



Reptile Presence/Likely Absence Survey

Land located at Oak Park, Havant, PO9 2EL
for:

Hampshire Living Space

CRM.1112.005.EC.R.002



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Land at Oak Park, Havant.

Project:	Reptile Presence/Likely Absence Survey
For:	Hampshire Living Space
Status:	FINAL
Date:	1 st June 2015
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Executive Summary

- i. Enzygo Ltd was commissioned by Hampshire Living Space to conduct a reptile presence/likely absence survey on land at Oak Park, Havant, PO9 2EL.
- ii. The survey followed standard survey guidelines, including 7 survey visits in suitable weather conditions.
- iii. The survey revealed a **good** population of slow worm on site.
- iv. As the proposed "Health and Wellbeing Centre" and surrounding land is unlikely to support a slow worm population at completion, recommendations for reptile translocation have been made at the end of this report.

1.0 Introduction

1.1 Commission

- 1.1.1. Enzygo Ltd was commissioned by Hampshire Living Space to undertake a reptile presence/likely absence survey on the recommendation of a Phase 1 Habitat and Protected Species Scoping Survey conducted by RPS in August 2012 (RPS Reference, JLS 2001) and further ecological walkover survey by Enzygo Ltd in October 2014 (Reference, CRM.1112.005.EC.R.001).

1.2 Survey Aim

- 1.2.1. The survey was conducted to demonstrate whether reptiles are present on site, and if found, to find measures to protect them during and after construction to ensure the preservation of species and clients compliance with domestic wildlife legislation.
- 1.2.2. The aims of the survey are:
- To identify the presence /absence of reptiles within land at Oak Park, Havant and to determine the species and numbers,
 - If confirmed present, to recommend further survey visits (if necessary) to establish a confident estimate of the population size of the species found,
 - To present recommendations regarding the potential impacts works may have on species present and present a mitigation plan (if appropriate).

1.3 Site Description

- 1.3.1. The site is centred of National Grid Reference SU 72014 07139, within Hampshire County Council, postal code PO9 2EL. The site is approximately 2ha in size, the sites red lined boundary is shown in **Figure 1.1** below.

Figure 1.1: Aerial photograph of the site and red-line boundary¹.



¹ Bing Maps 2015. Land at Oak Park 50o85'91.41"N, -0o97'85.06"W Available through <https://www.bing.com/maps/> [Accessed 4th June 2015]

- 1.3.2. When visited the site appears to have undergone some management, with the majority of the site cleared. Much of the vegetation cleared is left in place on site, or has been chipped and left in large piles towards the eastern edge of the site.
- 1.3.3. The previous walkover survey conducted by Enzygo Ltd described the site as comprising of scattered trees, successional scrub, improved grassland, tall ruderal vegetation, species poor hedgerows and hard standing. Previous ecological assessments by RPS concluded the site holds a “matrix of habitat features that are suitable for common reptile species”² and confirmed a slow worm (*Anguis fragilis*) presence on site.
- 1.3.4. The site is bordered on all sides by roads and a mixture of commercial and residential properties.

1.4. Proposal

- 1.4.1. It is proposed to create a new “Health and Wellbeing Campus”, consisting of integrated affordable housing and care facility directed at older people. The site will support a nursing home, affordable accommodation with extra care, shop, hairdressers, spa, kitchen, gym, cinema and refuse area. The site will also include a garden, outdoor gym, herb garden, sensory garden and car parking area.

² 3.32 and 3.33 Phase 1 Habitat and Protected Species Scoping Survey conducted by RPS in August 2012 (RPS Reference, JLS 2001).

2.0. Methodology

2.1. Data Study

- 2.1.1. A 2km data interrogation of the DEFRA Multi-Agency Geographic Information for the Countryside (**MAGIC**)³ database was conducted.
- 2.1.2. A further search of statutory reservations was made as part of RPS's 2012 survey from Hampshire Biodiversity Information Centre. A search was not commissioned as part of this report. The data search information sourced in 2012 can be found in **Section 3.1** below.

2.2. Survey Effort

- 2.2.1. In order to assess reptile presence/likely absence on site a combination of two types of artificial refugia and standard walked transects were used in accordance with the guidelines in Froglife, (1999)⁴. Artificial refugia were deployed on site to encourage any reptiles present to shelter under them to gain thermal advantage.
- 2.2.2. 20 artificial refugia were constructed using roofing felts and corrugated Onduline sheets cut to 1m x 1m in size (see **Appendix 3**). This was considered consistent with the general practice detailed in Froglife Advice Sheet (1999) of 10 refugia per ha³. The refugia were set out in "potential reptile hotspots" (Froglife, 1999) along the edges of habitats, sunny spaces close to cover and on short vegetation to trap humidity across the site to encourage basking/sheltering reptiles to use them, see **Appendix 2** for refugia positions across the site.
- 2.2.3. The refugia were set out on 31st March 2015 and left on site for 15 days to "bed down" and allow any reptiles on site to locate them. After the initial "bedding down" period seven survey visits were conducted, and checks were made by an experienced field-ecologist and assistants by manually lifting up the "tiles".
- 2.2.4. All reptiles found under the artificial refugia were recorded and sexed when possible. Whilst travelling between the refugia fixed transects were followed. Any naturally occurring areas of shelter within 2m of the centre line of the transects were checked. Any basking reptiles seen on site were also recorded.

2.3. Survey Timing

- 2.3.1. The seven survey visits were conducted between 16th April 2015 and 27th May 2015. Depending on when temperatures were optimum, the survey checks were conducted between 8:00am to 10:00am and 4:00pm and 6:00pm.

³ DEFRA Multi-Agency Geographic Information for the Countryside, available at www.natureonthemap.naturalengland.org.uk.

⁴ Froglife (1999) Reptile Survey: An Introduction to Planning, Conducting and Interpreting Surveys for Snake and Lizard Conservation. Froglife Advice Sheet 10. Froglife, Halesworth.

2.4. Weather Conditions

- 2.4.1. Surveys were conducted in optimal weather conditions. Froglife (1999) advise optimal temperatures should range between 9°C and 18°C. The weather should be dry, warm and mild. On cooler days, bright sun shine should yield the best results, whilst on warmer days, hazy or intermittent sun spells are more suitable.
- 2.4.2. Weather patterns should also be monitored, a hot day after a prolonged cold spell and a showery day after prolonged hot/dry weather will increase reptile activity.
- 2.4.3. All weather conditions, temperatures, cloud cover and wind was recorded at the beginning of the surveys and can be found in **Appendix 4**.

2.5. Surveyors

- 2.5.1. The survey was conducted by Kirsty Rogers (MZoo, Grad CIEEM) who has 2 years experience of conducting reptile surveys, and was assisted by Greg Parr and Bethany Kingston field assistants.
- 2.5.2. Surveying for reptiles is not a licensable activity.

2.6. Limitations

- 2.6.1. The survey was not considered to be limited in any way. The visits were conducted under optimal weather conditions and free access to the entire site was permitted throughout. Two of the refugia were moved/lost and/or destroyed during the survey effort, however it has been assessed this is not likely to have impacted the survey results.

3.0 Results

3.1 Data Search Results

3.1.1. A 2km interrogation of the DEFRA MAGIC database revealed the one statutory nature designation, Chichester and Langston Harbours are a RAMSAR site located approximately 1.8km from the site boundary.

3.1.2. A further search of statutory nature reservations was made as part of RPS's 2012 survey from Hampshire Biodiversity Information Centre.

"There are four statutory designated sites for nature conservation within the 2km search boundary, two Sites of Special Scientific Interest (SSSI), one Special Area of Conservation (SAC) and one Special Protection Area (SPA), the closest of which is approximately 1.8km from the site boundary".

3.1.3. A 2km data search was commissioned from Hampshire Biodiversity Information Centre, by RPS in 2012 to include existing biological records in the area. The full report is not suitable for entering on a public register and was not provided as part of the 2012 survey report. However the following de-sensitised summary of the findings for reptiles are as follows.

"Reptiles: Two species of reptile were recorded within the last 10 years, these were slow worm (Anguis fragilis) and adder (Vipera berus)".

3.2 Survey Results

3.2.1. Slow worms were seen on site during every survey visit conducted under good survey conditions, a summary of the survey results can be found in **Table 3.1** below, the full survey results can be found in **Appendix 4**.

Table 3.1: Summary of Survey Results

Date	Species Recorded	Peak Count	Notes
16/04/2015	Slow worm	8	1 refugia lost/destroyed
20/04/2015	Slow worm	7	
21/04/2015	Slow worm	1	
22/04/2015	Slow worm	13	
22/05/2015	Slow worm	7	
26/05/2015	Slow worm	8	1 dead juvenile
27/05/2015	Slow worm	10	2 refugia lost/destroyed

3.2.2. There were 54 slow worm seen on the site during the survey effort, the peak count was taken on the 22nd April at 13 individuals.

3.2.3. The density of juveniles on site is indicative of a breeding population.

3.2.4. There were no other reptiles seen on site at any point during the setting up or survey sessions, and no mammals seen under any of the refugia during the survey or on site at any time.

4.0. Conclusions

4.1. Survey Conclusions

- 4.1.1. The survey was conducted under good survey conditions, with free access to the entire site during each visit. One roofing felt was disturbed and lost before the first survey could commence, however this is not assessed to have negatively impacted the survey visit.
- 4.1.2. There were 54 animals seen on site during the survey period 24% of these were juvenile which indicate a breeding population present on site.
- 4.1.3. The reptile population on site was assessed by the Population Level Criteria, as stated in the Key Reptile Site Register (HGBI, 1998)⁵, see **Table 4.1** below. This system aims to classify the populations into three categories effectively assessing the importance of the populations using the peak number of reptiles observed during one survey visit.

Table 4.1: Key Population Level Criteria.

Species	Low Population	Good Population	Exceptional Population
Grass snake	<5	5-10	>10
Adder	<5	5-10	>10
Common lizard	<5	5-20	>20
Slow worm	<5	5-20	>20
<i>"The figures refer to the maximum number of adults seen by observation or under tins (placed at a density of up to 10 per hectare), by one person in one day".</i>			

- 4.1.4. The peak number of slow worm seen on site was 13, in accordance with the Population Level Criteria the site supports a **good** population of slow worm.
- 4.1.5. The data search revealed records for slow worm and adder within the 2km search area, whilst the site boasts a good population of slow worm, no live adders or secondary evidence of adders were seen on site during the set up visit or seven survey visits.
- 4.1.6. The absence of adders during the survey visits, conducted according to Froglife (1999) guidelines, can confidently be interpreted as a likely absence of this species on site.

⁵ HGBI (1998) Evaluating local mitigation/translocation programmes: Maintaining Best Practices and lawful standards. HGBI advisory notes for Amphibian and Reptile Groups (ARGs). Herpetofauna Groups of Britain and Ireland, c/o Froglife, Halesworth.

5.0. Recommendations

5.1. Recommendations

- 5.1.1 Common reptile species are afforded limited protection under statutory law (see **Appendix 1**) and should be protected from death or injury during construction. They are not a European Protected Species so it is recommended that planning conditions are used to ensure their protection at this site.
- 5.1.2 Slow worm numbers appear to be higher to the north of the site, however in some numbers they were recorded over much of the site, see **Appendix 5**. Adult males, females and juveniles were all recorded across the site indicating a breeding population is likely established on site.
- 5.1.3 It is assessed that the post development condition of this site will not be suitable to maintain a breeding population of slow worm as the site will comprise of buildings, car parking areas and limited areas of garden and landscape planting. Therefore it is recommended that the slow worm population are trapped on-site and translocated off-site to a pre-approved and prepared receptor area. It is recommended that a planning condition is utilised to ensure this process takes place and that this calls for the submission and approval of a reptile translocation plan.
- 5.1.4 Typical procedure would be to isolate the site and/or construction area with herptile fencing to remove reptiles from it during the period of April to October for a period of 30-60 days (prior to construction activity). Removal would involve collecting individuals from under artificial refugia and transferring them to a receptor site. The receptor site would have to be identified, contain suitable habitat capable of supporting the population, and ideally not contain an existing reptile population.

Appendix 1 – Legislative Context

There are six native reptile species in the UK. Four of these are relatively more common – the common lizard (*Zootoca vivipara*), slow-worm (*Anguis fragilis*), adder (*Vipera berus*) and grass snake (*Natrix natrix*). These species enjoy limited protection under the Wildlife and Countryside Act 1981 by virtue of subsections 9(1) and 9(5) and as such are protected against killing, injury and trading.

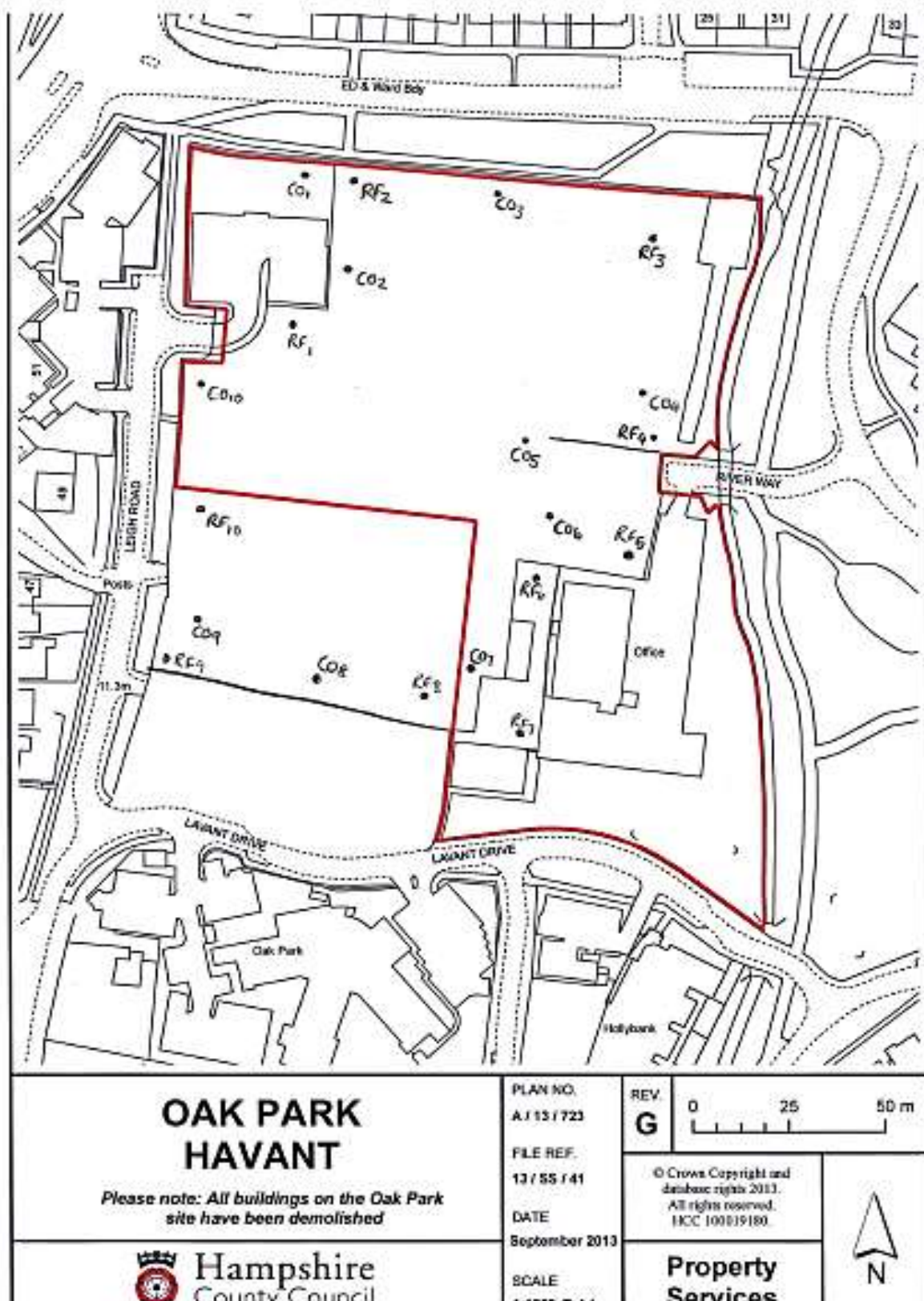
The two rarer native reptiles in the UK are the sand lizard (*Lacerta agilis*) and the smooth snake (*Coronella austriaca*). These species are European Protected Species enjoying further protection under the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended) which provides additional protection for the smooth snake and sand lizard by making it against the law to:

- i. Deliberately or intentionally kill, capture or injure sand lizards and smooth snakes;
- ii. Deliberately or intentionally or recklessly disturb sand lizards and smooth snakes;
- iii. Deliberately or intentionally or recklessly damage, destroy or obstruct a breeding site, resting place or other place used for shelter and protection;
- iv. Take or destroy eggs;
- v. Keep, sell or exchange sand lizards or smooth snakes (or their eggs).

In England, Scotland and Wales, slow-worm, common lizard, adder and grass snake are also protected against killing, injury and sale, barter or exchange, but their habitats or places of shelter are not specifically protected.

The sand lizard is protected by the UK Biodiversity Action Plan and the smooth snake is included in English Nature's species recovery programme. Local Biodiversity Action Plans may include any or all of the 6 reptile species.

Appendix 2-Refugia Lay-out



Appendix 3— Refugia Photographs



Photograph 1- Artificial refugia using roofing felt (RF), weighed down with stone.



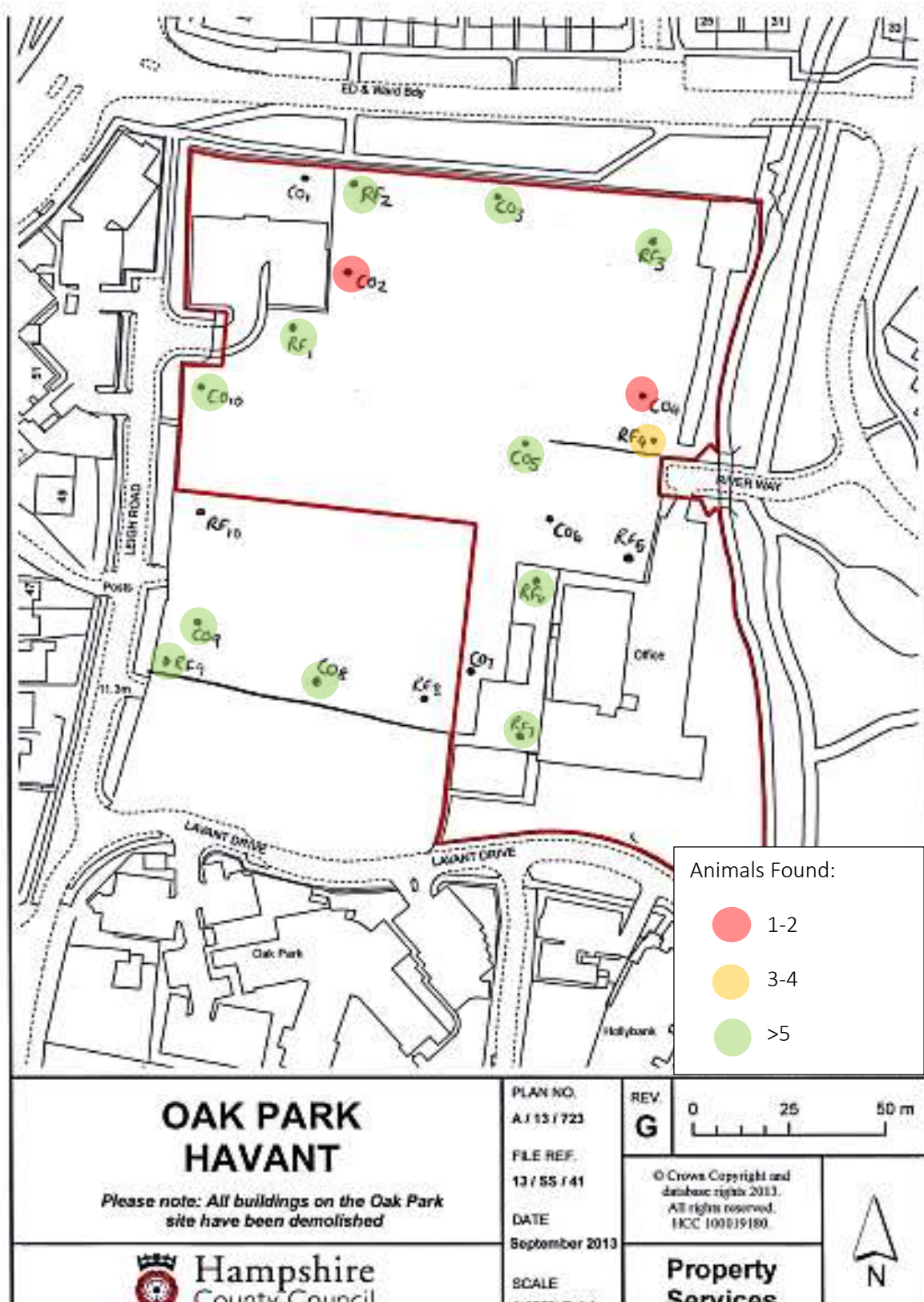
Photograph 2- Artificial refugia using corrugated onduline (CO) weighed down with stone.



Appendix 4 – Survey Results

Date	Temperature	Cloud Cover	Weather	Species Recorded	Sex			Peak Count	Refugia Number	Notes
					Male	Female	Juvenile			
16/04/2015	16 °C	0/8	Sunny-no wind	Slow worm	4	2	2	8	CO2, CO4, RF2	RF9 lost/destroyed.
20/04/2015	16 °C	3/8	Some high cloud-no wind	Slow worm	3	1	3	7	CO2, CO4, RF1	RF9 lost/destroyed.
21/04/2015	17 °C	0/8	Sunny-no wind	Slow worm			1	1	CO4	RF9 lost/destroyed.
22/04/2015	11 °C	0/8	Sunny- light breeze	Slow worm	8	1	4	13	CO2, CO4, RF1, RF3, RF9	RF9 lost/destroyed.
22/05/2015	18 °C	4/8	Sunny spells- light breeze	Slow worm	3	4		7	CO2, CO5, CO9, RF2, RF4, RF7	RF9 lost/destroyed.
26/05/2015	16 °C	1/8	Sunny- light breeze	Slow worm	2	4	2	8	CO2, CO3, CO4, RF4, RF6	CO1 lost/moved, RF9 lost/destroyed.
27/05/2015	17 °C	1/8	Sunny- no wind	Slow worm	2	7	1	10	CO2, CO3, CO4, CO8, CO10, RF4, RF6	1 dead juvenile, CO1 lost/moved, RF9 lost/destroyed.
CO- Corrugated Onduline RF- Roofing Felt										

Appendix 5 – Survey Results





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