



Reptile Survey and Mitigation Report for:-

Land at Tyn Y Caeau, Margam, Port Talbot. SA13 2NW

July 2022

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Summary

1. Introduction

2. Regulatory & Planning Framework

3. Habitat Description

4. Survey Methodology

5. Survey Results

6. Mitigation Measures

7. Enhancement

8. Conclusion

9. References

10. Appendices

Legal Disclaimer

Summary

I & G Ecological Consulting Ltd were commissioned to undertake a Reptile and Amphibian Survey on a proposed development site covering an area of approximately 1.4 hectares in size, located on the outskirts of the village of Margam near Port Talbot.

(See Figure 1 for Location). The land within the site boundary consists predominantly of Semi-improved grassland, Mature Native and non-native trees, House and outbuildings and associated garden planting, partially bounded by outgrown hedges/ tree lined boundaries.



Figure 1. Location of Site. Grid Ref: SS 79284 86418. Courtesy of Apple Maps ©

1. Introduction

1.1 I & G Ecological Consulting were commissioned by Evans Banks Planning (Agents acting on behalf of the client) to undertake a Reptile and Amphibian Survey in connection with a proposed planning application to develop the site for a Commercial Truck Stop development.

1.2 The land within the site boundary comprises of Semi-improved Pasture – former lawns, mature trees, buildings (with associated garden planting) bounded by hedgerows/tree-lines. The site is located immediately adjacent to the A48 at Margam, and is surrounded by a mixture of industrial processing plants; agricultural pasture and woodland.

1.3 This Report is being produced as part of a request by the Planning Inspectorate.

- 1.4 This report provides a summary of the reptile survey undertaken between May and July 2022 and includes recommendations on any ecological constraints/opportunities associated with development at the site.

2. Regulatory & Planning Framework

- 2.1 All terrestrial native reptiles are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are protected under Section 9 of the Act.
- 2.2 Reptiles are protected (under Section 9 of the Act), against intentional killing, injury and taking. The Act also prohibits selling, offering for sale, possessing or transporting for the purpose of sale or publishing advertisement to buy or sell.
- 2.3 Where any works would affect Reptile and Amphibian species, appropriate mitigation measures would be required to prevent killing or injury.
- 2.4 The legislation covers all life stages. Eggs, juveniles and adults are covered equally by the legislation.
- 2.5 Under the National Planning Policy Framework (NPPF April 2012), the presence of any Protected Species (which includes Common Toad and all reptile species) are a material planning consideration. The ODPM 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact within the Planning System, provide additional advice and support the NPPF.
- 2.6 Environment (Wales) act 2016. This Act has replaced the section 40 duty in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), in relation to Wales, and applies to those authorities that fell within the previous duty. It came into force in May 2016.
- 2.7 Section 6 of the Act places a duty on public authorities to ‘seek to maintain and enhance biodiversity’ so far as it is consistent with the proper exercise of those functions. Authorities will be required to report on the actions they are taking to improve biodiversity and promote ecosystem resilience. In so doing, public authorities must also seek to ‘*promote the resilience of ecosystems*’ this obligation is also highlighted within Policy 9 and outcome 10 of Future wales 2040 and within the Planning Policy 11th Edition. Local Strategies and policies also highlight the importance of resilient, diverse and connected ecosystems.
- 2.8 Section 7 of the Act places a duty on public authorities to take steps to maintain and enhance biodiversity. This section replaces the duty in section 42 of the NERC Act 2006. The Section 7 Priority Species under this act is a list of the living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. The Section 7 Priority Habitats is a list of the habitats of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales.

3. Habitat Description

3.1 The site comprises of a former dwelling and outbuildings, within a single parcel of grassland. Habitats recorded within red line boundary were as follows: -

3.1.1 Semi-improved Grassland

Much of the site is comprised of Semi-improved Grassland, which appears to be managed by mowing. Dominant species of grass include Cock's-foot, Creeping Bent, False Oat and Yorkshire Fog with forbs including Meadow Buttercup, Broadleaved plantain, Common Knapweed. Aerial images (Google) show that this part of the field is managed by mowing.

The field margins contain species associated with woodland edge and hedgerows including Hedge Woundwort, Herb Robert, Lesser Celandine and Cuckoo Pint, with large patches of Winter Heliotrope (Non-native Invasive) in several locations.

3.1.2 Boundary Features (Hedgerow/stone walls/Tree-lines)

The site is virtually bounded by outgrown hedgerows. The southern boundary is essentially a gappy hedge dominated by Hawthorn with occasional Ash, Holly and Elder. The eastern boundary along the roadside consists of a row of unmanaged native trees. North and western boundaries include stone walls in poor condition. There are also scattered mature trees following the line of the access track in the northern section of the site.

3.1.3 Garden

The rear and side garden of the property are overgrown with dense Bramble but garden shrubs such as Magnolia and Apple/Crab Apple, trees including Pine and Ash saplings, and other planting are still evident.

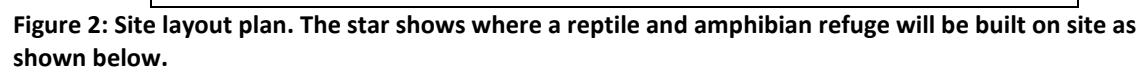
3.2 A site inspection in May 2022 revealed that the site has not been regularly cut/managed or otherwise maintained for a number of years.

3.3 Scrub and brash encroachment is irregularly managed.

3.4 The site possessed a number of features suitable for reptile habitation

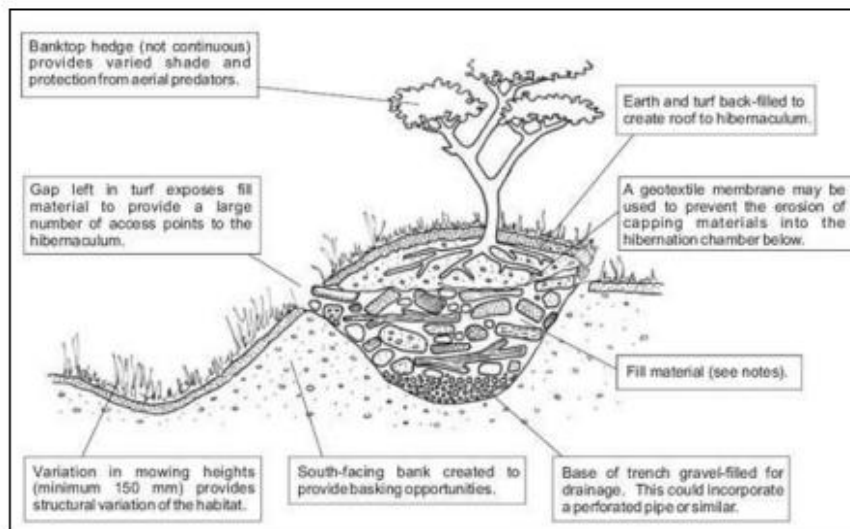
3.4.1 Features include:

- Bramble scrub
- Tussocky grassland
- Occasional litter which may serve as refugia.
- Woodland edge



Details of suitable hibernacula design

The preferred hibernacula design where ground conditions allow



Impermeable / flat ground (where flooding is likely)

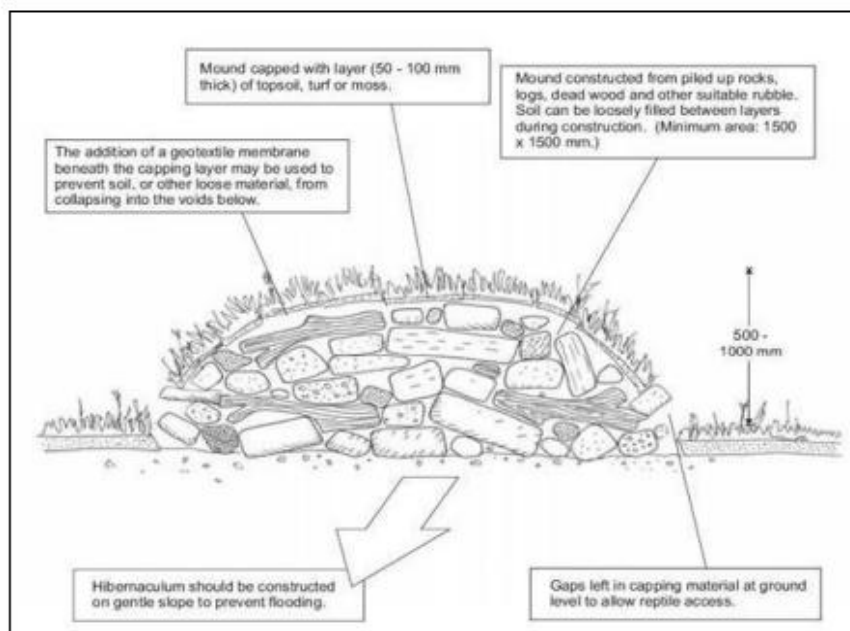


Figure 3: The turf covering also has a space at the base to allow entry and egress for aphibians and reptiles. This location is less liable to distrubance and is near to water sources and the site buffer

4. Survey Methodology

4.1 The impact of the proposed development is considered to be high as it constitutes habitat destruction and removal as well as the potential for direct killing, therefore a Presence/absence survey, together with a Population Size Class estimate was considered the most appropriate and effective survey. This survey methodology has been based on the Natural England Technical Information Note TIN102 - Reptile

Mitigation Guidelines (2011). A Presence/Absence survey being the initial approach, together with a Population Size Class Assessment.

- 4.2 Direct Observation Survey (DOS), existing refuge survey, and Artificial Refuge Survey (ARS) were carried out during each visit.
- 4.3 DOS involved walking slowly around the site and watching for moving or basking reptiles, particularly around stone walls, debris such as fallen wood and areas of shorter grass. Existing refuge survey was carried out by lifting items such as tiles, concrete slabs and discarded waste items.
- 4.4 ARS Standard methodology involved the deployment and subsequent checking of artificial refugia (0.5 x 0.5 m squares of mineral felt roofing material). A total of 40 refugia were deployed on 1st May 2021, within potentially suitable habitat, the majority being around the periphery of the site, set within the grassland/scrub beyond the extent of the bramble encroachment at approximately 3-5m.

5. Survey Results

- 5.1 A total of 10 visits were made during optimal conditions (suitable temperature, dry, with little or no breeze) between the 10th May and 30th June 2022. The only species to be seen during the surveys were Common lizard (*Zootoca vivipara*) a common toad (*Bufo bufo*), common frog (*Rana temporaria*) and Slow Worm (*Anguis fragilis*) the maximum seen in any one visit being 3 (**2 x common lizards and 1 Slow Worm**). See Appendix 1 for table of results.
- 5.2 No reptiles were seen during any of the Direct Observation Surveys or Existing Refuge Surveys.
- 5.3 Using the Survey Counts, the Population Size Class was assessed as Small (less than 5).

6. Mitigation Measures

- 6.1 Mitigation measures are required to ensure that reptiles on site are protected during the development phase from killing, injury and capture within suitable terrestrial habitats within the site. In the absence of mitigation, reptiles could possibly be trapped within excavations and subsequently killed when they are filled, or utilise spoil piles for refuge and hibernation purposes and subsequently be injured or killed. Mitigation for loss of habitat will be covered under Enhancement at point 7.
- 6.2. The low population size Class (less than 5) suggests that very few reptiles may be inhabiting the site, and therefore, very few are likely to be at risk. The recommended mitigation measures will therefore proportionately reflect this.
- 6.3. **Habitat Manipulation - It is recommended that** a gradual and stepwise reduction in potential reptile habitat to commence before site works start in order to encourage natural reptile dispersion from the site. Removal of any artificial refugia will go some way to reducing site potential.
- 6.4 Reduction in reptile habitat must only take place between March-October, generally understood to be the period when reptiles are active. However, the work must only

be carried out on days which are suitable (i.e. suitable temperature (12°C plus), dry, no wind) and so the on-call ecologist is best placed to determine if the conditions are optimal.

- 6.5.** Firstly, all potential reptile refugia currently on site are to be carefully removed by hand e.g. brash piles, discarded materials/rubbish etc
- 6.6** The above step is followed by a gradual reduction of grassland area (one third of the area at a time), in a direction (potentially North Westerly, to be agreed) as follows:
- Reduce (using handheld machinery) height of vegetation to 30 cm. Remove arisings.
 - Leave undisturbed for 4-5 days.
 - Further reduce height of vegetation- to ground level.
 - Repeat for each third of the grassland area.
 - Maintain grassland at ground level height via regular cutting/strimming or chemical treatment.
 - Always remove all cuttings ('arisings') from the site - to prevent them becoming further reptile refugia unless directed to store them in an area of retained habitat as part of mitigation.
- 6.7** All potential refugia must be removed, and grassland reduced to ground level, prior to commencement of any demolition or ground works (including investigative bore holes).
- 6.8** Once removal of refugia and reduction of grassland is complete, and prior to construction works commencing, a suitably qualified ecologist must visit the site in order to check that the habitat manipulation has been undertaken satisfactorily.
- 6.9** Temporary Reptile and Amphibian Exclusion fencing will then be erected around the areas of grassland that are to remain for reptiles (to be agreed and marked on site layout plan) which will protect the area from machinery and provide a safe area for reptiles to be moved to. (See 6.10 and 6.12)
- 6.10** A destructive search of the site, in the presence of an ecologist, will then be undertaken. The first few centimeters of undisturbed areas of ground will be scraped up with the ecologist present to rescue any individual reptiles found. This will be undertaken during periods of warm and dry weather (when reptiles are likely to be active).
- 6.11** A toolbox talk will be provided to all construction workers.
- 6.12** Any reptile found during the works shall be carefully relocated to suitable habitat retained within the site (see star on site plan in figure 4 above) utilising suitable container and suitably experienced personnel. The container will comprise good ventilation, a secure lid and plenty of dry bulky vegetation such as hay. Best practice

methods will be used as outlined within the Herpetofauna Workers Manual (JNCC, 2003).

- 6.13** In the unlikely event that Great Crested newt (*Triturus cristatus*) are found or suspected, all works will stop immediately, and the acting ecologist contacted for advice.

7. Enhancement

7.1 Post-construction enhancement measures for the site will include:

- ☐ Creation of reptile and amphibian refugia and hibernacula – log, rock and turf pile (See figure 5 above).
- ☐ A buffer zone around the site of unmanaged grassland and suitable amphibian and reptile refugia and hibernacula.
- ☐ Suitable "open" type fencing such as chain-link or close-board but with gap underneath which will allow free-movement of reptiles and other animals between retained habitat and existing adjacent habitat and the wider environs.

8. Conclusion

- 8.1 The mitigation at the site has been designed following best practice measures but will need to be finalised and agreed with LPA Ecologist.** It is considered that any suitable reptile habitats within the site are locally common, and in view of it becoming less favourable, any loss is considered negligible (in respect of Reptiles & Amphibians). During the initial preparation and subsequent development of the site, any reptiles/amphibians found will be relocated to suitable retained habitat within the site. Suitable fencing will ensure that retained habitat remains connected to adjacent land and there will be no fragmentation effects upon any displaced reptiles.

A dedicated reptile / amphibian refuge is to be created as part of the development and site enhancement and to mitigate for the loss of shelter afforded at present by some of the scrub and grassland.

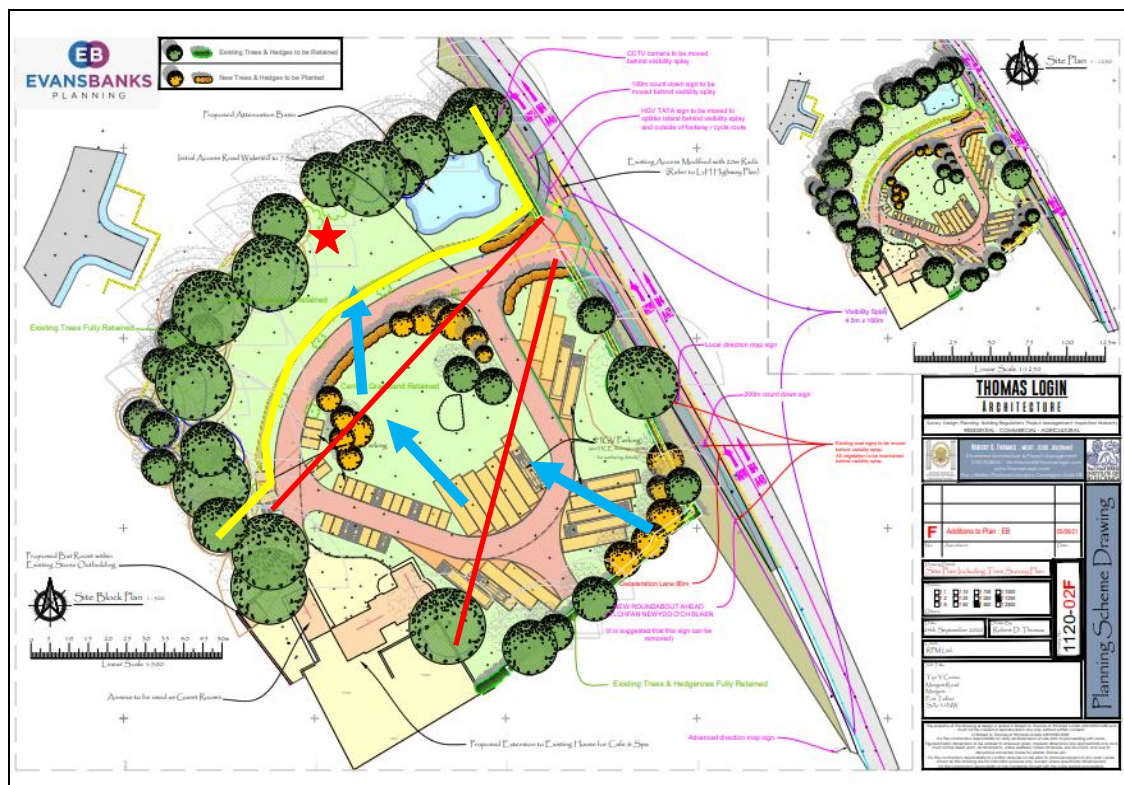


Figure 4: shows the planned habitat manipulation. The red lines split the site into 3 areas, working from the furthest easterly point the site will be manipulated as set out in 6.3. The blue arrows show the direction of work. The yellow line shows the location of the temporary reptile fence. The red star shows the location of the artificial refugia.

9. References

Beebee, T. C, & Griffiths, R A. (2000). Amphibians and Reptiles. A Natural History of the British Herpetofauna.

Foster, J. (2011). Natural England Technical Information Note TIN102. Reptile mitigation guidelines.

Gent, Tony & Gibson, Steve. 2012. Herpetofauna Workers' Manual

Herpetofauna Groups of Britain and Ireland. Evaluating Local Mitigation/Translocation Programmes : Maintaining best practice and lawful standards.

The Conservation of Habitats and Species Regulations 2010 (as amended)

The Wildlife & Countryside Act 1981 (as amended)

The National Planning Policy Framework, 2012 (NPPF)

APPENDIX 1 Table of Survey Results

Visit Number	1	2	3	4	5	6	7	8	9	10
Date	10-May	18-May	30-May	03-Jun	12-Jun	15-Jun	21-Jun	28-Jun	06-Jul	11-Jul
Conditions	16.7 C. Bright. 1-2 mph breeze	16.2 C, no breeze. No rain	17.4 C, Bright. No rain. No breeze.	20.0 C, no breeze. No rain	18.0 C, no breeze. No rain	17.7 C, light breeze. No rain	19.0 C, light breeze Overcast No rain	18.7 C, no breeze. No rain	19.5 C, no breeze. No rain	19.2 C, no breeze No rain
Sheet Number										
1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	Toad	0	0
10	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0
18	0	0	Lizard x 2	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0
22	0	0	Slow Worm	0	0	0	0	0	Frog	0
23	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0

30	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0
33	0	0	0	0	0	0	0	0	0	0
34	0	0	0	0	0	0	0	0	0	0
35	0	0	0	0	0	Lizard A + J	0	0	0	0
36	0	0	0	0	0	0	0	0	0	0
37	0	0	0	0	0	0	0	0	0	0
38	0	0	0	0	0	0	0	0	0	0
39	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0

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