



Mariposa Developments Ltd

**Panshanger Airfield, Hertfordshire**

**REPTILE SURVEY REPORT**

January 2016

**FPCR Environment and Design Ltd**

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## 1.0 INTRODUCTION

- 1.1 This report has been prepared by FPCR Environment and Design Ltd on behalf of Mariposa Developments Ltd and provides details of reptile surveys undertaken on Panshanger Airfield in Hertfordshire during 2014.
- 1.2 Surveys were conducted in locations throughout the study area that offered the most suitable habitat for common reptiles, i.e. structurally diverse grassland habitats with areas of bare ground and short vegetation and hedgerow boundaries.
- 1.3 The objectives of the survey were to:
- Identify the presence and distribution of reptiles on the site;
  - Evaluate the conservation importance of the site;
  - To identify areas of interest and make recommendations to minimise the potential impact of development and where feasible to consider opportunities for additional habitat creation for reptiles.

## 2.0 RELEVANT LEGISLATION

- 2.1 All native species of reptile are protected by Law. The sand lizard *Lacerta agilis* and smooth snake *Coronella austriaca* are fully protected under the WCA 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010. The common lizard *Zootoca vivipara*, slow worm *Anguis fragilis*, adder *Vipera berus* and grass snake *Natrix natrix* 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:
- 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 The aforementioned reptile species are also NERC S41 species of principal importance. Planning authorities should refuse permission where harm to the species or their habitats would result unless the need for, and benefits of, the development clearly outweigh that harm. The level of protection afforded to these animals does not require a licence to be in place prior to translocation but a strategy will normally be agreed with Natural England prior to implementation.

### 3.0 METHODOLOGY

#### Desk study

- 3.1 Herts Biological Records Centre (HBRC) and online biodiversity resources were consulted for species presence records within 2km of the site boundary.

#### Field survey

- 3.2 A further presence / absence survey was undertaken at the site in specific locations identified as offering potential habitat. The survey was based on methodology detailed in the Herpetofauna Workers Manual<sup>1</sup> and the Froglife Advice Sheet 10<sup>2</sup>. 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 bare ground/short vegetation or scrub features.
- 3.3 A total of 237 artificial refugia were located within the site in habitats considered most suitable for reptiles. See *Figure 1*.
- 3.4 All of the surveys were undertaken in suitable weather conditions within the recommended survey period 2014 by suitably experienced FPCR ecologists. Surveys were carried out between June and August 2014. On each of these occasions the number of reptiles observed within the site and associated with each artificial refuge was recorded.
- 3.5 In addition, these surveys also followed the guideline's recommendations by:
- Approaching refugia downwind and avoiding casting a shadow and with care so as to not disturb basking animals when checking; and
  - That lifting and replacing the refugia, to check for the presence of reptiles underneath in hot weather is undertaken with care, to avoid potential harm or injury to animals beneath.
- 3.6 Any alternative basking material present within the site (for example tipped and demolition materials) were also checked for the presence of reptiles.
- 3.7 Reptile populations were assessed in accordance with population level criteria as stated for the Key Reptile Site Register. This system classifies populations of individual reptile species into three population categories assessing the importance of the population *Table 1*. These categories are based on the total number of adult animals observed during individual survey occasions.

**Table 1: Key reptile site survey assessment categories (Froglife, 1999<sup>2</sup>)**

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

<sup>1</sup> Gent, T. and Gibson, S. (2003). Herpetofauna Workers Manual. JNCC, Peterborough.

<sup>2</sup> Froglife (1999). Reptile survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10. Froglife, Halesworth

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

## 4.0 RESULTS

### Desk Study

- 4.1 Baseline reptile information was obtained through consultation with the HBRC showing the presence of grass snake 1.7km north, 1.1km east and 1.3km south west of the application site; common lizard 1.14km west and 1.9km south west and slow worm 1.14km west, 1.7km north and 1.9km and 2km south west of the application site. These records are represented in *Figure 2*.

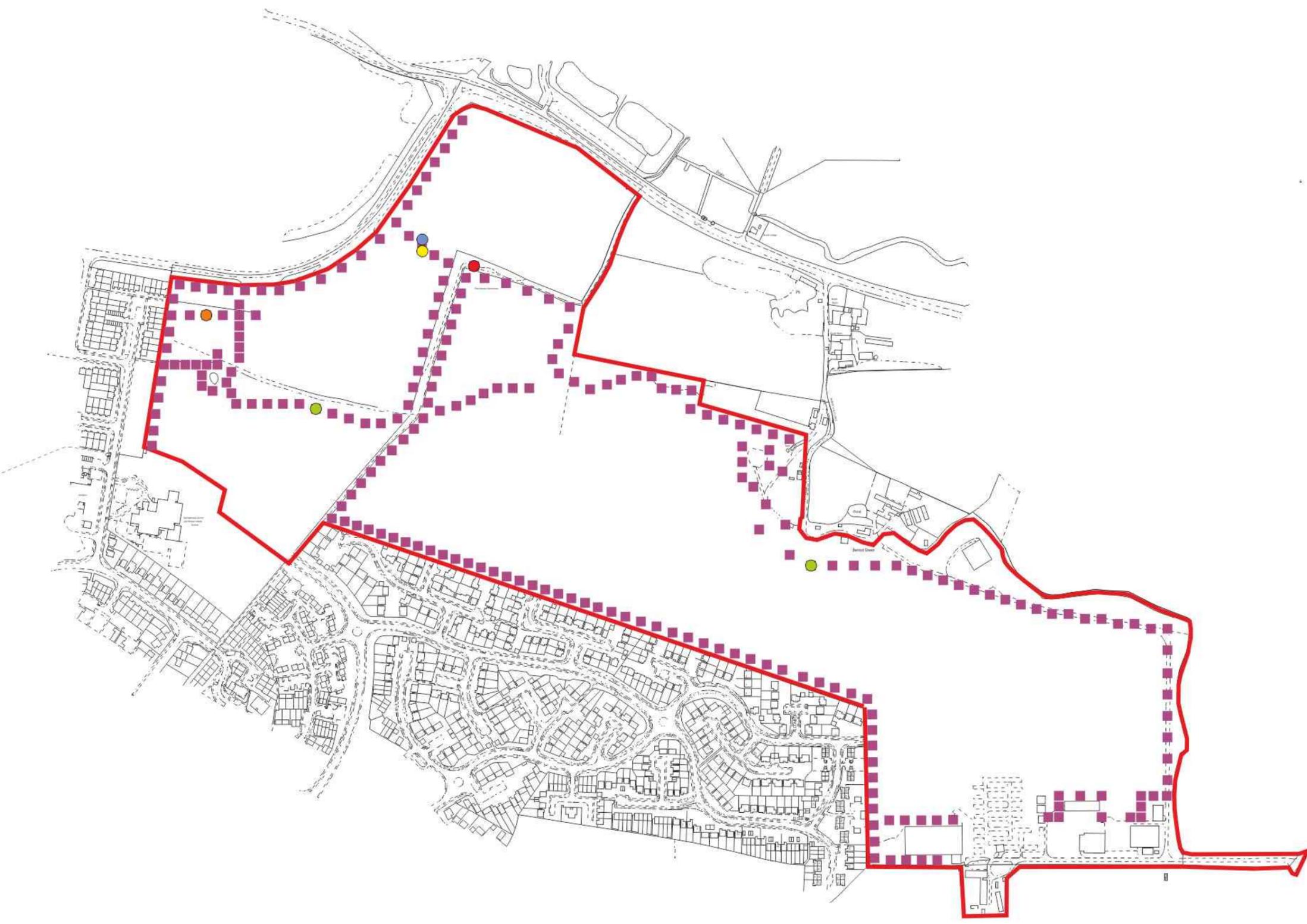
### Field Survey

- 4.2 Areas of tall grass, scrub and hedgerow boundaries, and specifically south facing areas with a dense sward of grass provided suitable habitat for reptiles within the survey area.
- 4.3 The results of the reptile surveys, dates and weather conditions are presented in *Table 2* below. These surveys have confirmed the presence of grass snake within the survey area in numbers indicative of 'good' populations, see *Figure 1*.

**Table 2: Reptile presence/absence survey results, dates and weather conditions.**

Survey Occasion	Date	Time	Surveyor	Weather	Results
1	16.06.14	08:01	BL	Overcast, 14°C	Juvenile grass snake, gender unknown.
2	26.06.14	18:55	BL	Overcast, 17°C	No sightings.
3	27.06.14	09:55	BL	Overcast, 15°C	Adult female grass snake. Adult grass snake, gender unknown.
4	08.07.14	11:14	BL	Sunny, light breeze with some cloud cover, 17°C	Juvenile grass snake, gender unknown. Adult grass snake, gender unknown.
5	09.07.14	09:52	BL	Sunny, light breeze with some cloud cover, 17°C	Juvenile grass snake, gender unknown.
6	04.08.14	10:26	BL	Overcast with intermittent sun, light breeze, 17°C	No sightings.
7	05.08.14	08:07	BL	Overcast, 16°C	No sightings.

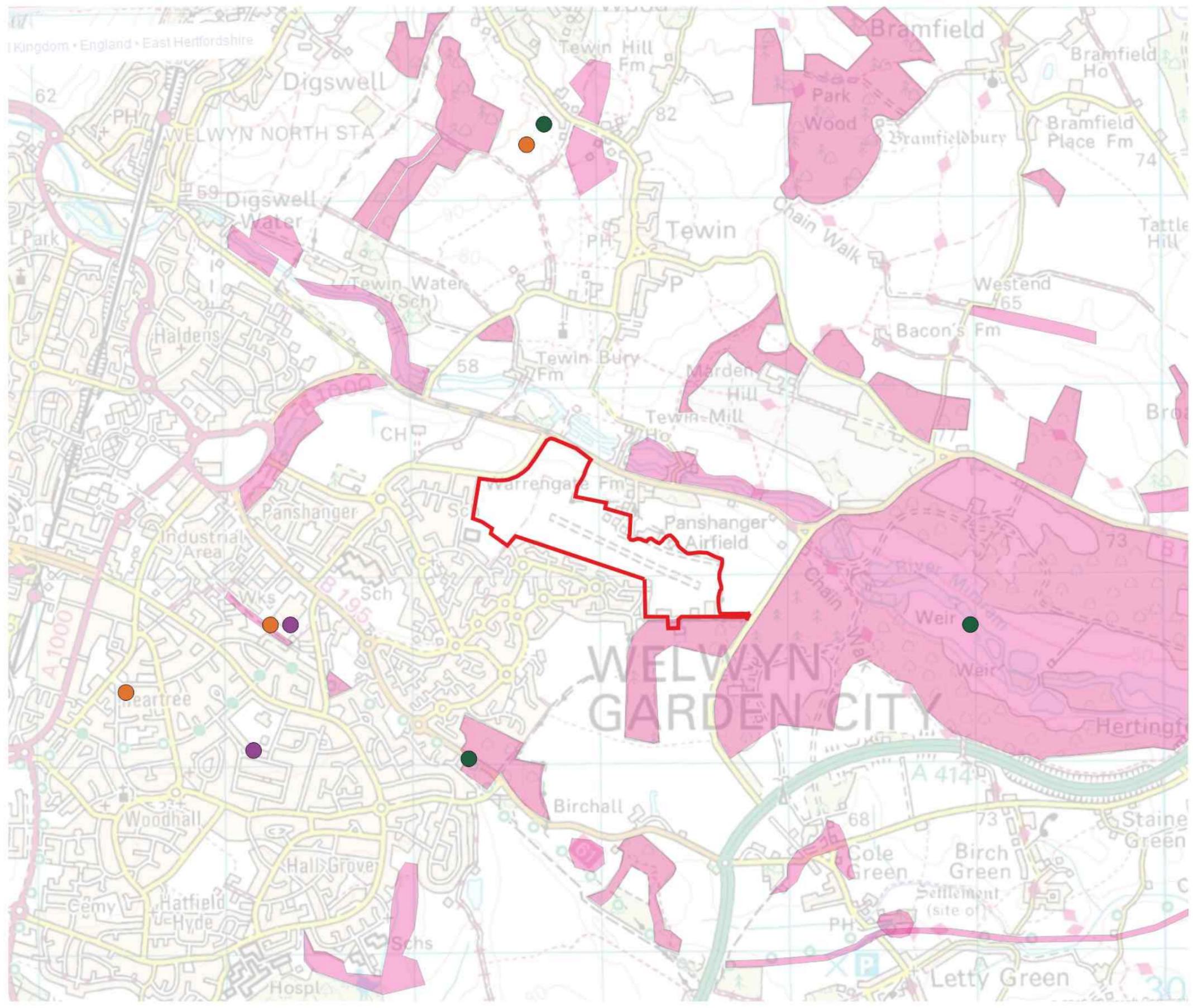
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-  Survey area boundary relative to building locations
-  Tile Locations (x237)
-  16.06.14 - Grass Snake: Juvenile
-  27.06.14 - 2 x Grass Snake: Adult Female
-  27.06.14 - Grass Snake: Adult
-  08.07.14 - Grass Snake: Juvenile
-  08.07.14 - Grass Snake: Adult
-  09.07.14 - Grass Snake: Juvenile

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 Panshanger Airfield, Hertfordshire  
 REPTILE PLAN  
 NTS @ A3      KL/DJC      26.01.2016  
**Figure 1**      5705-E-01A

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-  Boundary
- Non-statutory Sites
-  Local Wildlife Sites (LWS)
- Protected and Notable Species
-  Grass snake
-  Common lizard
-  Slow worm

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 REPTILE CONSULTATION PLAN

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**Figure 2**      5705-E-02A