



Hallam Land Management, Taylor Wimpey UK Ltd, William Davis, Connolly Homes and

Bellcross Homes

South West Milton Keynes

REPTILE REPORT

November 2014

FPCR Environment and Design Ltd

Registered Office: Lockington Hall, Lockington, Derby DE74 2RH

Company No. 07128076. [T] 01509 672772 [F] 01509 674565 [E] mail@fpcr.co.uk [W] www.fpcr.co.uk

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1.0 INTRODUCTION

- 1.1 The following report has been prepared by FPCR Environment and Design Ltd. for a development consortium comprising Hallam Land Management, Taylor Wimpey UK Ltd, William Davis, Connolly Homes and Bellcross Homes. It provides details of a reptile surveys undertaken on land to the southwest of Milton Keynes to support a planning application for the residential development.

Site Location and Context

- 1.2 The subject site is located to the south west of Milton Keynes on the edge of Bletchley. The parcel of land lies between Newton Longville to the south and the A421 Standing Way and B4034 Buckingham Road at its north boundary.
- 1.3 The surrounding landscape comprises mixed arable and pasture farmland to the south and west; established residential development to the north and east; and new development land adjacent to the A421 within Tattenhoe Park to the north.
- 1.4 Despite the dominance of unsuitable habitats associated with intensive agriculture, the site was found to support habitat suitable for use by common reptile species during the initial extended Phase 1 habitat survey where arable margins, hedges and semi-improved grassland were noted.
- 1.5 A strategic reptile presence/absence was therefore recommended in order to establish whether this species might present a constraint and to identify any mitigation required.

2.0 LEGISLATION AND POLICY

- 2.1 All of the common species of reptile that may potentially occur within the site are partially protected under Schedule 5 (Sections 9(1) and 9(5)) of the Wildlife and Countryside Act 1981 (as amended). This legislation protects these animals from:
- Intentional or deliberate killing and injury;
 - selling, offering for sale, possessing or transporting for the purpose of the sale or publishing advertisements to buy or sell a protected species.
- 2.2 Where these animals are present on land that is to be affected by development, the implications are:
- the animals must be protected from injury or killing;
 - mitigation should be provided to maintain the conservation status of the species;
 - following operations the population should be monitored.
- 2.3 All native reptile species are also listed as Species of Principal Importance under S41 of the Natural Environment and Rural Communities Act 2006. (NERC)

3.0 METHODOLOGY

Desktop Study

3.1 In order to compile existing baseline information, relevant ecological information was requested from both statutory and non-statutory nature conservation organisations for the purposes of this appraisal, including:

- Buckinghamshire and Milton Keynes Environmental Records Centre (BMERC)

3.2 Furthermore previous survey work¹ completed in support of an alternative planning application was reviewed for additional information.

Habitat Suitability

3.3 An assessment of the suitability of the habitats within the site for reptile species was undertaken during the initial site survey undertaken between September and November 2012 and it was concluded that suitable reptile habitat existed within the specific areas of the site which could be affected by development.

Presence/Absence Surveys

3.4 A strategic reptile presence/absence survey was therefore undertaken in areas previously identified as offering potential habitat. The survey was undertaken based on the methodology detailed in the Herpetofauna Workers Manual², the Froglife Advice Sheet 10³ and Reptiles: Guidance for Developers⁴. Methods involved a search for basking reptiles on/under naturally occurring and strategically positioned artificial refugia. These were placed in locations that offered the most suitable habitat for common reptiles, i.e. structurally diverse grassland habitats with areas of longer grassland/short vegetation and wetland feature.

3.5 Guidelines recommend that surveys be undertaken during the following periods:

- At temperatures of between 9°C & 18°C;
- On sunny/cloudy days with little or no wind;
- Between 07:00 & 11:00 hrs ('AM survey') and between 16:00 & 19:00 hrs ('PM survey');

In addition guidelines also recommend:

- Using regularly spaced corrugated tin sheeting/similar (0.5 m²) as artificial refugia, with a black upper side;
- Approaching refugia from a downwind direction, casting no shadow and making sure not to disturb basking animals when checking;
- That lifting and replacing tins, to check for the presence of reptiles underneath, is undertaken with care to avoid potential harm to any animals underneath;
- That the location and number of tins are mapped to aid survey and avoid the possibility of leaving tins *in situ* upon completion of the survey.

¹ Aspect Ecology (2008) and as reported in Salden Chase Outline Planning Application, Chapter 7: Ecology David Lock Associates 2010

² Herpetofauna Workers Manual; Gent and Gibson; 2003

³ Froglife Advice Sheet 10 - Reptile Survey; Froglife;1999

⁴ Reptiles: Guidance for Developers; English Nature; 2004

Population Assessment

- 3.6 Reptile populations were assessed in accordance with the criteria in the Key Reptile Site Register⁵. This system classifies populations of individual reptile species into three population categories as reflected in Table 1. These categories are based on the total number of animals observed during individual survey occasions.

Table 1: Assessing Population Size for reptiles

Species	Low Population (No. of individuals)	Good Population (No. of individuals)	Exceptional Population (No. of individuals)
Adder	<5	5 - 10	>10
Common lizard	<5	5 - 20	>20
Grass snake	<5	5 - 10	>10
Slow worm	<5	5 - 20	>20

4.0 RESULTS

Desktop information

- 4.1 Records were received from the local records centre are provided in Table 2.

Table 2: Reptile records within 1km

Species	Location	Date of Record	Approximate Distance and Orientation from Site
Grass snake <i>Natrix natrix</i>	Tattenhoe Park	2010	550m north
	Snelshall east wildlife corridor	2002	Within the site, along railway verge
Common Lizard <i>Zootoca vivipara</i>	Disused railway	2010	850m southwest

- 4.2 Previous reptile presence/absence surveys undertaken at the site in 2008 by Aspect Ecology recorded no reptiles within the site.

Habitat suitability

- 4.3 The majority of the site comprised intensively managed arable farmland and grassland with very limited suitable habitat for this group, however, the arable margins, hedgerows and semi-improved grassland offered potential foraging, basking, commuting and hibernation opportunities and was therefore considered to be potentially suitable for reptiles. In addition, the presence of a disused railway line adjacent to the southern boundary provided further habitat and offered some connection to the wider area, where desk study records indicate reptiles have also been recorded.

Presence/absence surveys

- 4.4 To confirm presence/likely absence a total of 63 artificial refugia were located in habitat (see Figure 2) considered most suitable for reptiles. Survey results are summarised in Table 3 below.

Table 3: Reptile Survey Results

⁵ Key Reptile Site Register; Herpetofauna Groups of Britain and Ireland, 1998

Survey	Date and Time	Weather	Common lizard	Grass snake	Slow worm	Other Species
1	24/04/2013 - AM survey	14°C, 0% cloud cover, light breeze.	0	0	0	0
2	15/05/2013 - PM survey	18°C, 60% cloud cover, no breeze.	0	0	0	0
3	23/05/2013 - AM survey	12°C, 60% cloud cover, light breeze.	1 x adult (tile ref #35)	0	0	0
4	12/06/2013 - AM survey	17°C, 50% cloud cover, no breeze	0	1 x adult (tile ref #52)	0	0
5	26/06/2013 - PM survey	18°C, 50% cloud cover, no breeze.	0	0	0	0
6	01/07/2013 . AM survey	16°C, 80% cloud cover, moderate breeze.	0	0	0	0
7	09/07/2013 . PM survey	17°C, 0% cloud cover, light breeze	0	0	0	0

4.5 Based on the above the following are the classifications of the reptile populations on site:

- Common Lizard – Low population.
- Grass Snake – Low population

5.0 DISCUSSION AND RECOMMENDATIONS

Impacts

- 5.1 Evidence that small population of both grass-snake and common lizard use the site was confirmed. The adult common lizard was recorded within the centre of the site within arable margin adjacent to hedgerow H9, with the adult grass snake recorded within the semi-improved grassland margin adjacent to H29.
- 5.2 At this stage, the area where the grass snake was recorded is sited within a proposed area of landscaping and buffer planting, where new attenuation waterbodies are to be provided. The common lizard was recorded in an area earmarked for green space /sports pitch with landscape planting.
- 5.3 It is therefore considered that effects on the small population of reptiles will be limited with the loss of only limited areas of suitable habitat. It is not considered that there will be any significant effects of fragmentation or isolation from these proposals. In the long term it is considered that the new green infrastructure will lead to positive benefits for reptiles with features such as waterbodies and the extent of suitable habitat increased. The development will therefore maintain the favourable conservation status of the local reptile population and could enhance it in the long term at a local level.
- 5.4 In the absence of appropriate mitigation there is the possibility for reptiles to be harmed during the construction process where works affect potential habitat. It is therefore advised that a precautionary approach to works is undertaken in these areas to ensure no reptiles are harmed during the process and that works in suitable habitat are undertaken according to the method statement presented below to passively displace any reptiles using these areas into unaffected areas.

Mitigation /Enhancement

- 5.5 In the absence of mitigation there is potential for an adverse impact on reptile species caused by:
- temporary loss of habitat through vegetation clearance,
 - Incidental harm during earthworks/site clearance.
- 5.6 Mitigation measures aim to ensure that grass snake and common lizard are not killed or injured during works and that their local conservation status is maintained.

Passive Displacement

- 5.7 To reduce impacts a passive displacement excise approach to destruction of habitat is recommended where grass snake and common lizard have been more frequently associated.
- 5.8 The areas potentially affected include small sections of hedgerow, areas of grassland, and adjacent field margins which will be lost to accommodate access roads/paths. Passive displacement will therefore be undertaken where these habitats occur to move any reptiles out of these areas and into adjoining habitats to be retained.
- 5.9 Prior to any operations the areas affected will be hand searched by an appropriately qualified ecologist. Any reptiles recorded during the hand search will be moved to an area within the site with suitable habitat which is currently unaffected by operations.

- 5.10 Following this, an ecologist will supervise the directionally strimming of the vegetation in two cuts, the first to 200mm and the second 1-2 hours later to 50mm. All arisings will be removed from the working area to prevent potential areas of refugia from being used by reptiles moving across the area.
- 5.11 Any potential hibernation sites such as rubble, tree roots or wood piles present within the working area shall be removed carefully by hand by the ecologists. Any individual found will be placed in areas of retained habitat as above.
- 5.12 In these areas, construction materials and products such as wood and rubble should be placed within a suitable compound prevent these from being used by reptiles during works.
- 5.13 Given the phased nature of proposals and the potential for habitats to develop and succeed in the absence of management, consideration should be given to on-going management of areas of currently unsuitable or sub-optimal nature to ensure these remain unsuitable. This level of management could be covered under a suitably worded condition.



Attenuation Waterbodies

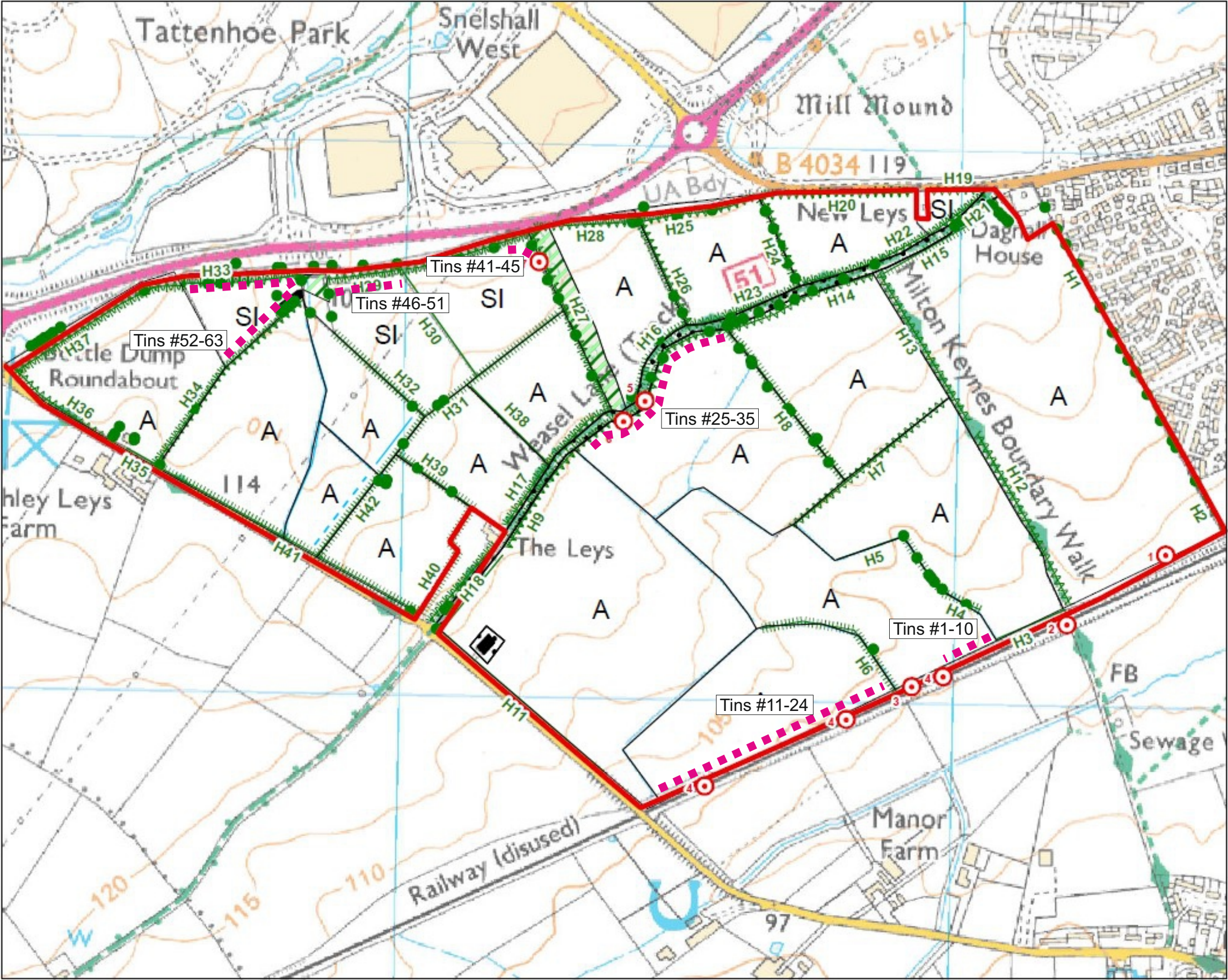
- 5.14 A number of attenuation waterbodies are proposed in the north west of the site, near the recorded grass snake population. It is recommended that these areas be designed to provide a structurally varied habitat incorporating areas of open water , marginal vegetation and taller more developed vegetation that could be used by reptiles for basking, refuge and hunting. This would not only provide a good resource for grass snake but also for their food sources and general biodiversity.

Refugia / Hibernacula

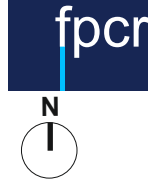
- 5.15 Enhanced terrestrial habitat will be created in the form of refugia around the attenuation basins, with the enhancement of the hedge line around the site. These features will provide suitable habitat for reptiles as well as other species such as amphibians.

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-  Refugia (tin location)
-  Refugia (tin) reference



Hallam Land Management,
Taylor Wimpey UK Ltd, William Davis,
Connelly Homes and Bellcross Homes
Salden Chase, Milton Keynes
Buckinghamshire



REPTILE SURVEY PLAN

Not to Scale @ A3 AWB / EJF 13.02.2014

Figure 1