



Reptile Survey Report

of

Coventry Stadium
Rugby Road
Coventry
CV8 3GJ

For

Brandon Estates Ltd

(Revision A 13th October 2017)

2014-03(08)

Contents

Summary

- 1 Introduction**
- 2 Legislation**
- 3 Site**
- 4 Desktop study**
- 5 Survey methodology**
- 6 Results**
- 7 Conclusion**
- 8 Recommendations and enhancements**
- 9 References**

Report Author: Casey Griffin BSc GradCIEEM

Report Date: 05/12/14

Quality checked by: Anna Swift, BSc MSc, MCIEEM

Quality check date: 05/12/14

Revision Date: 12/10/17

1 Introduction

Instruction

ECOLLOCATION were instructed by Framptons Planning Ltd. on behalf of Brandon Estates Ltd to undertake a reptile survey of Brandon Stadium in the settlement of Brandon near Coventry, Warwickshire in order to support a planning application for the erection of residential dwellings.

The Illustrative Master Plan 9401 Rev C was available to ECOLLOCATION and was used in support of proposed mitigation suggested.

Survey aims

The aims of the survey were to:

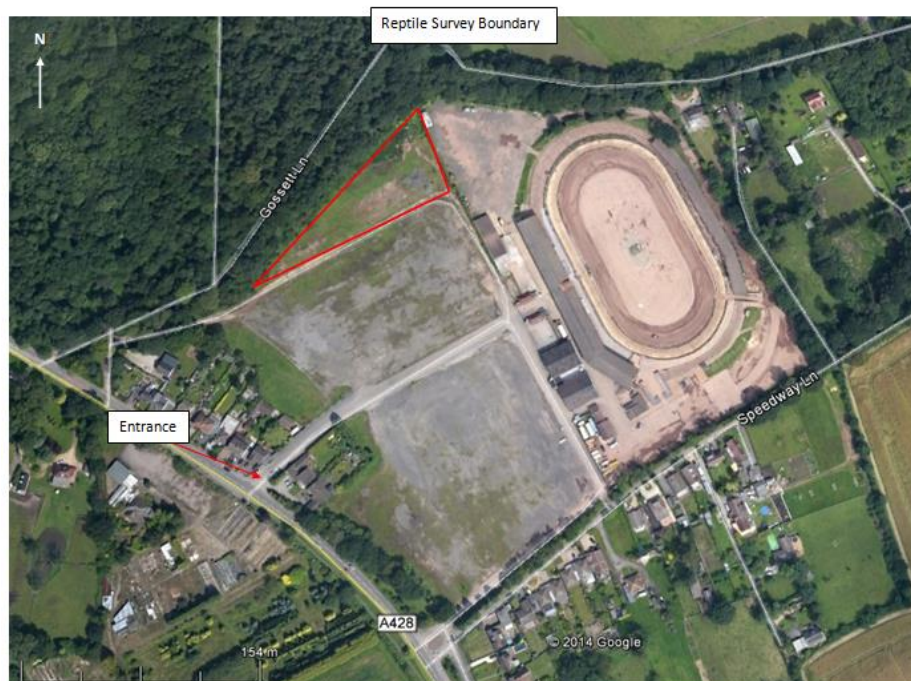
- evaluate the habitats present on site and their potential to support reptiles
- conduct detailed reptile surveys to determine presence/absence
- if reptiles are recorded on site, employ sufficient survey effort to establish population size
- assess the ecological impact of the proposals in relation to reptiles
- identify any constraints/opportunities on site in relation to reptiles
- provide a detailed mitigation plan, where appropriate

2 Legislation

The Wildlife and Countryside Act 1981, as amended, makes it an offence to intentionally kill or injure any of our native snakes and lizards (grass snake (*Natrix natrix*), adder (*Vipera berus*), smooth snake (*Coronella austriaca*), common lizard (*Zootoca vivipara*), sand lizard (*Lacerta agilis*) and slow worm (*Anguis fragilis*). The sand lizard and smooth snake receive additional protection; for these species, it is unlawful to capture or possess them or to damage/obstruct access to places they use for shelter or protection, or to disturb them whilst in such a place.

3 Site

The site (grid ref: SP 40713 77299), indicated by the red line boundary below, was situated some 4.5km to the east of the city of Coventry in the West Midlands. It was set in an agricultural landscape with urban and residential areas in close proximity.

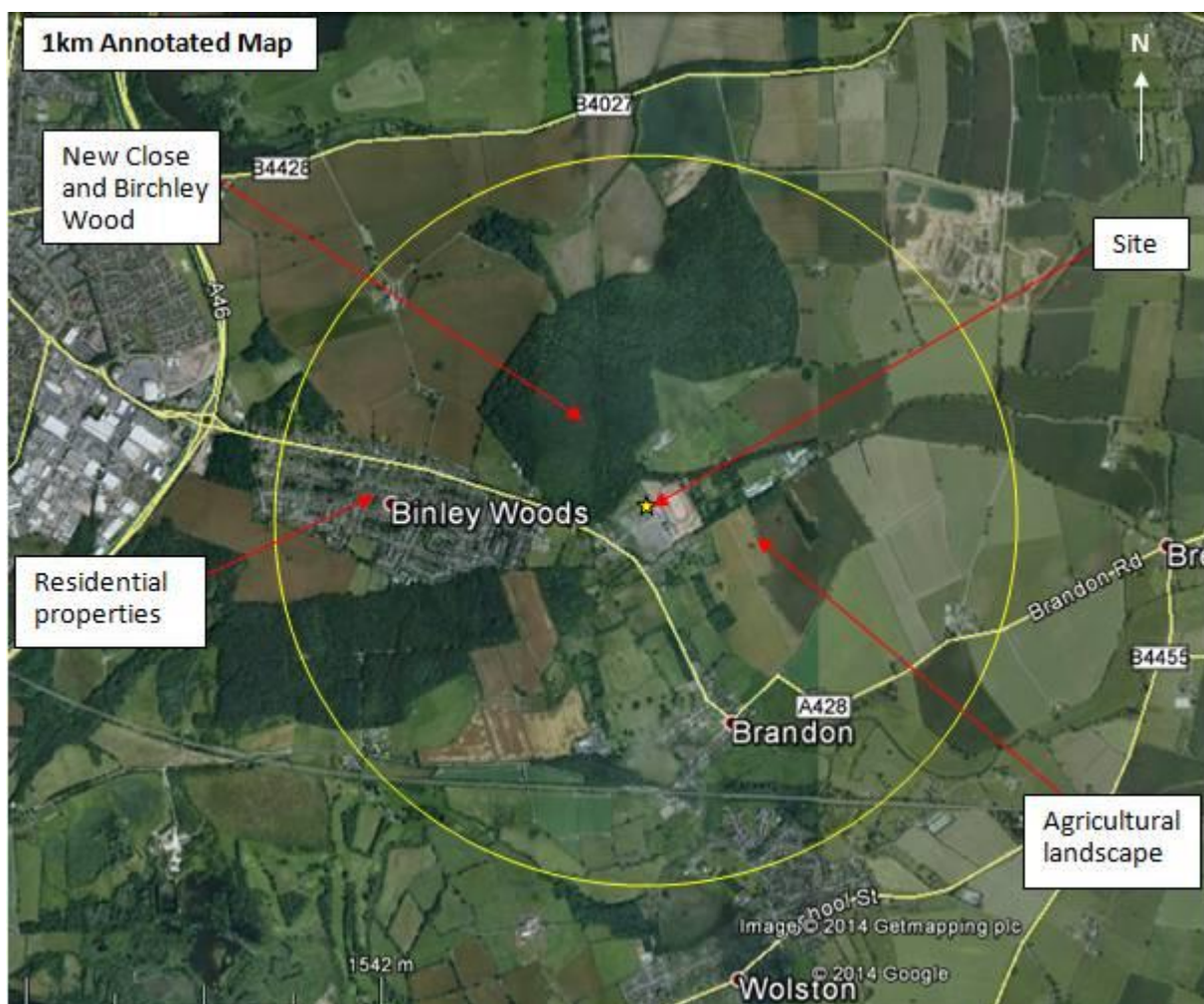


4 Desktop study

Prior to the ecological survey of the site, a desk-top data gathering exercise was undertaken. The Nature On The Map website was accessed and the Warwickshire Biological Records Centre were contacted for information on statutory and non-statutory sites and protected/notable species records within a 1km radius.

Habitat connectivity and barriers

- Overall the connectivity of this site was considered average with a rural landscape of agricultural land and woodland to the north, south and west and residential properties of the suburb of Binley Woods to the east.
- Adjacent the site to the west was the A428 trunk road, which may have created a barrier to the free movement of species from this direction.
- Adjacent the site to the north, beyond Gossett Lane, stretched New Close and Birchley Wood; both designated Local Wildlife Sites for their ancient woodland habitat. The habitats created by such woodlands may have provided good shelter and forage habitat for reptiles and their prey species.
- The increased human influences, such as noise and light pollution, created by the site's current use and its close proximity to residential properties and the A428 to the west may have deterred regular use of the site by reptiles.



5 Survey methodology

A presence/absence survey of the site for reptiles was undertaken by suitably experienced Ecologists Anna Swift and Casey Griffin in accordance with Froglife Advice Sheet 10 - Reptile Survey.

All visits were undertaken during suitable weather conditions (9-18°C), at an appropriate time of year when reptiles are active (March-October) and included the use of two survey techniques during each visit.

The first technique used was direct observation and the second technique was the use of artificial refuges. The recommended density of refugia for presence/absence surveying is 5-10/ha and 33 refugia measuring 0.5m x 0.5m were distributed through the site. The artificial refugia were placed in sunny locations close to cover. Two different types of refugia were used as different materials appear to have differing success at attracting grass snakes and/or slow worms (*pers. obs*). A combination of bituminous felt and onduline black profiled sheets were used as artificial refugia at the approximate locations illustrated on the following insert.



6 Results

One juvenile grass snake was recorded on the 27th August 2014 by suitably experienced ecologist Anna Swift. This individual was located under a bituminous felt refugia to the southwest corner of the spoil heaps located within the bounds of the larger Brandon Stadium site.



Other species recorded included a single common toad (*Bufo bufo*). This individual was noted beneath a bituminous felt refugia to the east of the spoil heaps adjacent the allocated parking area within the larger Brandon Stadium site.

VISIT No	DATE	TIME OF VISIT	WEATHER				Grass Snake		Other	Refugia No.
			Temp	Wind Speed	Precipitation	Cloud Cover	Adult	Juvenile		
1	20/08/14	09:22	12.6°C	1- Light Air	None	11-25%	0	0	1 x common toad	-
2	21/08/14	09:29	14.2°C	2- Light Breeze	None	26-50%	0	0	-	-
3	26/08/14	13:53	17.1°C	4 – Moderate Breeze	None	51-75 %	0	0	-	-
4	27/08/14	09:36	14.4°C	1 – Light Air	None	11-25%	0	1	-	Southwest spoil heap
5	28/08/14	09:07	15.5°C	0 - Calm	None	26-50%	0	0	-	-
6	29/08/14	12:38	18.4°C	1- Light Air	None	51-75%	0	0	-	-
7	02/09/14	09:35	15.7°C	1 – Light Air	None	11 - 25%	0	0	-	-

Limitations

Following the discovery of a juvenile grass snake on the forth survey visit it was recommended the initial seven reptile survey visits be extended to ten visits. This practice follows appropriate survey methodology and provides for an opportunity to complete an appropriate population size assessment.

On this occasion, it was not possible to complete the full 10 survey visits as outlined within the standard survey methodology as the site was cleared of the targeted spoil heaps and vegetation prior to the commencement of the eighth survey visit.

7 Conclusion

A single juvenile grass snake was recorded within the site on the fourth survey visit. The presence of this individual is likely to suggest a breeding population of grass snake nearby if not within the larger site. An accurate estimation of population size was undetermined by this survey as the necessary ten survey visits were not completed.

Notably the presence of a common toad may have suggested the presence of a suitable grass snake food source and therefore substantiating the possible presence of a viable grass snake population. It is with this in mind that suitable precautionary measures, recommendations and mitigation have been suggested below in order to reduce the risk of direct mortality or disturbance as a result of the proposed works and to maintain the favourable conservation status of this species at the site post-development.

8 Recommendations

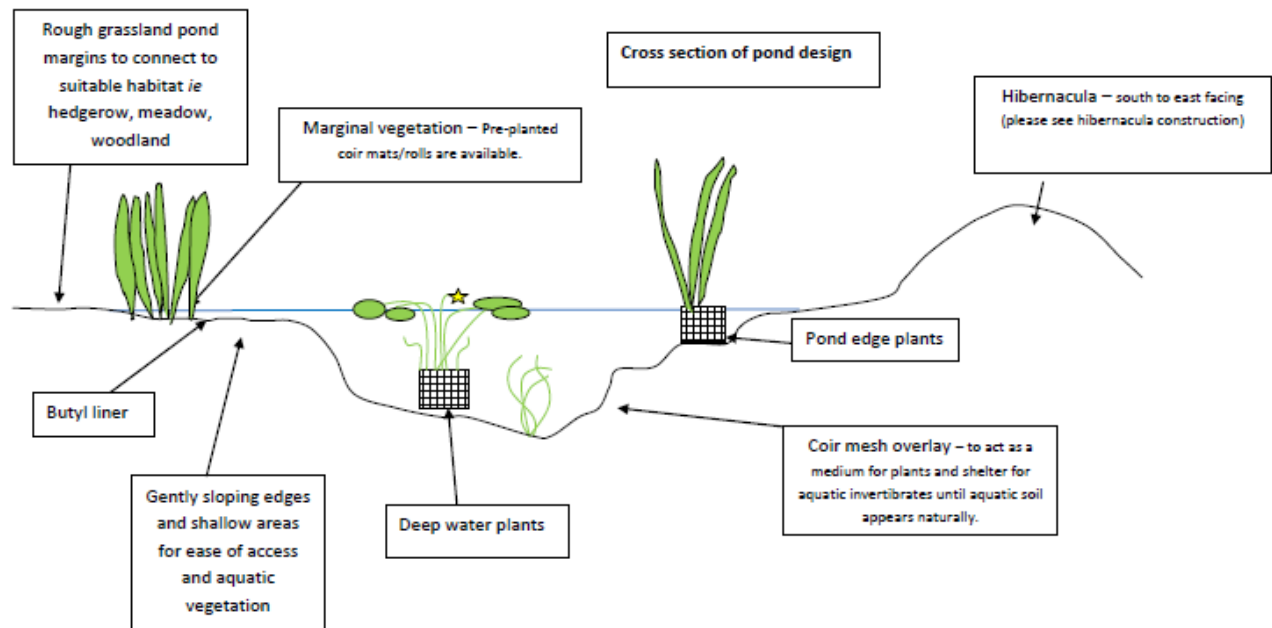
Avoidance, mitigation and legal obligation

In order to develop the site, *ECOLOGATION* recommend the developer follow the advice set out in this "Avoidance, mitigation and legal obligations" section, to avoid harm or impact to legally protected and notable species and habitats on site, as outlined within The National Planning Policy Framework:

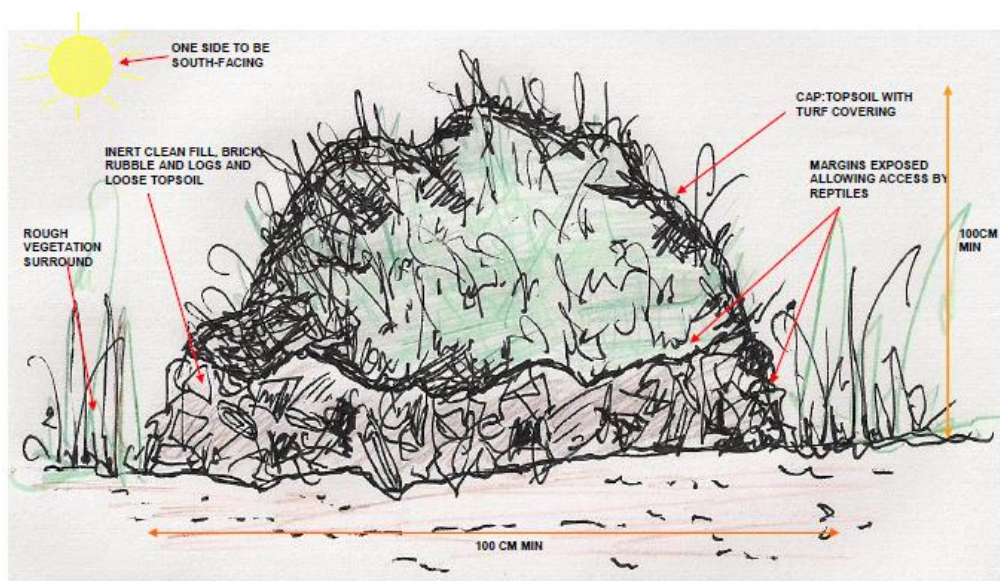
The National Planning Policy Framework paragraph 117 states that "To minimise impacts on biodiversity and geodiversity, planning policies should...promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations". In order to ensure no net loss of biodiversity in accordance with NPPF & Circular 06/2005 recommendations are made below:

- **All areas of tall grass and ruderal vegetation should be strimmed to (and maintained at) a height of no less than 5cm in the March-October season immediately preceding development as** this should deter reptiles from entering the site. This vegetation length should then be maintained for the entirety of the construction phase.
- All builders' compounds to be located at least **5m from vegetation (including hedgerows) and all storage must be on pallets to avoid the possibility of reptiles using these areas for shelter.** The grassland should not receive any stored materials and this surface must remain short mown.
- Any deep excavations, which will be left open overnight, will need to have sloping wooden boards placed in them to provide exit ramps for reptiles and any other animals to escape.

- Should any protected species, such as grass snakes be discovered before or during the works, **ECOLOLOCATION** or the local office of Natural England should be contacted for advice.
- Two permanent waterbodies/**SUDS (one permanently wet the other occasionally dry)** to be created on site. The permanently wet waterbody should aim to provide some biodiversity gain and designed with biodiversity in mind. These waterbodies should be planted with native aquatic and marginal plants and excavated in such a way as to allow ease of access by faunal species such as small mammals, amphibians, reptiles and invertebrates. In addition to this, the provision of such waterbodies within the site may encourage a sustainable grass snake food source of common amphibians. Details of a cross-section of a pond designed for biodiversity can be found below. For further location detail please see the Reptile Mitigation insert overleaf.

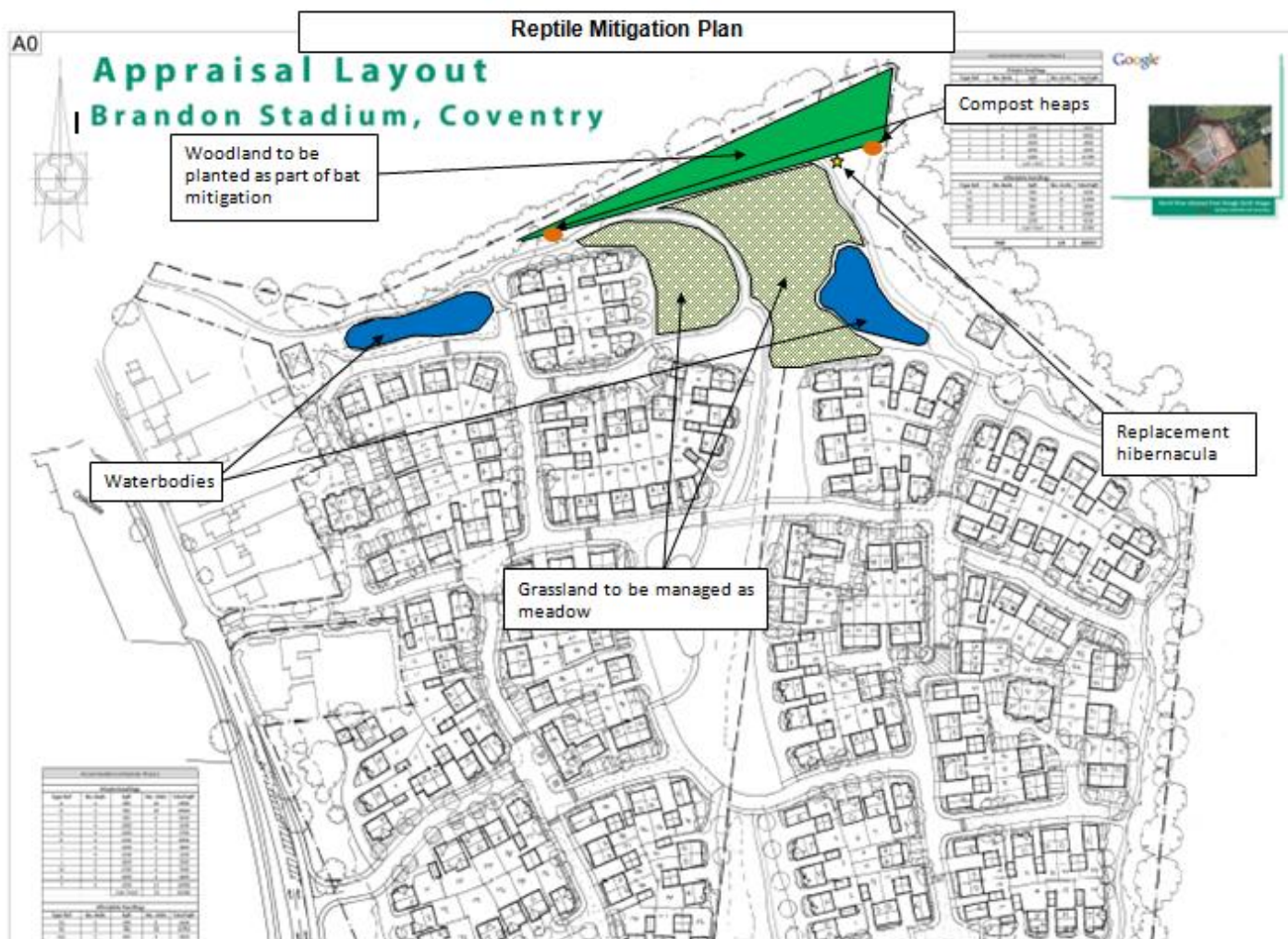


- **An area of permanent grassland should be created adjacent the larger of these ponds.** This grassland should be seeded with a native wildflower mix and managed as meadow, being cut biannually in order to ensure suitable reptile habitat is maintained within the site. The northern boundary of this grassland should be cut less frequently encouraging some scrub encroachment. The cuttings taken from this grassland should be used to create compost heaps along the northern boundary adjacent the neighbouring woodland. This would aim to encourage reptile to bask and breed within the site ensuring no nett loss of suitable habitat. Please see the Reptile Mitigation insert overleaf for details.
- **In order to replicate the loss of potential basking and or hibernating habitat, which had been cleared, a replacement hibernacula should be created in order to ensure no net loss of valued reptile habitat.** This should be located on the northern outskirts of the site and near to other suitable reptile habitat created. Please see the cross section of a hibernacula and Reptile Mitigation inserts overleaf:



CROSS SECTION OF HIBERNACULA DESIGN

This design is suitable for locating on a permeable substrate and needs excavation; on impermeable substrates no excavation is required other than to remove vegetation.



9 References

Froglife Advice Sheet 10 - Reptile Survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation (1999) Froglife.
NBN Gateway <http://www.nbn.org.uk/>
Warwickshire Biological Record Centre
UK BAP www.ukbap.org.uk
Circular 06/2005: Biodiversity & geological conservation: Statutory obligations & their impacts within the planning system.
Wildlife & Countryside Act (1981) HMSO
Google Earth Pro
www.magic.gov.uk
The Conservation of Habitats and Species Regulations, HMSO (2010, as amended)