 2017	No reptiles recorded
7	17th July 2017	No reptiles recorded
	Peak Adult Count	**0**

5 Impact Assessment

Impacts to reptiles arising from the development proposal are expected to be **negligible** within the construction zone, as reptiles are likely to be absent.

6 General Recommendations for Avoidance, Mitigation, and Enhancement

Impacts to reptiles from the development are considered **negligible**. The development can therefore proceed without constraints posed by reptiles. In the unlikely event that a reptile is encountered during construction, stop works immediately and contact an ecologist for advice.

It may be possible to encourage reptiles to use the development on completion by incorporating the following enhancement measures, in line with NPPF guidance:

- Plant a native hedge on the northern boundary to improve habitat connectivity for reptiles, and other wildlife between the development site and adjacent habitats.
- Create compost heaps, hibernacula and / or log piles within sheltered areas of the site (see **Appendix 2**) to provide refuge for reptiles. Create hibernacula by filling holes (minimum 2m by 1m in extent, and up to 50cm deep) with rubble and logs from native hardwood species. Turf hibernacula roofs, but maintain access opportunities for reptiles and amphibians.

7 Conclusion

The development can proceed with minimal impact to reptiles. Measures to enhance the development post-construction have also been recommended in **Section 6.1** in line with NPPF.

8 References

agb Environmental Ltd, 2016. Newmarket: agb Environmental Ltd.

CIEEM, 2013. *Guidelines for Preliminary Ecological Appraisal.* Winchester: CIEEM.

CIEEM, 2016. *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal.* 2nd ed. Winchester: CIEEM.

Department for Communities and Local Government, 2005. *Biodiversity and geological conservation:circular 06/2005,* London: HMSO.

DGLG, 2012. *National Planning Policy Framework,.* [Online] Available at: http://www.communities.gov.uk/publications/planningandbuilding/nppf.

English Nature, 2001. *Great Crested Newt Mitigation Guidlines.* Peterborough: English Nature.

Froglife, 1999. *Froglife Advice Sheet 10 Reptile Survey: An Introduction to Planning, Conducting and Interpreting Surveys for Snake and Lizard Conservation.* Peterborough: Froglife .

Herpetofauna Groups of Britain and Ireland (HGBI), 1998. *Evaluating local mitigation / translocation programmes: maintaining best practice and lawful standards. HGBI advisory notes for Amphibian and Reptile Groups (ARGs). c/o Froglife.,* Halesworth]: Unpubl.

HMSO, 1981. *The Wildlife and Countryside Act,* London: HMSO.

HMSO, 2006. *Natural Environment and Rural Communiuties Act (NERC Act),* London: HMSO.

HMSO, 2010. *The Conservation of Habitats and Species (Amendment) Regulations,* London: HMSO.

JNCC, 2003. *Herpetofauna Workers' Manual.* Peterborough: JNCC.

OS, 2017. *Wheres The Path 3: Ordnance Survey.* [Online] Available at: http://wtp2.appsport.com/wheresthepath.htm [Accessed 20th December 2017].

Appendix 1 Reptile Survey Map

REV	DATE	DESCRIPTION

LEGEND

- Site boundary
- Dense scrub
- Tree / shrub (Indicative)
- Rough grassland
- Tall ruderal vegetation
- Wet ditch / river
- Rubble pile
- Short grassland
- Fence
- Dry ditch
- Hardstanding / bare ground
- Portacabin
- Building
- Japanese knotweed
- Reptile Refugia

LOCATIONS ARE APPROXIMATE.

PROJECT

SAXON BUSINESS PARK,
CHERRY ORCHARD WAY, SOUTHEND

TITLE

REPTILE SURVEY

CLIENT

CHERRY ORCHARD HOMES
AND VILLAGES LTD

agb ENVIRONMENTAL

agb Environmental Ltd

Newmarket Business Centre, 341 Exning Road,
Newmarket, CB8 0AT
Tel: 01638 663 226
Email: info@agbenvironmental.co.uk
Web: www.agbenvironmental.co.uk

DATE 30/08/17
SCALE 1:1000

PROJECT NUMBER . DRAWING NUMBER

P2665.2 . 002

Appendix 2 Hibernaculum Design

Figure A2.1: Hibernaculum design (English Nature, 2001).