

**Newhurst Quarry,
Shepshed, Leicestershire**

**Appendix 11/5
Reptiles:
Baseline Survey and Assessment**



**October 2009
SLR Ref: 403.0034.00308**



solutions for today's environment

CONTENTS

1.0	INTRODUCTION.....	1
1.1	Legislative Background.....	1
1.2	Survey Aims.....	1
2.0	SURVEY METHODOLOGY	2
2.1	Study Area	2
2.2	Existing Data Collection	2
2.3	Field Survey Methods	2
2.4	Survey Constraints	2
3.0	SURVEY RESULTS.....	3
3.1	Contextual Survey: Local Distribution of Reptiles.....	3
3.2	Field Survey Climatic Data	3
3.3	Survey Results	3
4.0	DISCUSSION AND EVALUATION.....	5
5.0	SUMMARY AND CONCLUSIONS	6
6.0	CLOSURE.....	7

DRAWINGS

Drawing 1 – Reptile Survey Results

1.0 INTRODUCTION

This report presents the findings of a reptile survey undertaken at Newhurst Quarry, Shepshed, Leicestershire, in 2009.

It has been prepared by SLR Consulting Limited (SLR) on behalf of Biffa to provide further information in support of a planning application and environmental impact assessment.

Ditch, open water, bare ground, aggregate stockpiles, dense ruderal and woodland edge habitats within the application site have the potential to support the commoner species of reptile: common lizard (*Zootoca vivipara*), slow worm (*Anguis fragilis*), grass snake (*Natrix natrix*) and adder (*Vipera berus*).

1.1 Legislative Background

Common lizard, slow worm, grass snake and adder are protected under Schedule 5 of the Wildlife and Countryside Act (WCA) 1981 in respect of part of sub-section 9(1) and all of sub-section 9(5) only. As such, it is an offence to intentionally kill, injure or trade these species. It is not an offence to possess these animals.

1.2 Survey Aims

The aims of survey work undertaken in 2009 are to:

- confirm the presence or absence of any populations of reptiles within and around the application site and estimate their distribution and abundance; and
- evaluate any reptile populations within the site in the local, regional and national context, using published guidelines where available.

The results of the study are presented in this report. Any recommended mitigation measures are outlined in the relevant chapter of the Environmental Statement and are not included in this report.

2.0 SURVEY METHODOLOGY

2.1 Study Area

The study area is marked by a red line boundary on Drawing 1. The study area included the application site (marked with a blue line boundary on Drawing 1) and the wider habitats associated with Newhurst Quarry.

2.2 Existing Data Collection

Records of reptiles within 2km of the application site were sought from Leicestershire Environmental Records Centre (LERC) to identify local habitat known to support reptiles.

2.3 Field Survey Methods

A survey for reptiles was carried out at the site in accordance with accepted survey methodologies and guidelines¹.

On 1st April 2009, artificial refugia consisting of tiles of corrugated roofing sheets and felt of various sizes were placed in areas of suitable habitat within the study area, as shown on Drawing 1. This comprised dense ruderal, ditch, scrub and woodland edge habitat and habitat adjacent to open water. A total of 150 tiles were placed within the site, representing a density of >10 refuges per hectare of suitable habitat. The approximate locations of the tiles are marked on Drawing 1.

Tiles were left for two weeks to allow them to 'bed in' and become more attractive to reptiles as refuges. Tiles were then checked for reptiles a further eight times during suitable weather conditions. Additional checks were made of any natural or artificial refugia already in place within the site, such as rubble piles and wood debris.

2.4 Survey Constraints

Survey visits were carried out in suitable weather conditions between April and August, which is an optimal season for reptile survey. In addition, access to all areas of suitable habitat within the site for survey was possible. However, lack of evidence of a protected species does not necessarily preclude their being present at a later date.

The above limitations are considered to be minor and it is unlikely that additional baseline survey of the site would materially alter the conclusions of this assessment based on the layout of the development as currently proposed.

¹ Reptile Survey – Froglife Advice Sheet 10

3.0 SURVEY RESULTS

3.1 Contextual Survey: Local Distribution of Reptiles

Records for common lizard, slow worm and adder were provided by LERC as part of the background data search. The records for adder and slow worm were from 1887 and 1960-63, respectively and as such will not be given further consideration in this report.

Common lizard has been recorded in six different locations at woodland located west of the Morley Clay Pit and Farm, approximately 1.3km to the south-west of the application site. Newhurst Quarry is separated from the woodland by the B591 Ingleberry Road.

Information contained on the NBN Gateway comprises additional records for grass snake, the closest of which is located 1.2km north-west of the site at Shepshed. This record is separated from the site by the A512 Ashby Road.

No further records of reptiles were provided by LERC or NBN Gateway.

3.2 Field Survey Climatic Data

Table 1 below shows the prevailing weather conditions during reptile survey in 2009. During all survey visits, the weather conditions followed Froglife guidelines for reptile survey.

Table 1 Survey Weather Conditions

Date	Temperature	Cloud	Wind	Precipitation
01/04/2009	15°C	0%	Light	None
06/04/2009	17°C	0%	None	None
15/04/2009	14°C	30%	Light to moderate	None
29/04/2009	16°C	10%	None	None
06/05/2009	10°C	100%	Moderate	Occasional, light rain
13/05/2009	17°C	15%	Moderate	None
27/05/2009	15°C	0%	Light	None
16/06/09	18°C	0%	Light	None
17/08/2009	20°C	60%	Light	None

3.3 Survey Results

The results of the reptile survey undertaken in 2009 are presented in Table 2.

Table 2 – Reptile Survey Results

Date	Reptiles	Other
01/04/2009	None	Badger scrapes and latrine recorded on bund in east of site and near unmanaged parkland
06/04/2009	None	
15/04/2009	None	Smooth newts under tile on bund at east of application site near telephone mast
29/04/2009	None	
06/05/2009	None	
13/05/2009	None	
27/05/2009	None	
16/06/09	None	
17/08/2009	None	Toad on east bund and at ditch; shrews

No evidence of reptiles was recorded within the application site or wider study area during any of the surveys undertaken in 2009.

4.0 DISCUSSION AND EVALUATION

Evaluation of species and assemblages follows those guidelines set out by the Institute of Ecology and Environmental Management (2006)².

No reptiles or evidence of their presence was recorded during the surveys undertaken at Newhurst Quarry in 2009. No records for the presence of any reptile species within the application site or in the wider quarry surroundings were provided by LERC or the NBN Gateway.

The records provided by LERC and the NBN Gateway within 2km of the site are all located in areas which are well separated from Newhurst Quarry, both by distance and major roads, namely the A512 Ashby Road and B591 Ingleberry Road. It is therefore unlikely that the species recorded in these locations would colonise the habitats within the quarry.

It is considered that no species of reptile are present within the application site or the wider area of Newhurst Quarry at the present time.

The site itself does support habitats which would be suitable to support reptiles, namely woodland edge, ruderal, rough grassland and bare open aggregate stockpiles, if access to the quarry was possible for colonisation. However, Newhurst Quarry is surrounded by major barriers to the movement of reptiles: the M1 to the east, A512 to the north and the B591 to the west. To the west and south are also areas of intensive arable farmland, a habitat which is not typically associated with reptiles. The likelihood of colonisation of the site by reptiles is considered to be low.

² Institute of Ecology and Environmental Management (2006) *Guidelines for Ecological Impact Assessment in the United Kingdom*

5.0 SUMMARY AND CONCLUSIONS

In 2009, Newhurst Quarry, Shepshed, Leicestershire was surveyed for reptiles. On 1st April, artificial refugia were placed in areas of suitable habitat within the application site. These were checked a further eight times for reptiles between April and August.

No reptiles were recorded within the application site or wider area of Newhurst Quarry. No records of any reptile species at Newhurst Quarry were provided during the data search and all records for reptiles within a 2km search area around the site were located in areas well separated from Newhurst Quarry.

Newhurst Quarry does support habitats which could be utilised by reptiles, however the quarry is isolated from other such habitats by major barriers including the M1 motorway and A512 Ashby Road.

It is not considered that reptiles are present at Newhurst Quarry and the likelihood of future colonisation by this faunal group is low.

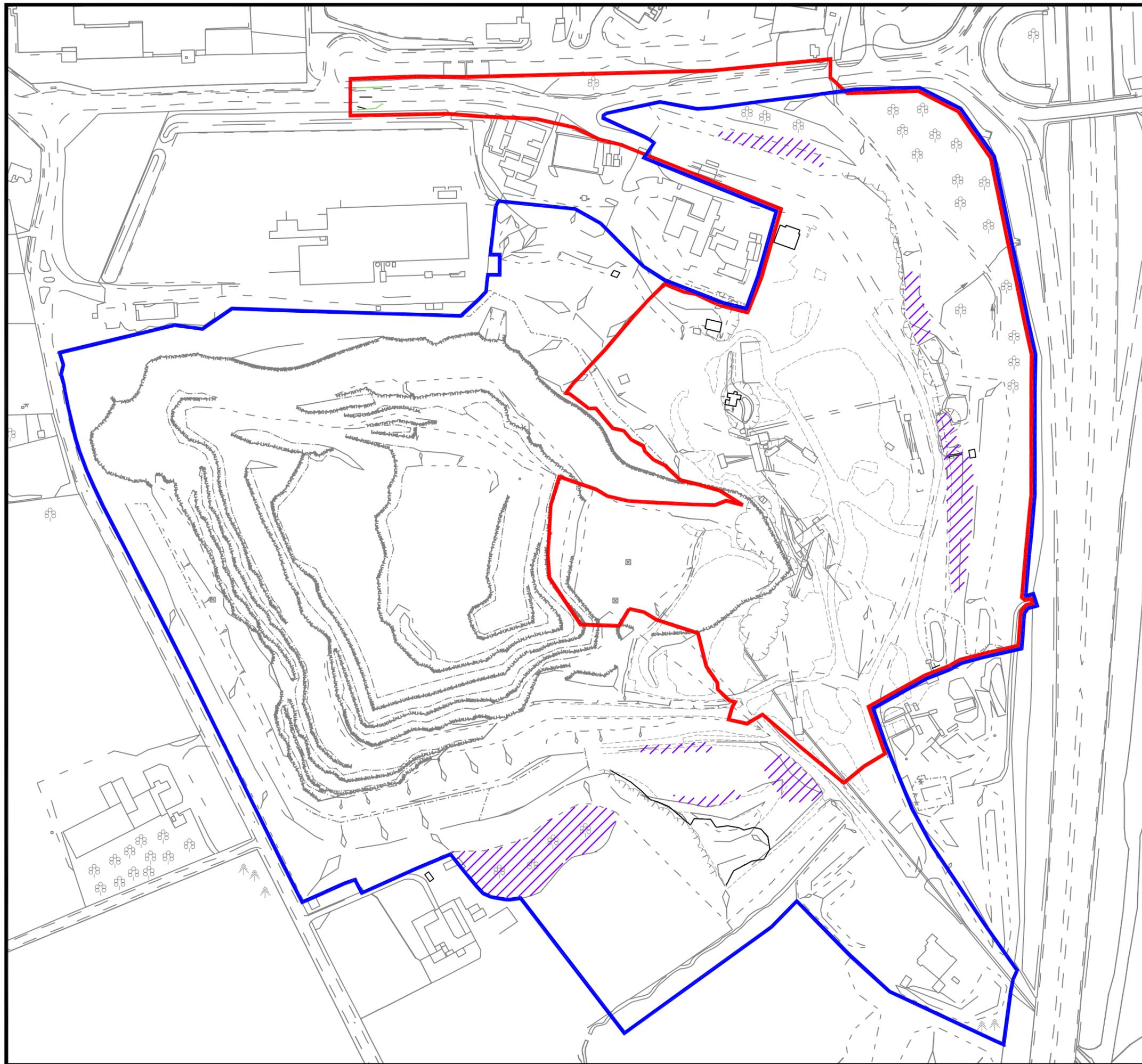
It is considered that sufficient survey undertaken to industry standard guidelines has been carried out at the site and that further survey work would not materially alter the conclusions of this report.

6.0 CLOSURE

This report has been prepared by SLR Consulting Limited with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

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LEGEND

-  APPLICATION SITE
-  OWNERSHIP BOUNDARY
-  LOCATION OF ARTIFICIAL REFUGIA



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PROJECT	Environmental Statement
LOCATION	Newhurst Quarry
DRAWING TITLE	Reptile Survey Results
DRAWING No. 1	COMPUTER REF. N603CG
DRAWN 403BS	DATE November 2009 SCALE(S) 1:3,000 © A3