



ecological support, management &
solutions



Ranelagh Road Havant

**Reptile Capture & Proposed Management of
Meyrick Road POS**

June/ July 2014



Report Prepared by
Adam Jessop (MSc) (BSc)

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1.0 INTRODUCTION

This document outlines the results of the reptile translocation carried out at land at Ranelagh Road, Havant, PO9 1 NR with recommendations for future management of the receptor site at Meyrick Road.

1.1 Background

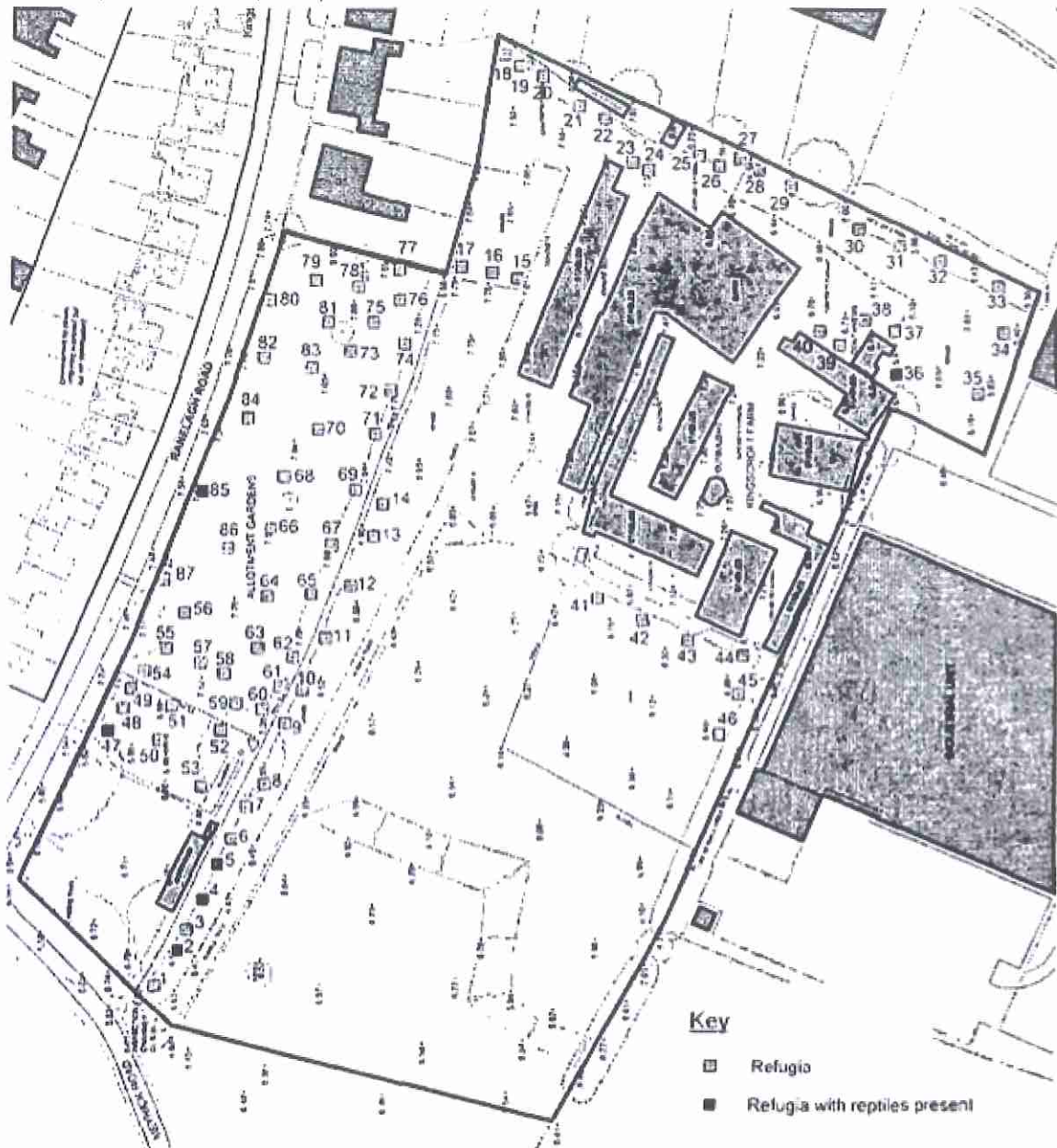
The proposed development entails the demolition of the existing buildings (stables) and subsequent construction of a new residential development including landscaping and access roads. As part of the planning application process a full ecological assessment of the site was carried out by Hampshire Ecological Services Ltd with subsequent phase II work carried out to establish the presence/likely absence of reptiles. The surveys, conducted during September 2010 and 2011, identified a low Slow Worm (*Anguis fragilis*) (HGBI, 1998) population using the edges of the farm and the former allotments. As reptiles are protected under the Wildlife and Countryside Act (1981) a brief mitigation strategy was produced by HES (July 2012).

1.2 PREVIOUS SURVEY RESULTS

1.2.1 *The Status of Reptiles on Site*

In September 2010 and 2011, Hampshire Ecological Services carried out a full reptile survey of the site following the best practice survey guidance (Froglife 1999). This involved the distribution of 46 bitumen felt tiles placed within and around the former stables (2010) and a further 42 bitumen felt tiles distributed around the former allotment (2011). The results of these surveys and the distribution of refugia across the site are presented in **Fig 1**.

Figure1. Distribution of reptile refugia across the site. Black indicates presence whilst white indicates absence (taken from HES, 2012).



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1.2.3 Valuation

This population of Slow Worms is considered small according to best practise guidelines (HGBI, 1998). The site is therefore classified to be of *Local Value for Reptiles*. The species recorded on the site were relatively common within Hampshire as a whole and the survey results did not indicate that the site was a 'Key Reptile Site' as defined by appropriate guidance.

1.2.4 Impact Assessment in the Absence of Mitigation

Development of the site will entail the clearance of vegetation and topsoil stripping from the site, which would result in damage to and physical loss of habitats present on the site. Should clearance

take place whilst reptiles are present, death or injury to these individuals could occur causing an offence under the Wildlife and Countryside Act (1981). If significant numbers are killed, it may have a negative impact on the viability of populations within the local area. Construction of the new buildings, gardens and associated landscaping and infrastructure would ensure that the habitats lost during site preparation would be permanent.

Given the above, the development was likely to result in the potential killing and injuring of individual Slow Worms. In combination, these impacts would result in the loss or partial loss of the population within the local area and subsequently a decrease in the conservation status of reptiles.

2.0 WORKS CARRIED OUT: METHODS OF CAPTURE & EXCLUSION

2.1 Timing

All work has taken place between June and July of this year (2014). This timing has avoided the hibernation period when reptiles are particularly vulnerable to disturbance. The optimum period for capture of reptiles is April to June and September, however it is possible to capture reptiles outside of this period providing weather conditions are suitable. By ensuring that all reptiles were translocated by the end of September, it has allowed them sufficient time to find suitable hibernation sites in the new dedicated area.

2.2 Pre-translocation

The HES *Reptile Survey & Mitigation Strategy* (2012) recommended that the reptiles are captured and transferred to Meyrick Road (immediately to the north of the site **Fig 2**) with an approximate area of 5335 m² (however not all of this will be used for the reptiles see section 4.2). As this area was previously used as a horse paddock, the north eastern corner was used to accommodate the reptiles (adjacent to the sub station) as this supported the most structured grassland prior to management works (**Fig 3**).

Figure 2. The Meyrick road receptor site just to the north of the development area.

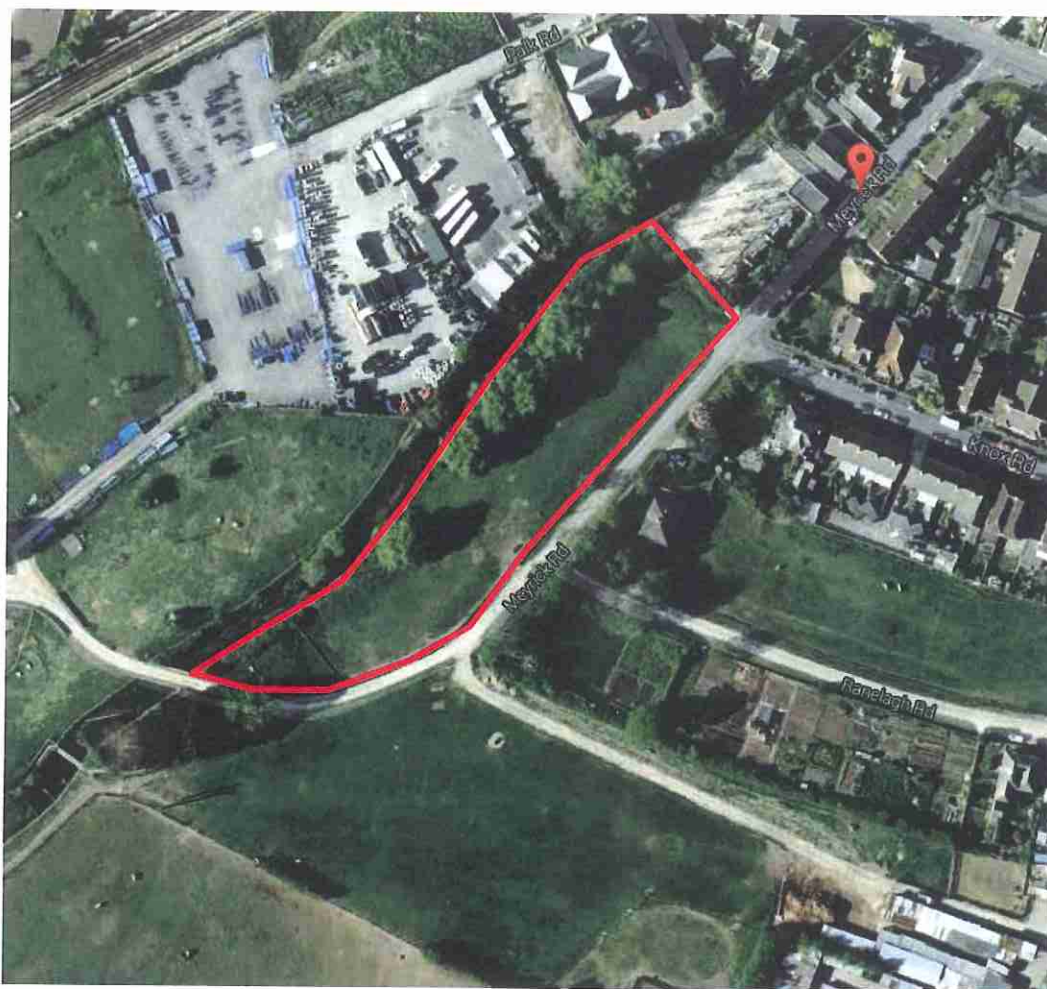


Figure 3. Area adjacent to sub station where captured Slow Worms have been placed at Meyrick Road receptor.



Prior to the translocation operation, areas of the development site were fenced off with polythene exclusion fencing of a standard design and specification and the areas of grass within the farm and allotment strimmed to facilitate the distribution of capture felts. Strimming was carried out in phases over the course of a week down to a length of 15 cm. Once cut approximately 150 felts were distributed throughout all areas of suitable habitat on site. Owing to the length of time between surveys and captures, no particular area was focussed upon (i.e. where reptiles were identified previously) however as the capture operation progressed, identified 'hotspots' were subject to an increased density of refugia.

The grass was maintained at a height of 15 – 20 cm through updated strimming works throughout the duration of the capture operation to increase the reptiles reliance on sheltering under the refugia and thus the likelihood of them being captured.

2.3 Trapping

Suitably qualified ecologists from Ecosupport Ltd carried out the trapping of reptiles during the active reptile season on days where reptiles were likely to be found (i.e. between 10°C and 20°C with little or no wind or rain).

Reptiles were captured by hand from beneath the artificial refugia and placed into a suitable container for transportation to the receptor site where they were released immediately after the capture visit was complete.

The HGBI guidelines (1998) recommend that for 'low to moderate' populations of Slow Worms, a minimum of 60-70 days of capture visits is required during suitable weather conditions. By using an elevated density of refugia it was possible to complete the capture operation in a shorter period. Other techniques were also implemented to discourage reptiles from the area, such as strimming thus adding confidence that as many reptiles as possible have been removed from site.

3.0 RESULTS

M = Male Adult FS = Female Sub Adult F = Female Adult			MS = Male Sub Adult J = Juvenile			
Date	Time	Temp / Weather	Reptiles	Reptiles	Reptiles	Reptiles
02/06/14	n/a	17°C, overcast, mild	1 x M	8 x F	3 x J	
03/06/14	n/a	18°C, sunny spells	2 x F	2 x J		
04/06/14	n/a	16°C, overcast	5 x F			
09/06/14	n/a	15°C, clear	3 x F	1 x J		
11/06/14	n/a	20°C, clear sunny	1 x F			
12/06/14	n/a	21°C, clear	5 x F			
16/06/14	n/a	18°C, overcast	6 x F	2 x M	4 x J	
24/06/14	08:45	20°C, clear sunny	2 x F	1 x FS	1 x J	
25/06/14	08:30	16°C, slight clouds, sunny	1 x F	1 x FS		
26/06/14	08:30	15°C, overcast but sunny	1 x F			
28/06/14	08:30	15°C, cloud / showers	2 x F	3 x FS	2 x J	
30/06/14	08:45	16°C, cloud / sunny spots	2 x M	1 x FS		
01/07/14	08:55	16°C, cloud / sunny / breeze	1 x F			
02/07/14	08:35	16°C, sunny / breeze	1 x F			
03/07/14	08:20	16°C, sunny / overcast	None			
04/07/14	08:35	17°C, overcast / sun / breeze	1 x M	1 x F	1 x MS	2 x J
07/07/14	08:35	16°C, overcast / sun	1 x F	2 x J		
08/07/14	08:35	16°C, cloudy	1 x F	3 x FS	1 x J	
09/07/14	08:35	14°C, cloudy / wet	1 x F	1 x FS	7 x J	
11/07/14	08:35	16°C, clear sun	1 x FS			
14/07/14	08:45	16°C, clear sun	1 x J			
15/07/14	08:30	18°C, overcast / wet ground	1 x F	4 x J		
16/07/14	08:40	18°C, sunny	1 x FS			
17/07/14	08:30	16°C, sunny / scattered clouds	1 x FS	1 x J		
18/07/14	08:25	20°C, sunny / wet ground / clouds	2 x F	1 x J	1 x M	
19/07/14	08:25	19°C, rain	1 x M			
21/07/14	08:25	18°C, sun / cloud	None			
22/07/14	08:30	20°C, sunny / wet ground	1 x F			
23/07/14	08:25	17°C, sunny / windy	1 x F	1 x J		
24/07/14	08:25	18°C, sunny	1 x F			
25/07/14	08:15	17°C, sun / cloud	1 x J	2 x F		
26/07/14	08:15	18°C, sunny	None			
28/07/14	08:30	16°C, cloudy / wind	1 x FS	4 x J		
28/07/14	19:20	21°C, clouds / showers	None			
29/07/14	08:30	17°C, overcast	1 x F		1 x M	
29/07/14	19:10	26°C, clear	None			
30/07/14	08:30	16°C, clear	None			
30/07/14	19:00	23°C, clear	None			
31/07/14	08:30	17°C, clear	1 x FS			
31/07/14	17:30	22°C, clear	None			
01/08/14	08:00	17°C, overcast / dark	None			
01/08/14	20:30	18°C, overcast	None			
02/08/14	08:10	18°C, cloudy	None			
03/08/14	08:20	16°C, clear	None			

Over the 44 capture visits in total 110 Slow Worms were translocated indicating the population increased significantly during the period between survey and development. As is evident from the above table capture rates peaked within the first 2 / 3 weeks and the steadily declined throughout the rest of the translocation operation. By early late July / early August numbers had dropped until the five negative visits required by the guidelines to state that sufficient effort has been expended.

Despite the high numbers captured, it is considered that with minor enhancements the carrying capacity of the receptor site will not be comprised and the population will be viable in both the short and long term.

3.1 Destructive Search

A supervised destructive search of the site is scheduled for the week beginning 11/8/2014. During this operation all suitable areas of habitat on site will have the topsoil stripped under a watching brief by an Ecosupport Ltd ecologist. Any Slow Worms that are encountered will be captured by hand and immediately transferred into the receptor site.

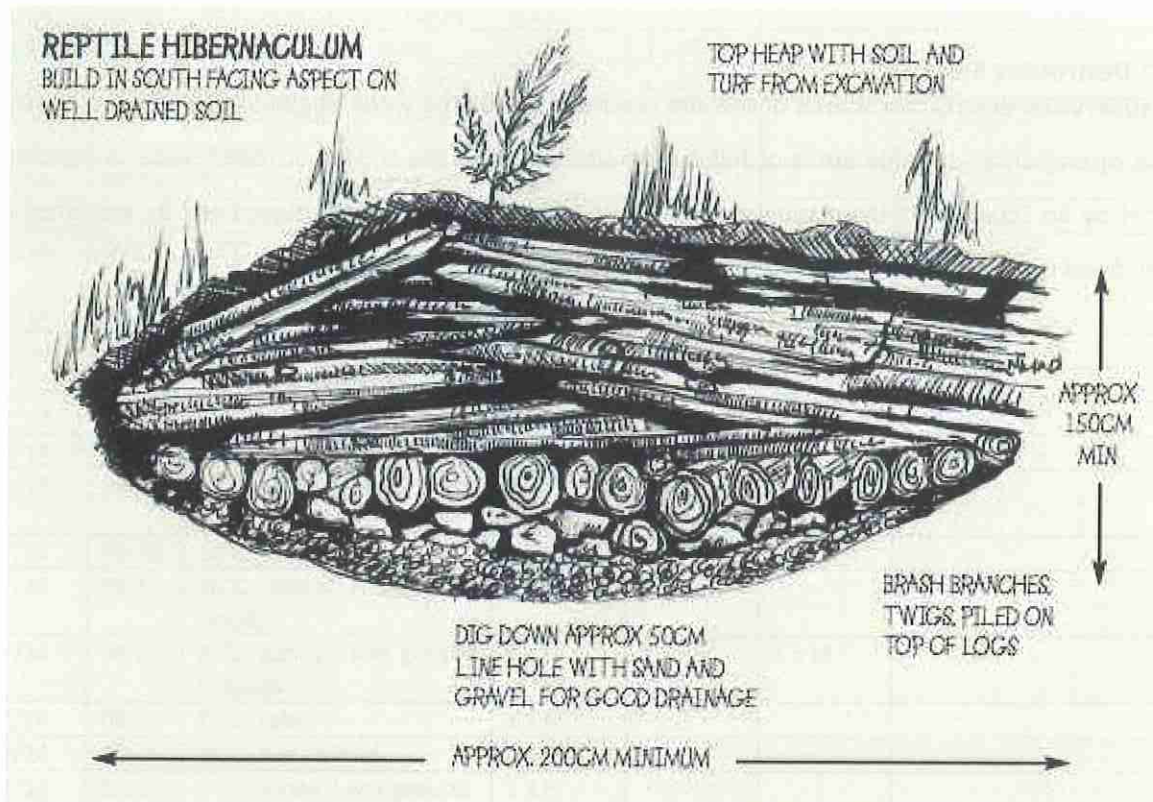
4.0 Future Works to Receptor

4.1 One Off Enhancement

4.1.1 Construction of hibernacula

In order to enhance the receptor area and ensure reptiles have a suitable area within which to hibernate, two hibernacula will be created. This will be done to the specification outlined within *Reptile Habitat Management: Guidelines for Landowners* (HART, 2009) (Fig 4). This document recommends the hibernaculum be positioned on a south-facing site with well drained soil.

Figure 4. Recommended specification for hibernaculum (HART 2009)



The approximate position of the hibernacula's is included in the accompanying landscape plan.

To further enhance the suitability of the area for reptiles and increase invertebrate biomass, a log pile will also be created. This will be dug into the ground to a depth of approximately 0.5 m and use logs of varying heights and widths to create a pyramid shape.

To avoid any potential impacts to reptiles, prior to the creation of these features the grass areas will be strimmed down in phases to ground levels of passively disperse any reptiles that may be present.

4.1.2 Pre Construction of POS

Prior to the construction works as part of the POS, the sward height of the southern section of the POS (intended for amenity use) will be maintained at a low height to discourage use of the area by Slow Worms. The edge of this area (to include the pathway and working space) will also be fenced off with a temporary high visibility fence to ensure that no construction personnel enter the area.

4.2 Management

4.2.1 Management

The HES document recommends the following management measures for the receptor:

“ The receptor area should be allowed to grow with minimal intervention and only be cut between November and February to minimise harm to reptiles and maximise structural diversity of the grassland vegetation. Also any scrub and tree cutting should take place between November and February to avoid disturbance of nesting birds. All cuttings will be raked up and removed from site.

Alternating strips of the grassland will be cut on a rotational basis every autumn (two or sections cut annually). Vegetation can be graded from a height of 35 cm to longer areas with Brambles. No two sections should be cut in the same year to allow reptiles to utilise these areas. The receptor site should be cut using hand operated reciprocating cutter, brush cutter or strimmer.

Winter cutting should avoid creating large areas of very short sward vegetation around the tree bases and the hibernaculum where reptiles need cover on emergence in spring “.

It is envisaged that the above managed prescriptions will be carried out in perpetuity.

The above measures will only be applicable to the northern section of the area, which will be the focus of the habitat improvement works for the benefit of Slow Worms. The southern section of the area (as indicated on the landscape plan) will be managed as amenity grassland for use by members of the public (i.e. sward height maintained low). There will be a post and rail fence along the edge of the pathway to prevent public access into the Slow Worm area and an interpretation board will be used as an educational resource about the purpose of the area.

4.2.2 Monitoring

The HGBI (1998) guidelines state that at least 5 years monitoring of the receptor site should be carried out to ensure the translocated population has successfully established. Appropriate

monitoring will take place annually over a 5-year period following the methodology outlined within Froglife (1999).

A site visit to assess and remedy any management problems within the receptor site should be undertaken annually by a SQE. This may include the implementation of annual weed management and managing areas of scrub should coverage exceed 20 % by area.

Summary results of this and the monitoring will be made available to the LPA.

4.3 Funding and Safeguard

4.3.1 General

The following recommendations were made within the HES (2012) mitigation strategy:

"The receptor site should:

- *Not be subject to planning or other threats in the foreseeable future;*
- *Be subject to a written, agreed and funded post translocation management agreement through a S106 agreement or similar (the basis of this document); and*
- *Be subject to a written, agreed and funded pre and post translocation monitoring programme through a S106 or equivalent".*

To supplement the protection of the receptor area a post and rail fence will be used along the edge of the path where a interpretation board will be placed to inform members of the public about the purpose of the area, its sensitivity and some information about Slow Worms (i.e. ecology status, legal protection).

It is understood that Portsmouth Water will assume the responsibility for funding the management and monitoring works as outlined within this document as detailed within paragraph 3.11 of the S106 agreement which reads as follows:

"Portsmouth Water (BPI is mentioned in the S106 though it is understood that Portsmouth Water will assume responsibility) and the Freeholder shall, following the laying out and construction of the Reptile Relocation Area be responsible for the management and maintenance of the Reptile Relocation Area in accordance with the specification approved by the Council".

6.0 REFERENCES

Froglife. (1999). *Reptile survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife Advice Sheet 10. Froglife, Halesworth, Suffolk.

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