global environmental solutions

Micheldever

Appendix 12-4 - Reptile Survey and Assessment

SLR Ref : 402-03620-00004

June 2012

Version: Rev 1

CONTENTS

1.0 INTRODUCTION 1
1.1 Legislative Background 1
1.2 Survey Aims 1
2.0 SURVEY METHODOLOGY 2
2.1 Survey 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

DRAWINGS

Drawing 1 Reptile Survey Location and Results

1.0 INTRODUCTION

This report presents the findings of a reptile survey undertaken at the application site at Micheldever, in 2012.

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

Grassland, scrub, bare ground, shallower sections of the central escarpment and woodland/scrub edge habitats within the application site have potential to support commoner species of reptile, such as common lizard (*Zootoca vivipara*), slow worm (*Anguis fragilis*), as well as possibly adder (*Vipera berus*).

1.1 Legislative Background

The above species are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) in respect of part of sub-section 9(1) and all of sub-section 9(5) only. With respect to development, it is an offence to intentionally killand injure these species.

1.2 Survey Aims

The aims of survey work undertaken in 2012 were to:

- establish with a reasonable level of confidence whether reptiles are present within and around the application site and if so, estimate their distribution and abundance; and
- evaluate any reptile populations found within the site in a local, regional and national context using published guidelines where available.

The results of the study are presented in this report.

2.0 SURVEY METHODOLOGY

2.1 Survey Area

The survey area comprised land within the application site boundary and additional habitat south of the application site, as shown on Drawing 1. The specific locations for survey within the application site and to the south are marked on Drawing 1.

2.2 Existing Data Collection

Records of reptiles within 2km of the application site were sought from Hampshire Biological Information Centre (HBI) and the returns are provided below. The records received from HBIC are presented in Appendix 12-1 of Chapter 12 in the main Environmental Statement (ES).

2.3 Field Survey Methods

A reptile survey was carried out at the site in accordance with accepted best practice survey methodologies and guidelines[1].

On 29th March 2012, 77 artificial 'heat refugia' (consisting of tiles of corrugated bitumen roofing sheet and flat bitumen roofing felt) were placed in areas of suitable habitat, such as scrub edge, bare ground / grassland mosaic, at the base of chalk faces and in woodland edge. A density of >10 refuges per hectare of suitable habitat was achieved, in line with best practice. The approximate locations of tiles are marked on Drawing 1.

Tiles were left in place for two weeks to allow them to be found and used by reptiles, before being checked on seven separate occasions during suitable weather conditions. During the survey visits, observational work was also undertaken, including visual checks of natural or artificial refugia that were already in place - for example rubble piles and wood debris - and visual checks for basking animals in natural basking sites such as on areas of bare ground.

2.4 Survey Constraints

Best practice guidelines have been followed throughout the survey process. As such, no constraints to these surveys have been identified.

[1] Reptile Survey – Froglife Advice Sheet 10

3.0 SURVEY RESULTS

3.1 Contextual Survey: Local Distribution of Reptiles

Only a single reptile record, for slow worm, was provided by HBIC as part of the background data search. This record is from approximately 1.4km east of the application site; in Black Wood. .

3.2 Field Survey Climatic Data

Table 1 below shows prevailing weather conditions during the survey. Froglife[1] define suitable weather conditions as having temperatures between 9° and 18°C, with a lack of strong winds and persistent precipitation. Warm or dry days following prolonged periods of cool/wet weather are considered to bring reptiles out. During all survey visits, conditions were in line with these guidelines.

Table 1 Survey Weather Conditions

Date	Temperature	Cloud	Wind	Precipitation
20/04/12	11°C	100%	1-2	None
25/04/12	9°C	60%	4-5	None
30/04/12	17°C	50%	0-1	None, but heavy rain on previous days
01/05/12	14°C	95%	2-3	None
09/05/12	14°C	95%	1-2	Rain early in day, dry during survey
17/05/12	11°C	40%	0-1	None
25/05/12	13°C	50%	2-3	None

3.3 Survey Results

Survey results are presented in Table 2, below. The locations of any reptiles recorded are marked on Drawing 1.

Table 2 – Reptile Survey Results

Date	Reptiles	Other
20/04/12	2 x SW (F)	
25/04/12	None	
30/04/12	1 x SW (M)	
01/05/12	1 x SW (F)	Wren and nest under tile
09/05/12	1 x SW (F), 1 x SW (J)	
17/05/12	None	
25/05/12	None	

Slow worm was the only reptile species recorded during the survey; at two locations (i) at the north end of the application site in an area of scrub grassland and (ii) to the south, just outside of the application site.

The peak number of slow worms recorded in any one survey was very low (two). Whilst it is not usual to undertake more than the seven visits required for presence surveys (in order to quantify population status 20 plus visits would be required), such a low peak count strongly

indicates that only a very small population is present; this is consistent with the majority of the site being at an early successional stage and in places having a very short, rabbit-cropped turf which is rather unsuitable for slow worm, which favour dense thatch into which they can burrow and seek refuge from predators[2].

[2]Edgar, P., Foster, J. & Baker, J. *Reptile Habitat Management Handbook* (2010) Amphibian and Reptile Conservation

4.0 DISCUSSION AND EVALUATION

Evaluation of reptile species / assemblages follows guidelines set out by the Institute of Ecology and Environmental Management (2006)[3].

Habitats within the site are suitable for slow worm; comprising bare ground interspersed with calcareous grassland and patches of sheltering scrub. The south and south west facing escarpment across the centre of the site provides sunny basking areas and the abundance of rubble and rabbit burrows provides shelter and hibernation habitat. The site supports a wide range of insect species and therefore also provides an adequate foraging resource for any reptiles present. Although slow worm has only been recorded in two locations, the potential exists for colonisation of the entire application site and area to the south as succession proceeds and a longer turf develops.

It is considered highly likely that this is a single small population, which has colonised suitable grassland habitat as rabbit-grazing pressure has eased and a turf has developed. The movement of this species to and from the north and east is likely to be at least party blocked by main roads and to the west by the railway line, and given that slow worm have a range of only several hundred meters square[2], it is possible that the site is ecologically rather isolated.

The presence of a low population of slow worm at the application site at Micheldever is considered to be an ecological receptor of Parish value.

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

SLR

global environmental solutions

AYLESBURY
7 Wornal Park, Menmarsh Road,
Worminghall, Aylesbury,
Buckinghamshire HP18 9PH
T: +44 (0)1844 337380

BELFAST
24 Ballynahinch Street, Hillsborough,
Co. Down, BT26 6AW Northern Ireland
T: +44 (0)28 9268 9036

BRADFORD-ON-AVON
Treenwood House, Rowden Lane,
Bradford on Avon, Wiltshire BA15 2AU
T: +44 (0)1225 309400

BRISTOL
Langford Lodge, 109 Pembroke Road,
Clifton, Bristol BS8 3EU
T: +44 (0)117 9064280

CAMBRIDGE
8 Stow Court, Stow-cum-Quy,
Cambridge CB25 9AS
T: + 44 (0)1223 813805

CARDIFF
Fulmar House, Beignon Close,
Ocean Way, Cardiff CF24 5HF
T: +44 (0)29 20491010

CHELMSFORD
Unit 77, Waterhouse Business Centre,
2 Cromar Way, Chelmsford, Essex
CM1 2QE
T: +44 (0)1245 392170

DUBLIN
7 Dundrum Business Park, Windy
Arbour, Dublin 14 Ireland
T: + 353 (0)1 2964667

EDINBURGH
No. 4 The Roundal, Roddinglaw
Business Park, Gogar, Edinburgh
EH12 9DB
T: +44 (0)131 3356830

EXETER
69 Polsloe Road, Exeter EX1 2NF
T: + 44 (0)1392 490152

FARNBOROUGH
The Pavilion, 2 Sherborne Road, South
Farnborough, Hampshire GU14 6JT
T: +44 (0)1252 515682

GLASGOW
4 Woodside Place, Charing Cross,
Glasgow G3 7QF
T: +44 (0)141 3535037

HUDDERSFIELD
Westleigh House, Wakefield Road,
Denby Dale, Huddersfield HD8 8QJ
T: +44 (0)1484 860521

LEEDS
Suite 1, Jason House, Kerry Hill,
Horsforth, Leeds LS18 4JR
T: +44 (0)113 2580650

MAIDSTONE
19 Hollingworth Court, Turkey Mill,
Maidstone, Kent ME14 5PP
T: +44 (0)1622 609242

NEWCASTLE UPON TYNE
Sailors Bethel, Horatio Street,
Newcastle upon Tyne NE1 2PE
T: +44 (0)191 2611966

NOTTINGHAM
Aspect House, Aspect Business Park,
Bennerley Road, Nottingham NG6 8WR
T: +44 (0)115 9647280

ST. ALBAN'S
White House Farm Barns, Gaddesden
Row, Hertfordshire HP2 6HG
T: +44 (0)1582 840471

SHEFFIELD
STEP Business Centre, Wortley Road,
Deepcar, Sheffield S36 2UH
T: +44 (0)114 2903628

SHREWSBURY
Mytton Mill, Forton Heath,
Montford Bridge, Shrewsbury SY4 1HA
T: +44 (0)1743 850170

STAFFORD
8 Parker Court, Staffordshire Technology
Park, Beaconside, Stafford ST18 0WP
T: +44 (0)1785 241755

WARRINGTON
Suite 9 Beech House, Padgate Business
Park, Green Lane, Warrington WA1 4JN
T: +44 (0)1925 827218

WORCESTER
Suite 5, Brindley Court, Gresley Road,
Shire Business Park, Worcester
WR4 9FD
T: +44 (0)1905 751310

Energy | Waste Management | Planning & Development | Industry | Mining & Minerals | Infrastructure