



Pennant Walters

Mynydd y Glyn Wind Farm

Draft Environmental Statement
Appendix 8C Reptile Report



This report was prepared by WSP Environment & Infrastructure Solutions UK Limited (formerly known as Wood Environment & Infrastructure Solutions UK Limited), company registration number 02190074, which is carrying out these services as a subcontractor and/or agent to Wood Group UK Limited

October 2022



Report for

Pennant Walters

Main contributors

Katie Watkins

Issued by

PP *Chris Prydderch*

.....
Katie Watkins

Approved by

Chris Hill

.....
Jenny Iles

pp

WSP Environment & Infrastructure Solutions UK Limited

Copyright and non-disclosure notice

The contents and layout of this report are subject to copyright owned by WSP (© WSP Environment & Infrastructure Solutions UK Limited 2022) save to the extent that copyright has been legally assigned by us to another party or is used by WSP under licence. To the extent that we own the copyright in this report, it may not be copied or used without our prior written agreement for any purpose other than the purpose indicated in this report. The methodology (if any) contained in this report is provided to you in confidence and must not be disclosed or copied to third parties without the prior written agreement of WSP. Disclosure of that information may constitute an actionable breach of confidence or may otherwise prejudice our commercial interests. Any third party who obtains access to this report by any means will, in any event, be subject to the Third Party Disclaimer set out below.

Third party disclaimer

Any disclosure of this report to a third party is subject to this disclaimer. The report was prepared by WSP at the instruction of, and for use by, our client named on the front of the report. It does not in any way constitute advice to any third party who is able to access it by any means. WSP excludes to the fullest extent lawfully permitted all liability whatsoever for any loss or damage howsoever arising from reliance on the contents of this report. We do not however exclude our liability (if any) for personal injury or death resulting from our negligence, for fraud or any other matter in relation to which we cannot legally exclude liability.

Management systems

This document has been produced by WSP Environment & Infrastructure Solutions UK Limited in full compliance with our management systems, which have been certified to ISO 9001, ISO 14001 and ISO 45001 by Lloyd's Register.

Document revisions

No.	Details	Date
1	Report Version 1	September 2022
2	Final	October 2022

Contents

1.	Introduction	4
1.1	Background	4
1.2	Purpose of this report	4
1.3	Legislation	4
2.	Methodology	5
2.1	Desk study	5
2.2	Field survey	5
2.3	Limitations	5
2.4	Personnel	6
3.	Results	7
3.1	Desk study	7
3.2	Field survey	7
4.	Conclusion	9

Table 3.1	Reptile desk study data	7
Table 3.2	Reptile survey results	7
Table 3.3	Maximum adult count	8
Table 4.1	Key Reptile Site scoring criteria	9

Annex A	Figures	
Annex B	Personnel involved in survey work	

1. Introduction

1.1 Background

Pennant Walters is seeking consent for a wind farm of up to seven turbines on land at Mynydd y Glyn, Pontypridd ('the Site'). The Site lies within the Rhondda Cynon Taf County Borough Council administrative area and is located approximately 3km west of Pontypridd (National Grid Reference (NGR) ST 03605 89504). The Site comprises a plateau of grazing pasture with areas of conifer plantation woodland and blanket bog and measures 182.27 hectares (ha) (**Figure 1.1, Annex A**).

1.2 Purpose of this report

During the initial Preliminary Ecological Appraisal (PEA, see **Appendix 8A**)¹ suitable habitat for reptile foraging, refuging and commuting was recorded across the Site. In particular, areas of less well grazed semi-improved grassland, wet heath, continuous bracken and scrub provides the potential to support the widespread British reptile species.

Wood Group UK Ltd (Wood²) was therefore commissioned by Pennant Walters to undertake a suite of reptile surveys of the Site in order to inform the evolution of the project design and specification of environmental measures. The results have also informed the Environmental Impact Assessment (EIA). This report details the methods adopted and the results of the survey work undertaken.

1.3 Legislation

The four widespread³ species of reptile that are native to Britain, namely viviparous lizard (*Zootoca (Lacerta) vivipara*), slow worm (*Anguis fragilis*), adder (*Vipera berus*) and grass snake (*Natrix natrix (Naturix helvetica)*), are listed in Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended) and are afforded limited protection under Section 9 of this Act. This makes it an offence, *inter alia*, to intentionally kill or injure any of these species.

¹ Wood (2020). Mynydd y Glyn Wind Farm: Preliminary Ecological Appraisal. Report for Pennant Walters Wood Group UK Limited, Bristol.

² Now WSP Environment & Infrastructure Solutions UK Ltd

³ The other native species of British reptile (sand lizard and smooth snake) receive a higher level of protection in England and Wales under the *Conservation of Habitats and Species Regulations 2017* and the *Wildlife and Countryside Act 1981* (as amended). However, the distribution of these species is restricted to only a very few Sites. All marine turtles (*Cheloniidae* and *Dermochelyidae*) are also protected.

2. Methodology

2.1 Desk study

A desk study was undertaken in May 2020 to feed into the design of field surveys. The desk study included a search for reptiles within 2km of the Site from South East Wales Biodiversity Records Centre (SEWBRc).

2.2 Field survey

A presence/absence survey for reptiles was carried out in the areas of habitat on Site that were identified during the PEA to have the potential to support reptiles. The survey involved seven visits and comprised the following methods, based on those recommended by Griffiths and Inns⁴, and Froglife⁵:

- direct observation – during each survey visit the locations of any reptiles observed basking in the open were recorded;
- refugia searches – any existing potential refugia were carefully searched for reptiles; especially log-piles, rubble, and discarded wood;
- artificial refugia – 355 artificial refugia were placed in appropriate locations. These are shown on (**Figure 2.1, Appendix A**). Artificial refugia were sited along the margins of scrub, rough grassland, bramble, and ruderal vegetation. Artificial refugia consisted of 0.5m x 1.0m sheets of roofing felt. Survey visits involved recording all reptiles observed under, on top of or next to the refugia; and
- the seven survey visits took place during September 2020.

Reptile activity is very dependent on the weather and time of year as reptiles are ectotherms and therefore must bask in order to warm themselves and become active. April, May and September are key months for basking reptiles, as more continuous mid-summer heat in other months means reptiles require less basking time to become active, and are therefore less likely to be recorded¹⁰. Successful surveys may still be carried out from June to August, provided that the weather conditions are suitable. Optimum conditions occur under intermittent sunshine with little or no wind, particularly after a spell of cooler or wetter weather. Individual species have some specific preferences although generally it is preferable to survey when the temperature is between 10 and 17°C¹¹.

2.3 Limitations

All visits were conducted as far as was practically possible in optimum conditions. Although some visits were carried out outside of the ideal temperature range (>17°C), conditions were still deemed suitable for reptile activity.

Surveys were conducted based on the Site boundary in 2020; the Site boundary has since changed and some survey locations are now outside the Site boundary (where the boundary has reduced), and some new areas are included in the Site which weren't surveyed (areas surveyed

⁴ Griffiths, R. and Inns, H. (1998). Surveying. In: Gent, A. H. and Gibson, S. D. eds. *Herpetofauna workers' manual*. Joint Nature Conservation Committee, Peterborough, pp1-13.

⁵ Froglife (1999). *Reptile survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife Advice Sheet 10. Froglife, Halesworth.

shown in **Figure 2.1, Annex A**). The surveys conducted on and adjacent to the Site provide broad coverage of the Site and are considered suitable to inform an impact assessment and mitigation strategy for the reptile populations on Site. Any areas which weren't surveyed that are continuous with and of similar habitat to those areas where reptiles were recorded are considered to support the same species of reptiles as well.

2.4 Personnel

All survey work was undertaken by suitable qualified and experienced ecologists from Wood. Details of key personnel are provided in **Annex B**.

3. Results

3.1 Desk study

The desk study identified records of viviparous lizard and grass snake recorded within 1km of the Site. These records are summarised below in **Table 3.1**.

Table 3.1 Reptile desk study data

Species	Number of Records	Year of most recent record	Distance away from Site (m) and direction
Viviparous lizard	5	2016	939 North
Grass Snake	2	2018	647 West

3.2 Field survey

The full reptile survey results are provided in **Table 3.2** with a summary of the maximum adult counts for each species recorded in **Table 3.3**. **Figure 3.1 (Annex A)** shows the distribution of reptile species that were recorded across the Site.

Table 3.2 Reptile survey results

Visit	Date	Weather	Total number of individuals recorded		
			Viviparous lizard	Slow worm	Grass snake
1	04/09/2020	Cloud cover: 80%. Wind speed: Calm. Ground moisture: Damp. Rain: None. Temperature: 14°C.	11 adults, 6 sub-adults and 9 juveniles.	1 adult male, 2 adult females and 1 juvenile.	1 sub-adult and 1 juvenile.
2	07/09/2020	Cloud cover: 85%. Wind speed: Calm Ground moisture: Damp. Rain: Light drizzle. Temperature: 16-17°C.	6 adults, 5 sub-adults and 1 juvenile.	2 adult males and 1 adult female.	2 adults
3	11/09/2020	Cloud cover: 70%. Wind speed: Calm. Ground moisture: Damp. Rain: None. Temperature: 15-17°C.	13 adults, 1 sub-adults and 3 juveniles.	No individuals recorded	No individuals recorded. Shed snakeskin was recorded on this survey.

Visit	Date	Weather	Total number of individuals recorded		
			Viviparous lizard	Slow worm	Grass snake
4	14/09/2020	Cloud cover: 15%. Wind speed: Calm. Ground moisture: None. Rain: None. Temperature: 16-18°C.	3 adults, 2 sub-adults and 0 juveniles.	No individuals recorded	2 adults
5	16/09/2020	Cloud cover: 40%. Wind speed: None. Ground moisture: Damp. Rain: None. Temperature: 15-20°C.	9 adults, 1 sub-adults and 0 juveniles.	2 adult males.	No individuals recorded
6	21/09/2020	Cloud cover: 5%. Wind speed: Calm. Ground moisture: None. Rain: None. Temperature: 17-19°C.	1 adult, 1 sub-adults and 0 juveniles.	No individuals recorded	No individuals recorded
7	25/09/2020	Cloud cover: 65%. Wind speed: Light. Ground moisture: Damp. Rain: None. Temperature: 13°C.	18 adults, 1 sub-adults and 0 juveniles.	No individuals recorded	1 adult

Table 3.3 Maximum adult count

Species	Maximum Adult Count
Viviparous lizard	18
Slow worm	3
Grass snake	2

4. Conclusion

During the presence/absence survey three reptile species were recorded in suitable habitat within the Site boundary, with results giving a maximum count of:

- Viviparous lizard: 18 adults and nine juveniles;
- Slow worm: three adults and one juvenile; and
- Grass snake: two adults.

These results indicate the presence of a 'low' population of slow worm and grass snake and a 'good' population of viviparous lizard. However, it should be noted that only a presence/absence survey has been carried out to date, such that higher numbers may be recorded if a full population estimate were completed. While it is never possible in a survey such as this to confirm the absolute absence of a species on a Site, no adders were observed. Paired with the lack of records for this species in the desk study, it is not considered this species occurs within the Site.

In view of this, the Site is classed as a Key Reptile Site⁶ on the basis that:

- it supports a cumulative population 'score' of at least four. Note a score of 2 is allocated for a good population of viviparous lizard, whilst a low population of slow and grass snake achieves a score of 1 each, hence the cumulative score is 4 (as detailed with Table 4.1 that is taken from Froglife Advice Sheet 10⁷); and
- it supports three reptile species.

Table 4.1 Key Reptile Site scoring criteria

Species	Low population Score 1	Good population Score 2	Exceptional population Score 3
Viviparous lizard	<5	5-20	>20
Slow worm	<5	5-20	>20
Grass snake	<5	5-20	>10

The figures in the table refer to the maximum number of adults seen by observation and or under refugia by one person in one day⁶.

⁶ The Key Reptile Site Register is a mechanism designed to promote the safeguard of important reptile sites.

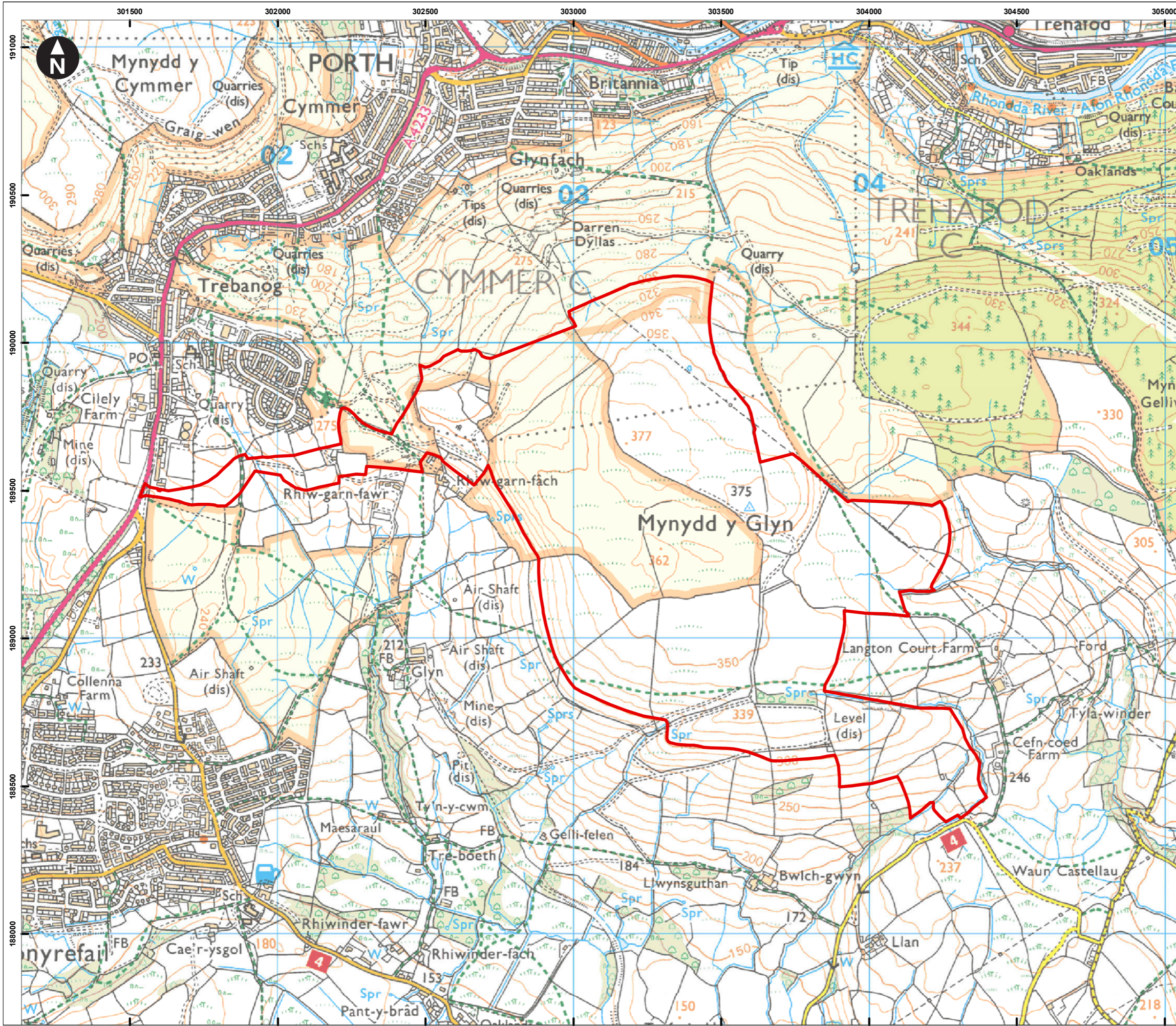
⁷ Froglife (1999). *Reptile survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife Advice Sheet 10. Froglife, Halesworth.

Annex A

Figures

- Figure 1.1 Site Location Plan
- Figure 2.1 Artificial Refugia Felt Location
- Figure 3.1 Reptile Species Distribution Map

H:\Projects\42864 Mynydd y Glyn\Deliver Stage\Design_Technical\Drawings\GIS\Workspaces\42864-WOOD-XX-XX-FG-OE-0041_S2_P01.2.mxd Originator: jacqui.parkin



Key
 Site boundary

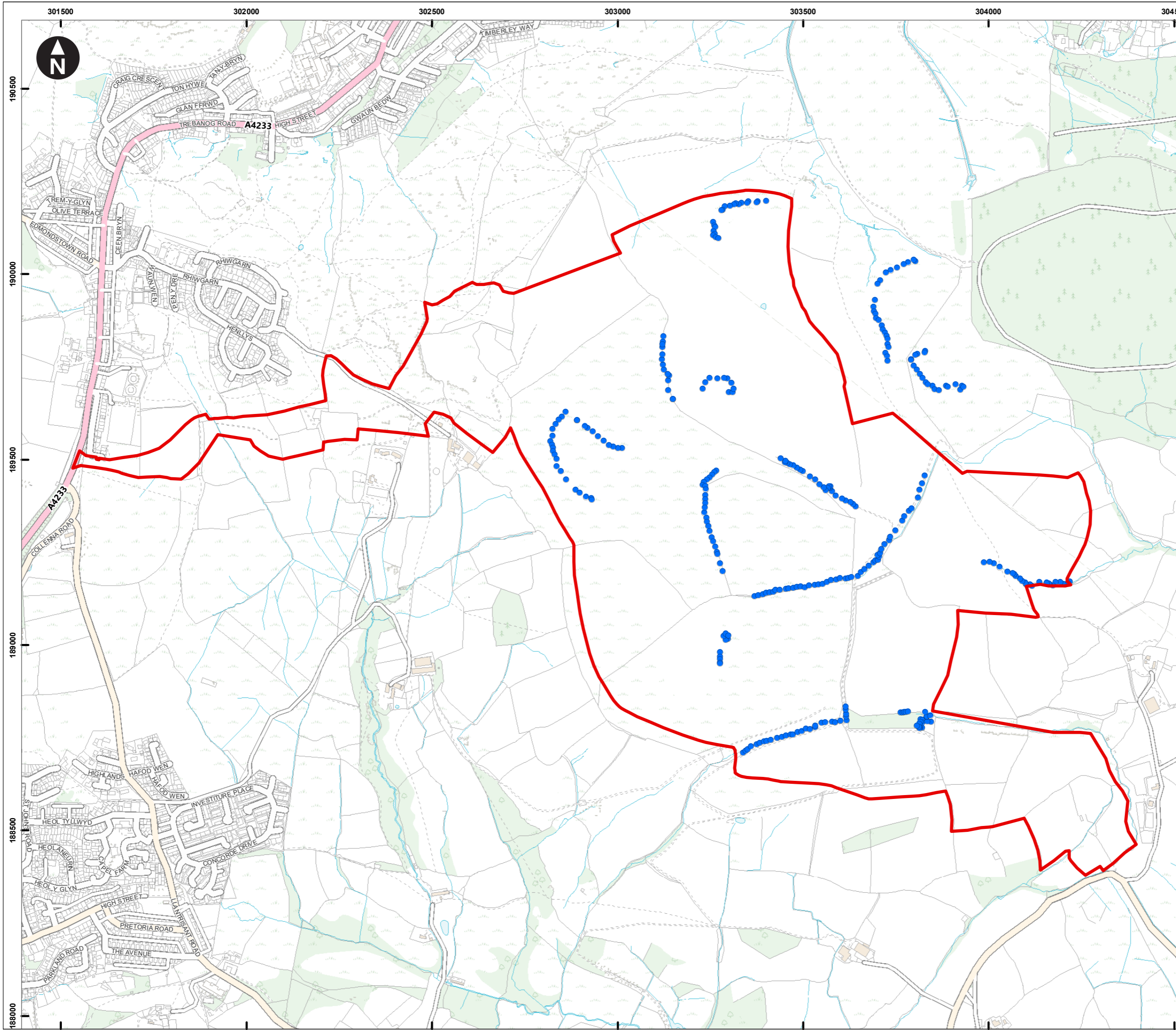
0 100 200 300 400 500 600 700 m
 Scale at A3: 1:12,500
 © Crown copyright and database rights 2021 Ordnance Survey
 0100031673

Pennant Walters
 Mynydd y Glyn Wind Farm
 Reptile Report

Figure 1.1
 Site location

October 2022





- Key
- Site boundary
 - Reptile refugia location

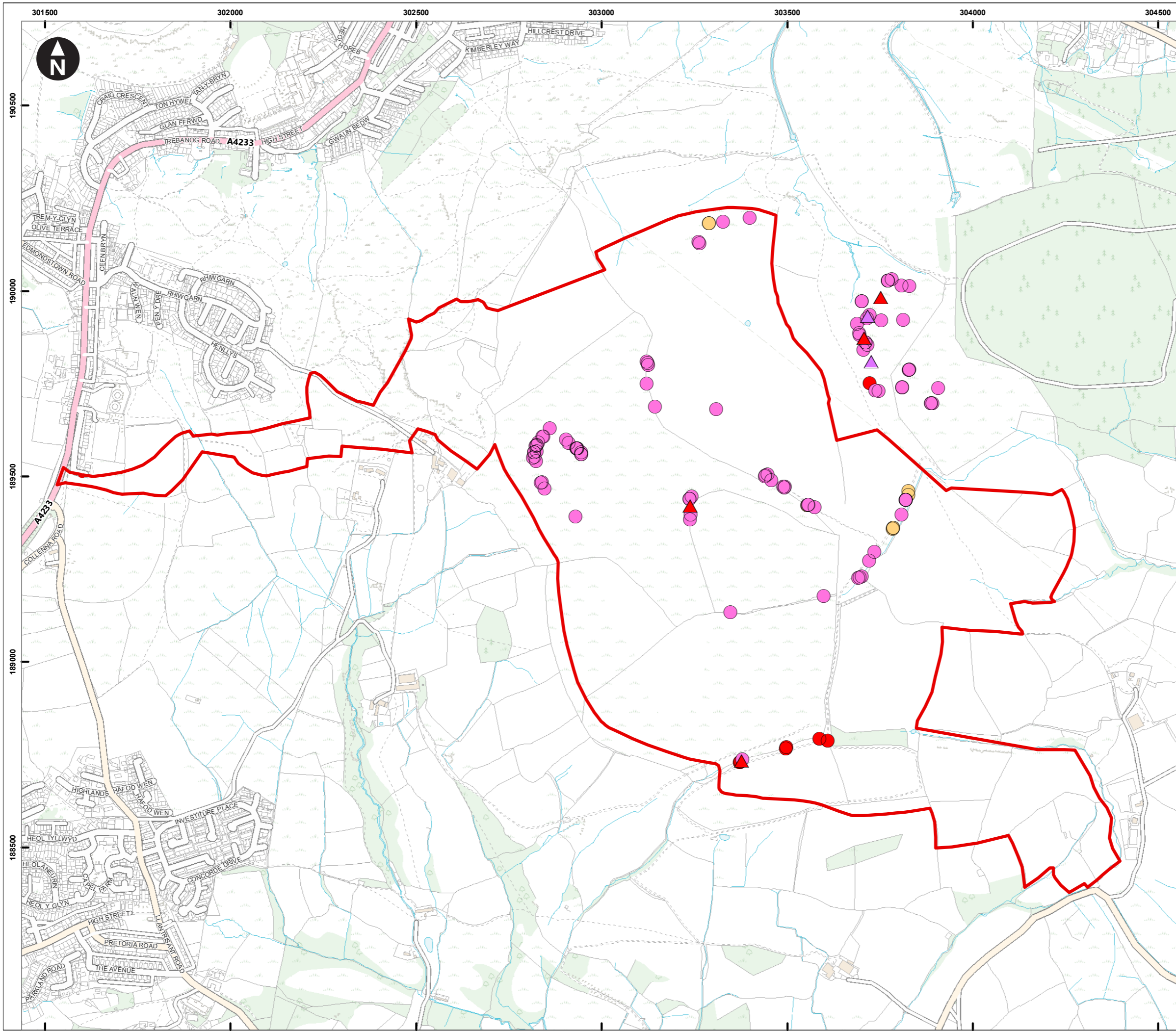
0 100 200 300 400 500 600 m
 Scale at A3: 1:10,000
 © Crown copyright and database rights 2022 Ordnance Survey
 0100031673

Pennant Walters
 Mynydd y Glyn Wind Farm
 Herpetofauna Report

Figure 2.1
Distribution of reptile felts

October 2022





Key

- Site boundary

Reptile

- Common lizard
- ▲ Common lizard slough
- Grass snake
- ▲ Grass snake skin
- Slow worm

0 100 200 300 400 500 600 m

Scale at A3: 1:10,000

© Crown copyright and database rights 2022 Ordnance Survey 0100031673

Pennant Walters
Mynydd y Glyn Wind Farm
Reptile Report

Figure 3.1
Reptile species distribution map
(presence)

October 2022



Annex B

Personnel involved in survey work

Surveyor Name	Position	Qualifications and Experience
Claire Neale	Senior Consultant	BSc (Hons), MSc. 6 years working in ecological consultancy
Gary Lindsay	Consultant	BSc (Hons), MSc. 4 years working in ecological consultancy
Katie Watkins	Assistant Consultant	BSc (Hons), MSc. 2 years working in ecological consultancy

