



Quaker's Yard, Treharris Reptile Survey

August 2022

Englobe





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RT Reptile Survey V4.2 11/01/2022

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Drawing Number: 223340/7/dwg1 Reptile Survey Results

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Contact details can be found at the end of this document.

1.0 Introduction

Background

- 1.1 Keystone Ecology was instructed by Englobe to undertake a Reptile Survey of land at a former gas works located at Quaker's Yard, Treharris (central grid reference ST 09820 96670). The survey is required to ensure legal compliance during initial site investigations and to inform a planning application for the main remediation works, which will require full site clearance as well as works to the riverbanks. The survey was recommended following a Preliminary Ecological Appraisal (PEA) of the site (Keystone Ecology, 2022).

Aims and Objectives

- 1.2 Aims and objectives of the field survey were as follows:
- to determine whether reptiles are present or likely absent from the site;
 - if reptile presence is confirmed, to determine species density and distribution;
 - to determine whether the site qualifies as an important reptile site using the Key Reptile Site Register;
 - to provide sufficient information for the evaluation of perceived impacts of development; and
 - Which type of mitigation measures would need to be employed (if any).

Site Characteristics

- 1.3 The 0.573 hectare site entirely comprises deciduous woodland. The River Taff Bargoed delineates the southern boundary of the site whilst the northern, eastern and western boundaries are contiguous with adjacent areas of broad-leaved woodland. A public footpath bisects the site and connects the small residential town of Treharris in the north with Mill Street in the south. Stone walls, overgrown with vegetation and small structural remains of the former gas works are scattered throughout the site. All other features of the gas works have been demolished and foundations are not visible through the ground flora.
- 1.4 The site is located on the southern outskirts of Treharris, South Wales. The wider landscape is characterised by small residential villages and communities including Nelson, Abercynon and Trelewis, surrounded by areas of grazing pasture and woodland. The River Taff Bargoed flows north-east to south-west and converges with the River Taff approximately 300 metres south of the site.

Legislation, Planning Context and Status¹

Protection Legislation

- 1.5 The native species of common reptiles (Common or Viviparous Lizard), Adder, Grass Snake and Slow-worm are partially protected under Schedule 5 of The Wildlife and Countryside Act (1981), under part of Section 9(1) and all of Section 9(5). As such it is an offence to:
- intentionally kill or injure an individual of these species; and
 - transport for sale or exchange or offer for sale or exchange a live or dead individual or any part of an individual of these species.

Protection Afforded by the Planning System

- 1.6 The Planning Policy Wales (PPW) (2021) sets out government policy regarding consideration of biodiversity in planning decisions. Under the PPW the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.
- 1.7 The PPW states that:

'When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- *if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- *proposed development on land within or outside a Site of Special Scientific Interest (SSSI) likely to have an adverse effect on a SSSI (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of SSSIs;*
- *development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;*
- *opportunities to incorporate biodiversity in and around developments should be encouraged;*
- *the following wildlife sites should be given the same protection as European sites: potential Special Protection Areas (SPA) and possible Special Areas of Conservation*

¹ Please note that this legal information is a summary and intended for general guidance only. The original legal documents should be consulted for definitive information. Web addresses providing access to the full text of these documents are given in the References Section.

(SAC); listed or proposed Ramsar sites; and sites identified, or required, as compensatory measures for adverse effects on European sites, potential SPAs, possible SACs, and listed or proposed Ramsar sites.'

- 1.8 Under the Environment (Wales) Act 2016 public bodies, including Local and Regional Planning Authorities have a duty to 'have regard' to the conservation of biodiversity in Wales when carrying out their normal functions, which includes consideration of planning applications. In compliance with Section 7 of the Act, the Welsh Ministers has published a list of species considered to be of principal importance for conserving biodiversity in Wales under the UK Post-2010 Biodiversity Framework. This is referred to as the list of Species/Habitats of Principal Importance in Wales, of which there are 55 habitats (HPI) and 551 species (SPI). The list is used to guide planning authorities in implementing their duty under the Environment (Wales) Act.
- 1.9 Slow-worm, Grass Snake, Adder and Common Lizard are SPI. No reptiles are local priority species in Merthyr Tydfil County (Merthyr Tydfil Biodiversity Partnership, 2014).
- 1.10 Under Regulation 9(5) of the Conservation Regulations, Planning Authorities also have a legal duty to 'have regard to the requirements of the Habitats Directive in the exercise of their functions'. As demonstrated by the case of Woolley vs. Cheshire East Borough Council and Millennium Estates Ltd (2009), this means that they must consider the 3 Habitats Directive tests (see above) when determining whether Planning Permission should be granted for developments likely to cause an offence under the Conservation Regulations. As a consequence, Planning Applications for such developments must demonstrate that the 3 tests will be passed.

2.0 Methodology

Desk Study

- 2.1 As part of the Preliminary Ecological Appraisal (PEA) carried out by Keystone Ecology (Keystone Ecology, 2022), South-east Wales Biodiversity Records Centre (SEWBReC) was contacted for records of reptiles within 500 metres of the proposed development site.
- 2.2 Web-resource (Natural Resources Wales 2022) were also searched for any sites designated for reptiles within a 500 metre radius of the site boundary.

Field Survey

- 2.3 Reptile survey equipment was set out in areas of potential habitat for reptiles on 15th August 2022, by a suitably qualified ecologist (Ron Thomas (BSc (Hons)) from Keystone Ecology who satisfies all necessary field survey competencies as set out by our governing body, the Chartered Institute for Ecology and Environmental Management (CIEEM). The equipment comprised artificial refugia made of 4 millimetre torch on roofing felt 50 x 50 centimetres in size as well as larger corrugated panels 50 x 100 centimetres in size. A total of 50 refugia were laid in suitable habitat around the site. The refugia were numbered and their locations were mapped (refer to *Drawing Number: 223340/7/dwg1*) to record reptile distribution and to calculate population density. The refugia were collected upon completion of the fieldwork.
- 2.4 The refugia were placed in the vegetation of the woodland herb layer. Current survey guidelines recommend a minimum refuge density of 10 refuges per hectare (Hill *et al.*, 2005 and Froglife, 1999). Taking into account the total area of the site, refugia were placed at a density of approximately 100 per hectare.
- 2.5 The refugia were left to bed down for 2 weeks prior to the first check. During this time, they develop favourable conditions (e.g., suitable humidity and temperature gradient) and the reptiles become more familiar with them.
- 2.6 The refugia were checked for non-consecutive 7 days to obtain sufficient data to prove presence or likely absence (Hill *et al.*, 2005).
- 2.7 In line with current survey guidelines (Froglife, 1999), checks of the refugia were undertaken during suitable weather conditions (see *Appendix 1* for weather conditions at time of survey).

Site Status Assessment

- 2.8 Each survey visit may reveal only a small sample of the reptile population occurring on site, because the proportion of individuals recorded varies according to weather, migration patterns etc. A mechanism known as the Key Reptile Site Register can be used to obtain a basic evaluation of the population size and importance of the site. It has been designed to identify and promote the safeguarding of important reptile sites, with outstanding assemblages being the guiding principle in judging sites.
- 2.9 To qualify for the Key Reptile Site Register, the site must meet at least 1 of the following criteria (Froglife, 1999):

- Supports 3 or more reptile species;
- Supports 2 snake species;
- Supports an exceptional population of 1 species (see *Table 1*);
- Supports an assemblage of species scoring at least 4 (see *Table 1*); and
- Does not satisfy any of the above but which is of particular regional importance due to local rarity.

Table 1: Key Reptile Site Register Population Scores

Species	Low Population Score 1	Good Population Score 2	Exceptional Population Score 3
Adder	< 5	5 - 10	> 10
Grass Snake	< 5	5 - 10	> 10
Common Lizard	< 5	5 - 20	> 20
Slow-worm	< 5	5 - 20	> 20

Figures in the table refer to maximum number of adults seen by observation and/or under refugia (placed at a density of up to 10 per hectare, by one person in one day). This survey utilised a higher number of refugia with the assessment table in Appendix 2 adjusting the results proportionally to be comparable to the figures above.

Nomenclature

- 2.10 The English names of flora and fauna species are given in the main text of this report. Scientific names are used only in the absence of English names. Vascular plants and Charophytes follow the nomenclature of The Botanical Society for the British Isles database (2007) with all other flora and fauna following the UK Species Inventory (Natural History Museum, 2016).

Limitations

- 2.11 The results of the survey and assessment work undertaken by Keystone Ecology are representative at the time of surveying.
- 2.12 Keystone Ecology staff and their sub-consultants will endeavour to identify the presence of protected species wherever possible on site, where this falls within the agreed scope of works.
- 2.13 Up to date standard methodologies will be used, which are accepted by Natural England and other statutory conservation bodies. No responsibility will be accepted where these

methodologies fail to identify all species on site. Keystone Ecology cannot take responsibility where Government, national bodies or industry subsequently modify standards.

- 2.14 Keystone Ecology cannot accept responsibility for data collected from third parties.

3.0 Results and Assessment

Desk Study

- 3.1 As part of the PEA, 11 records of Slow-worm within 170 metres of the site were found.
- 3.2 No European, statutory or non-statutory designated sites for reptiles are present within 500 metres of the site.

Field Survey

- 3.3 Woodland on site has open areas which provide suitable habitat for reptiles. The habitats on site are well connected to adjacent suitable habitats via the well vegetated river running parallel with the southern site boundary as well as the woodland to the north of the site.
- 3.4 No reptiles were found during any of the 7 survey visits.

4.0 Impacts

- 4.1 Minor vegetation clearance will be undertaken to facilitate site investigations, with full site clearance following to facilitate main remediation works, which include works to the banks of the Bargoed Taf.
- 4.2 Given the likely absence of reptiles based on the findings of this survey, no impacts to reptiles are predicted as a result of either site investigations or main works.

5.0 Recommendations and Requirements

Further Survey

- 5.1 No further survey will be required unless the works are delayed by 12 – 18 months. In accordance with CIEEM guidelines for the validity of survey data (2019), if this were the case, an updated reptile survey would be required, in accordance with current guidelines (Hill *et al.*, 2005 and Froglife, 1999) to confirm that the status of the site remains as described within this report.

Opportunities for Biodiversity Enhancement

- 5.2 In accordance with national and local planning policy, opportunities for biodiversity enhancement (above and beyond those required to mitigate for the identified impacts) are set out below:
- 3 x hibernacula should be created along the northern boundary of site along the woodland edge following the completion of main works. For hibernacula specifications please refer to *Appendix 3*

6.0 References

Botanical Society for the British Isles (2007). *BSBI 2007 List*. Available at: <http://www.bsbi.org.uk/taxonomy.html> [Accessed on 26th October 2022]

Chartered Institute of Ecology and Environmental Management (2019). Advice note: ON the Lifespan of Ecological Reports and Surveys. Available at: Advice note on the Lifespan of Ecological Reports and Surveys | CIEEM. [Accessed on 26th October 2022]

English Nature (2001). *Great Crested Newt Mitigation Guidelines*. English Nature.

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

Hill D., Fasham M., Tucker G., Shrewry M. and Shaw P., (2005). *Handbook of Biodiversity Methods, Survey, Evaluation and Monitoring*. Cambridge University Press: Cambridge.

Keystone Ecology (2022). *Preliminary Ecological Appraisal*. Keystone Ecology: Tetbury.

Merthyr Tydfil Biodiversity Partnership (2014) *Action for Wildlife in Merthyr Tydfil - The Merthyr Tydfil Biodiversity Action Plan*. Available at: <https://www.merthyr.gov.uk/resident/planning-and-building-control/countryside-and-natural-environment/countryside-management-projects/> [Accessed on 26th October 2022]

Natural History Museum. (2016). *UK Species Inventory*. Available at: <http://www.nhm.ac.uk/research-curation/scientific-resources/biodiversity/uk-biodiversity/uk-species/index.html> [Accessed on 26th October 2022]

Web Addresses for Access to Full Legislation and Policy Text:

Conservation of Habitats and Species Regulations 2010 (as amended):
<http://www.legislation.gov.uk/uksi/2012/1927/contents/made>

Countryside and Rights of Way Act 2000:
<http://www.legislation.gov.uk/ukpga/2000/37/contents>

Environment (Wales) Act 2016:
<https://www.legislation.gov.uk/anaw/2016/3/section/6/enacted>

Habitats Directive:
http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm

Planning Policy Wales:
<http://planningaidwales.org.uk/planning-policy-wales-edition-11/>

UK Post-2010 Biodiversity Framework:
<http://jncc.defra.gov.uk/page-6189>

Wildlife and Countryside Act 1981:

<http://www.legislation.gov.uk/ukpga/1981/69>

Plans



Key

SB

Line along which reptile refugia were laid

No reptiles were recorded during the surveys



Englobe
Quakers Yard, Treharris
Drawing Number: 223340/7/dwg1
Reptile Survey Results

Revision	Date	Drawn	Approved
rev0	25/10/2022	MM	TA

N

051015m

Central grid ref: ST098966

No dimensions to be scaled from this drawing
All dimensions are to be checked on site
Measurements displayed are for indicative purposes only

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Appendices

Appendix 1

Weather Conditions

Keystone Environmental Ltd

Treharris

Reptile Survey Results 2022

Weather Conditions during refugia checking

Date	Temp (°C)	Wind Speed	Cloud Cover (%)	Precipitation
02/09/22	18	None	50	Dry
05/09/22	16	None	20	Dry
07/09/22	16	Light	20	Dry
09/09/22	15	Light	100	Dry
12/09/22	17	Light	25	Dry
14/09/22	16	Light	50	Dry
16/09/22	14	None	50	Dry

Appendix 2

Reptile Survey Results

Keystone Ecology

Treharris

Reptile Survey Results 2022

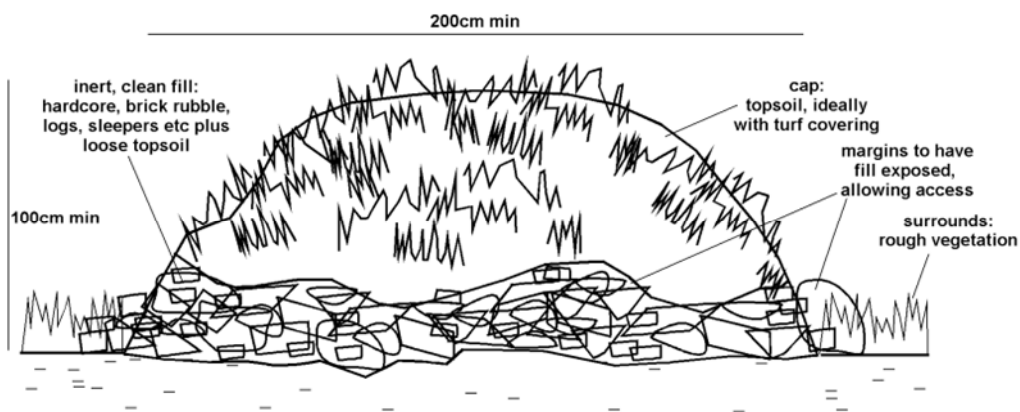
Summary

Site area (Ha): 0.5 No. Refugia used: 50 Description of Refugia: 40 flat 0.5x0.5, 10 corrug 0.5x0.5
 Suitable habitat (Ha): 0.5 No. Refugia per Ha: 100 Time to bed down: 14 days

Survey	Date	Common Lizard				Slow Worm				Grass Snake				Adder				Other	
		Male	Female	Juvenile	Adult Total	Male	Female	Juvenile	Adult Total	Male	Female	Juvenile	Adult Total	Male	Female	Juvenile	Adult Total	Total	Description
1	02/09/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	05/09/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	07/09/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	09/09/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	12/09/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	14/09/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	16/09/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Maximum Count				Maximum Count				Maximum Count				Maximum Count					
		Population size				Population size				Population size				Population size					
		Population score				Population score				Population score				Population score					

Appendix 3

Hibernacula Specifications (English Nature, 2001)



Keystone Contact Details

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