

Reptile Survey Report 2015

Land at Wenny Road, Chatteris, Cambridgeshire

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Notice to Interested Parties

To achieve the study objectives stated in this report, we were required to base our conclusions on the best information available during the period of the investigation and within the limits prescribed by our client in the agreement.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Thus, we cannot guarantee that the investigations completely defined the degree or extent of e.g. species abundances or habitat management efficacy described in the report.

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0 EXECUTIVE SUMMARY

- On behalf of Cannon-Kirk (UK) Ltd, Cambridge Ecology Ltd was commissioned by Savills to carry out a Reptile survey of land at Wenny Road, Chatteris, Cambridgeshire. The survey was required to investigate the likely presence of reptiles, which include protected species, on the land within and adjacent to the development site, which could potentially be affected by a proposed residential development at the site. The proposed development would provide new housing on the site.
- 0.2 In order to ensure compliance to legislation pertaining to reptiles, a series of surveys were carried out from early April to early June 2015. The reptile survey followed recognised standard methods and was considered to provide a robust set of data, suitable to evaluate the presence of reptiles within the survey areas and identify any potential ecological constraints requiring particular attention.
- 0.3 The 2015 reptile survey results indicated that a small population size of Common Lizard was present within the red line boundary of the development site. The observation of juvenile Common Lizard would suggest that adults were also present and that there was a breeding colony within the proposed development site.
- O.4 Common Lizards were found in two locations, one at the northern part of the site and one in the middle area. However, as a consequence of the low population density and the distribution of suitable habitat, it was considered likely that the species would be present across the entire site in low numbers.
- 0.5 In a wider context of Cambridgeshire, the population of Common Lizard with the proposed development site was considered of district conservation value.
- 0.6 The presence of reptiles within the red line boundary of the development site would require that certain mitigation measures be implemented to ensure legal compliance was maintained pertaining to reptiles.
- 0.7 Recommendations have been made that would; firstly aim to ensure legal compliance pertaining to reptiles in the lead up to and during any potential construction works and secondly to retain, enhance and create habitat suitable for Common Lizard to meet local and national planning policy guidelines. The development of an ecological management plan (EMP) for the development site, would provide a mechanism by which the recommendations described in this report would be incorporated into the scheme design. The EMP would also provide details about the management procedures and measures necessary to ensure that the habitats created and features incorporated are maintained in a favourable condition in the long term.

1 INTRODUCTION

Background to the study

- 1.1 On behalf of Cannon-Kirk (UK) Ltd, Cambridge Ecology Ltd was commissioned by Savills to carry out a Reptile survey of land at Wenny Road, Chatteris, Cambridgeshire. The survey was required to investigate the likely presence of reptiles, which include protected species, on the land within and adjacent to the development site, which could potentially be affected by a proposed residential development at the site.
- An investigation of biological records carried out during the literature search as part of the Extended Phase 1 Habitat Survey (Cambridge Ecology 2014) showed that within the last 10 years, there had been no records of reptiles in close proximity (within 2km) of the proposed development site. However, the results of the Extended Phase 1 Habitat Survey carried out in November 2014 identified habitats present within the proposed development site that had potential to support reptiles.
- 1.3 Figure 1.1 shows the red line boundary of the Wenny Road site that formed the reptile survey area.

Aims and objectives

- 1.4 The purpose of the 2015 reptile survey was to confirm likely presence/absence of reptiles with the survey area. If reptiles were found to be present, the aim of the study would be to:
 - identify the species of reptiles present.
 - identify the likely distribution of reptiles within the survey area.
 - indicate the likely population size classes present within the survey area.
 - suggest how any reptiles found within the survey area are using the site.
- 1.5 The data gathered would be used to help inform and develop appropriate and proportionate mitigation measures, that may be necessary to ensure legal compliance pertaining to wildlife legislation in relation to reptiles and meet local and national planning policy requirements, such as the national Planning Policy Framework 2012 (NPPF 2012).
- 1.6 The key principles in the NPPF require that "the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and delivering net gains in biodiversity where possible."

1.7 This report summarises the background to the study and details the results and key findings of the 2015 Reptile Survey. The up-to-date data may then be used to provide guidance on the need for and design of any appropriate mitigation and enhancement measures. These measures may be necessary to minimise any potential adverse effects of the new development proposals on reptiles and help the design of any appropriate ecological enhancement measures such as habitat creation and site management for the benefit of reptiles.

Study Area and Development Proposals

- 1.8 The reptile survey area was defined as the area within the red line boundary of the proposed development site as illustrated in Figure 1.1. Due to the size and nature of the development and the character of the surrounding habitats an additional area to comprise a potential zone of influence was not considered necessary.
- 1.9 The area beyond the site boundary to the north and west was not included in the field survey because it comprised entirely of a built environment with residential properties and roads, and therefore of very limited ecological value, while access to these areas was not possible. To the east and south the site was bordered by a main road, arable land and additional residential properties and therefore was also of very limited ecological value for reptiles.
- 1.10 For clarity in this report reference to the 'development site' comprises the red line boundary of the proposed development site. For this study the 'survey area' also includes the red line boundary of the proposed development site only, there is no additional area that would form a zone of influence.
- 1.11 The habitats present within the survey area are detailed in Extended Phase 1 Habitat Survey Report 2014 (Cambridge Ecology 2014). These habitats comprised improved grassland some of which is grazed by horse, hedgerow edges, wet and dry ditch edges, tall ruderal, scrub, and edges of the deciduous woodland belts. The habitat with negligible benefit to reptiles was located in the arable fields and horse paddocks.
- 1.12 The development site was located approximately 1 kilometre to the south east of Chatteris town centre and is bordered to the north and west by residential properties, part of Chatteris town and the west and south by the A142 road. Chatteris lies approximately 28km north of the city of Cambridge. The centre of the site is situated at Grid Ref TL 400 856. The total area of the development site covers an area of approximately 26 hectares (ha).
- 1.13 The land beyond the A142 on the east and southern boundary of the development site and in the wider area around Chatteris is primarily intensively farmed arable land. It was considered that this arable land and the associated drainage ditches, which were sparsely vegetated and heavily engineered, would be unlikely to be suitable for reptiles. In addition, the

area beyond the A142 was considered to be beyond the maximum potential zone of influence and if reptiles were present in this area, the main A142 road and engineered culverts would act as barrier to the movement of reptiles from these areas onto the development site.

- 1.14 Within the survey area the habitats comprised:
 - Arable land
 - Dry/Wet Ditches
 - Ponds/Standing Water
 - Amenity/Improved grassland
 - Scattered Scrub
 - Scattered Trees/Parkland/Broadleaved Woodland
 - Hedgerows
 - Tall Ruderal
 - Bare ground and Buildings
- 1.15 The development site was primarily used for recreational dog walking and livestock grazing (mainly horses). There was also an active arable field.
- 1.16 The development proposals for the site adjacent to Wenny Road, Chatteris, would consist of various residential properties.
- 1.17 Details of the number of buildings, their design and the layout of the scheme were not available at the time of preparing this report. However it would be expected that the results of this ecology survey (and other species specific surveys in the future) would help provide details that would influence the layout of the scheme and especially the landscaping and habitat creation.

Relevant Legislation

1.18 There are several pieces of legislation and government policy to be aware of with regard to carrying out and interpreting the results of reptile surveys, these include: the Wildlife and Countryside Act 1981 (WCA 1981); the Countryside and Rights of Way Act 2000 (CRoW Act 2000); the Conservation of Habitats and Species Regulations 2010; The Natural Environment and Rural Communities Act (2006); and National Planning Policy Framework 2012 (NPPF 2012).

2 METHODS

2015 Reptile Survey

- 2.1 The indicative location of the artificial reptile refugia distributed within the survey area is given in Figure 2.1.
- 2.2 The survey involved placing over 50 artificial reptile refugia (a mixture of 0.5m x 0.5m sections of roofing felt and 0.5m x 0.5m corrugated metal sheets) at appropriate locations within potentially suitable reptile habitat in the survey area. The density of the refugia in each of the compartments of suitable habitat was at least 10-20/ha. These locations included close to scrub grassland vegetation and where reptiles were most likely to use the refugia for basking and sunning themselves, as well as for purposes of safe refuge. The refugia were placed in situ on the 25th March for at least two weeks before the first survey was carried out. Each artificial reptile refugia was subsequently checked on a total of nine separate occasions between 7th April and 4th June 2015. Surveys were carried out at an appropriate time of day (e.g. in the morning between 0900 and 1130 or in the afternoon between 1300 and 1730), in good weather conditions when the likelihood of observing reptiles is optimal. Checks were carried out both above and below each mat, with additional checks made of other potentially appropriate habitat that occurred within the site.
- 2.3 The surveys were all undertaken based on the various best practice guidance literature including:
 - Herpetofauna Workers' Manual (JNCC 1998)
 - Froglife Advice Sheet 10 An introduction to planning, conducting and interpreting surveys for snake and lizard conversation (1999).
 - Natural England Technical Information Note TIN 102: Reptile Mitigation Guidelines (2011)
- 2.4 Any reptiles found were identified and the sex and age class were determined wherever possible. The particular artificial reptile refugia with which they were associated was recorded.

Limitations and Assumptions

- 2.5 There was a significant amount of public access to the site, numerous (10%) reptile sheets were lost (mainly in the south western part of the survey area) and had to be replaced on several occasions. Therefore some disturbance to the reptile sheets was encountered that could have deterred some reptiles from using the sheets in these areas.
- 2.6 Surveys were timed to correspond with optimal conditions wherever possible on days when general weather conditions were appropriate.

- 2.7 The individual reptiles found were not handled, thus avoiding unnecessary disturbance and distress. Consequently it was not always possible to accurately determine the precise age class and sex of individuals found.
- 2.8 The number of reptiles recorded throughout the course of the survey is likely to be lower than the actual number present on site. Nonetheless, the survey findings are considered to be an accurate representation and assessment of the site's value to reptiles and are considered fully appropriate for informing the design of a mitigation strategy.
- 2.9 The surveys were considered to be robust and the results obtained fit for purpose.

3 RESULTS

2015 Reptile Survey Results

- 3.1 One species of reptile (Common Lizard *Zootoca vivipara*) was found within the development site during the 2015 survey. The indicative locations where the Common Lizards were recorded during the survey are shown in Figures 3.1
- 3.2 Table 3.1 shows the weather conditions, dates and times of the repeat visits undertaken.

Table 3.1 Dates, times and weather conditions of the 9 repeat visits undertaken

| Survey | Date | Time of check | Weather Conditions | |
|--------|----------|---------------|--|--|
| 1 | 07/04/15 | 0900-1030 | Temp = 11°C, Cloud = 50%, Rain = dry, Wind = S 0-5 mph, Sun = sunny intervals | |
| 2 | 15/04/15 | 0915-1100 | Temp = 12°C, Cloud =10%, Rain = dry, Wind = SW 0-5 mph, Sun bright sun periods | |
| 3 | 22/04/15 | 0900-1130 | Temp = 10°C, Cloud = 85%, Rain = dry, Wind = NE 5mph, Sun = overcast, Humidity =71% | |
| 4 | 28/04/15 | 1600 - 1830 | Temp = 11°C, Cloud = 50%, Rain = dry, Wind = WSW 19 mph, Sun = sunny intervals, Humidity = 36% | |
| 5 | 06/05/15 | 0900-1100 | Temp = 10°C, Cloud = 35%, Rain = dry, Wind = SSW 20 mph, Sun = sunny intervals, Humidity =87% | |
| 6 | 11/05/15 | 0900-1100 | Temp = 14°C, Cloud = 20%, Rain = dry, Wind = SW 15 mph, Sun = sunny intervals, Humidity 82% | |
| 7 | 19/05/15 | 0830-1030 | Temp = 10°C, Cloud = 35%, Rain = dry (rain overnight), Wind = WSW 17 mph, Sun = sunny intervals and hazy, Humidity 82% | |
| 8 | 27/05/15 | 0900-1115 | Temp = 14°C, Cloud = 35%, Rain = dry, Wind = W 6 mph, Sun = sunny, Humidity 70% | |
| 9 | 04/06/15 | 0830-1030 | Temp = 14°C, Cloud = 15%, Rain = dry, Wind = SW 4 mph, Sun = prolonged sunny periods, Humidity 70% | |

3.3 The maximum counts of Common Lizard observed on each visit are presented in Table 3.2. The maximum counts refer to the maximum number of individual reptiles seen in one day by one person in each area.

Table 3.2 Maximum counts of individual Common Lizard for each repeat visit in each area

| Visit | Date | No of Common Lizard found |
|-------|-----------------------------|------------------------------------|
| 1 | 07/04/15 | 0 |
| 2 | 15/04/15 | 0 |
| 3 | 22/04/15 | 0 |
| 4 | 28/04/15 | 1 |
| 5 | 06/05/15 | 0 |
| 6 | 11/05/15 | 1 |
| 7 | 19/05/15 | 0 |
| 8 | 27/05/15 | 0 |
| 9 | 04/06/15 | 0 |
| | Highest maximum count | 1 |
| | Total | 2 |

3.4 The total number and maximum counts of Common Lizard per refugia are presented in Table 3.3.

Table 3.3 Survey results for Common Lizard

| Date | Refugia | Con | nmon Lizard | | Max |
|----------|---------|------|-------------|------|-------|
| Date | No. | Male | Female | Juv. | count |
| 28/04/14 | 1 | - | - | 1 | 1 |
| 11/05/15 | L | - | - | 1 | 1 |

- 3.5 As a result of the 2015 reptile survey, a peak count of two Common Lizard were recorded across the whole site. A peak count of one Common Lizard was recorded in the northern eastern area. In the middle area the peak count of one Common Lizard was recorded.
- 3.6 Common Lizard was recorded during two of the nine survey visits and during the morning surveys.
- 3.7 No other species of reptile were recorded during the surveys.
- 3.8 Neither Common Lizards were caught so their sex was not determined, but neither were full grown adults.

4 **EVALUATION**

- 4.1 All species of reptile native to the UK receive some level of legal protection under the Wildlife & Countryside Act 1981 as amended, although the species present in this area, namely Common Lizard, receive limited protection where individual animals are concerned.
- 4.2 The results indicated that Common Lizard were present in both the northern and middle areas, where the improved grassland areas were not grazed by horses.
- 4.3 The total number (1) of Common Lizard found during a single survey visit, indicated that the population size present within the development site should be classified as small (i.e. <5 animals).
- 4.4 In combination, it was considered that the meta-population may also be classed as small, as the peak count recorded during a single survey visit was only one individual animal across the whole site.
- 4.5 The presence of juvenile Common Lizard in the development site would suggest that adult Common Lizard were also present. The juvenile Common Lizard also indicated that this species was breeding in this location and therefore the habitat could support their full life-cycle; including habitats suitable for feeding, breeding and hibernating.
- 4.6 The two different distinct locations where the Common Lizards were found indicated that the population was distributed across the northern and central parts of the site at least. However, as a consequence of the low numbers found and therefore low population density and the distribution of suitable reptile habitat it was considered likely that the species would be present across the entire site (excluding the arable land and livestock grazing areas) in low numbers.
- 4.7 In relation to the presence of Common Lizard across the county of Cambridgeshire and their generally sparse presence in the fens, the results suggested that the population of Common Lizard within the development site should be considered of up to district conservation value.
- 4.8 The development proposals for the new site, would result in a number of direct adverse impacts on the Common Lizard population. These direct impacts would include; (i) habitat loss through land-take, (ii) population isolation through habitat fragmentation, (iii) reduction in quality of habitat and direct mortality.
- 4.9 It is considered likely that the Common Lizard population is already partially isolated from other populations (no biological records for the area, indicate the population is isolated) through habitat fragmentation and would likely be exposed to direct mortality through cat predation from the nearby residential area. Cats are known to be a predator of reptiles (Edgar et.al 2010).

- 4.10 In addition to the direct adverse impacts there would also be a number of indirect adverse impacts, which would include (i) disturbance and (ii) persecution and predation.
- 4.11 The scheme design may also provide potential direct positive effects such as habitat creation, through the creation of new habitat beneficial for the Common Lizard population.
- 4.12 Mitigation measures would be necessary to ensure legal compliance pertaining to the terms of the wildlife protection legislation and the requirements of local and national planning policy.

5 RECOMMENDATIONS

- 5.1 Appropriate mitigation measures are required to avoid potential contravention of wildlife legislation pertaining to reptiles (Common Lizard). This relates to the potential that Common Lizard could be killed during site preparation and construction works at the proposed development site.
- 5.2 In addition, without suitable mitigation there is the potential for loss of Common Lizard habitat during construction and operation of the residential development. Therefore mitigation measures to retain, enhance and create habitat suitable for Common Lizard should also be carried out in order to meet local and national planning policy guidelines and minimise the potential adverse effects of the development.
- 5.3 The mitigation measures to minimise the risk of Common Lizard being killed during the pre-construction and construction works would involve the installation of reptile fencing, reptile capture and translocation to receptor sites. The receptor sites should be located in suitable habitat (existing or created) within the proposed development site. Alternatively, a receptor site would need to be located, secured in perpetuity, prepared to receive reptiles and managed in the long term before any translocation commences.
- 5.4 The habitat should be managed and enhanced to provide suitable habitat to support the full life-cycle of reptiles. This would include the provision of suitable breeding sites, basking areas and hibernation sites, as well as creating a range of habitats to attract invertebrates on which the Common Lizard feed (Edgar et al 2010). The habitat should be created along the length of the boundary features (e.g. hedgerows) and include 10m wide conservation buffer zones. These conservation buffer zones would aim to maintain and enhance the connectivity with adjacent areas and provide appropriate habitats for reptiles and the invertebrates on which they feed.
- The development of a long term (25 year) ecological management plan (EMP) for the development site would provide a mechanism by which the recommendations described here could be incorporated into the scheme design. The EMP would also provide details about the management procedures and measures necessary to ensure the habitats created and features incorporated are maintained in a favourable condition in the long term.
- 5.6 The mitigation and enhancement measures could include features that would help limit the risk of predation of reptiles by domestic cats.
- 5.7 The results of the reptile survey should be used to facilitate the production of a reptile method statement for use prior to commencement of any site clearance and construction works. The method statement would aim to inform and hence minimise the risk of harm to individual reptiles and optimise the effectiveness of the mitigation measures that have been proposed as part of the planning application for the development.

- 5.8 It would be expected that the reptile method statement would:
 - provide details for any Common Lizard capture and translocation programme;
 - identify the location of any receptor sites, ideally within the proposed development site;
 - describe how to create hibernation and breeding sites;
 - detail how the existing habitats will be managed, maintained and enhanced for use by reptiles and maintain/created connectivity between separate areas;
 - detail the design location and installation of reptile barrier fencing;
 - detail the methods for capturing and translocating the reptiles;
 - detail the procedures for any destructive searches made prior to vegetation clearance and construction;
 - describe the role of an appropriately experienced and qualified ecological clerk of work required to oversee any ecological issues that may arise associated with reptiles up to and during any construction work and
 - provide a schedule/timetable of tasks.

6 KEY POINTS AND FINDINGS

- 6.1 Between the 7th April and 4th June 2015 (involving nine visits) a reptile survey took place in the key areas of habitat within the red line boundary of the proposed development site. The survey followed recognised standard methods and was considered to provide a robust set of data, suitable to evaluate the presence of reptiles within the survey areas and identify any potential ecological constraints associated with reptiles.
- The 2015 reptile survey found Common Lizard present within the proposed development site. No other species of reptiles were recorded.
- 6.3 A single visit peak count of one Common Lizard was recorded across the whole site. One Common Lizard was recorded on two separate visits and in two different locations.
- The low number (i.e. <5 animals) of Common Lizard recorded within the proposed development site indicated that the size of population for the site should be classified as small.
- 6.5 In combination, it was considered that the meta-population may also be classed as small, as the peak count recorded during a single survey visit was only one individual animal across the whole site.
- 6.6 In relation to the presence of Common Lizard across the county of Cambridgeshire and their generally sparse presence in the fens, the results suggested that the population of Common Lizard within the development site should be considered of up to district conservation value.
- 6.7 The presence of juvenile Common Lizard in the survey area suggested that a breeding population was present in this area. Thereby indicating that the habitats present in this location could support their full life-cycle.
- 6.8 It is recognised that the development proposals for the site, would result in a number of direct and indirect adverse impacts on the Common Lizard population.
- 6.9 Recommendations have been made that would aim to ensure legal compliance pertaining to reptiles is maintained in the lead up to and during any potential construction works. The measures would involve the installation of reptile fencing, reptile capture and translocations to reduce the opportunity for reptiles to enter future potential construction areas at the site and minimise the risk of Common Lizard being killed during the preconstruction and construction works.
- 6.10 Mitigation and enhancement measures that would aim, where possible to maintain existing suitable habitat; improve connectivity between different habitats and enhance other habitats in the survey area. These measures would be necessary in order to offset the potential effect of habitat loss as a result of the proposed development. A method statement as part of the

mitigation strategy for the development scheme should be prepared, which would describe the tasks and provide a schedule of works necessary to mitigate for any potential effects of the scheme on the local reptile population, including details of a programme for the translocation of the reptiles. These measures would be necessary in order to maintain legal compliance pertaining to wildlife legislation associated with reptiles.

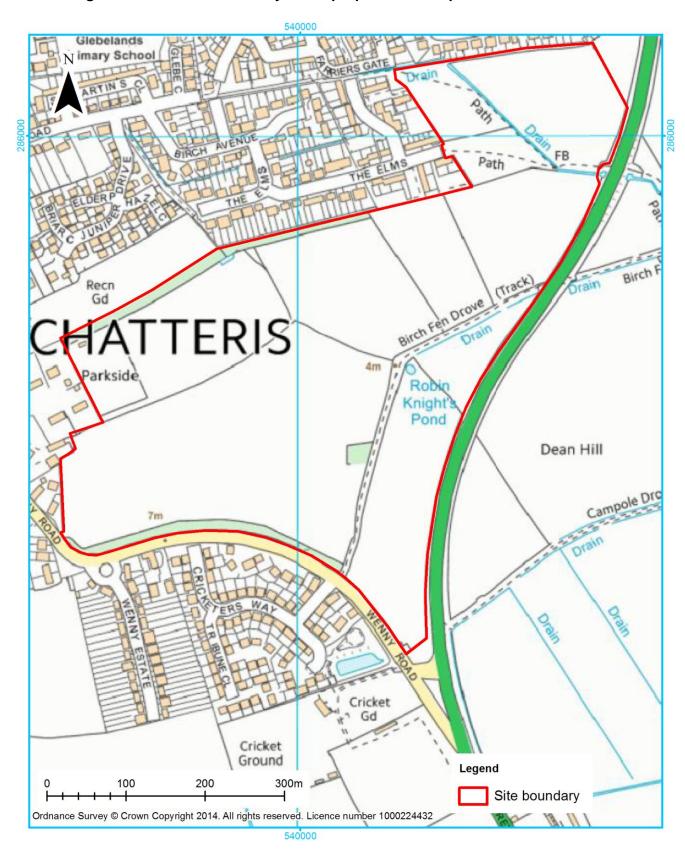
A long term (25 year) Ecological Management Plan (EMP) should be prepared for the site. The EMP would help to ensure the mitigation and enhancement measures described in this report would have the best chance of success. Thereby minimising the potential for the development proposals to have a permanent adverse effect on the Common Lizard population within the site. The EMP should be prepared in-combination with the landscaping plan, to provide a mechanism by which the recommendations described in this report could be incorporated into the scheme design. The EMP would also provide details about the management procedures and measures necessary to ensure the habitats created and features incorporated are maintained in a favourable condition in the long term.

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8 FIGURES

Figure 1.1.: Red line boundary of the proposed development site.



Glebelands imary School Path Parkside Knight Pond Dean Hill 7m Cricket Cricket Ground Legend 300m 200 Site boundary Ordnance Survey © Crown Copyright 2014, All rights reserved. Licence number 1000224432

Figure 2.1.: Extent of the reptile survey area and indicative location of artificial refugia.

Figure 3.1.: Indicative location (red circles) of sightings of Common Lizard during the 2015 survey.

