



Reptile Mitigation - Method Statement:

Land at Wild Rose Cottage

Dyffryn Lane

St. Nicholas

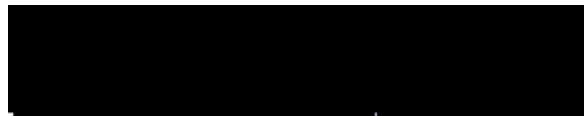
Vale of Glamorgan

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Contact:

Glyn Lloyd-Jones

Office



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Legal Disclaimer

Summary

I & G Ecological Consulting were commissioned to undertake an ecological appraisal for an area of land of approximately 0.675 ha at Wild Rose Cottage, St. Nicholas, in the Vale of Glamorgan. Proposals are for the development of two rental cabins, 4 pods, a camping area and associated infrastructure.

The land within the site boundary consists predominantly of tall ruderal herbs, semi-improved grassland, hedgerows, scrub and watercourse.

Given the varied habitat and the south facing aspect of some areas, the site has reptile potential.

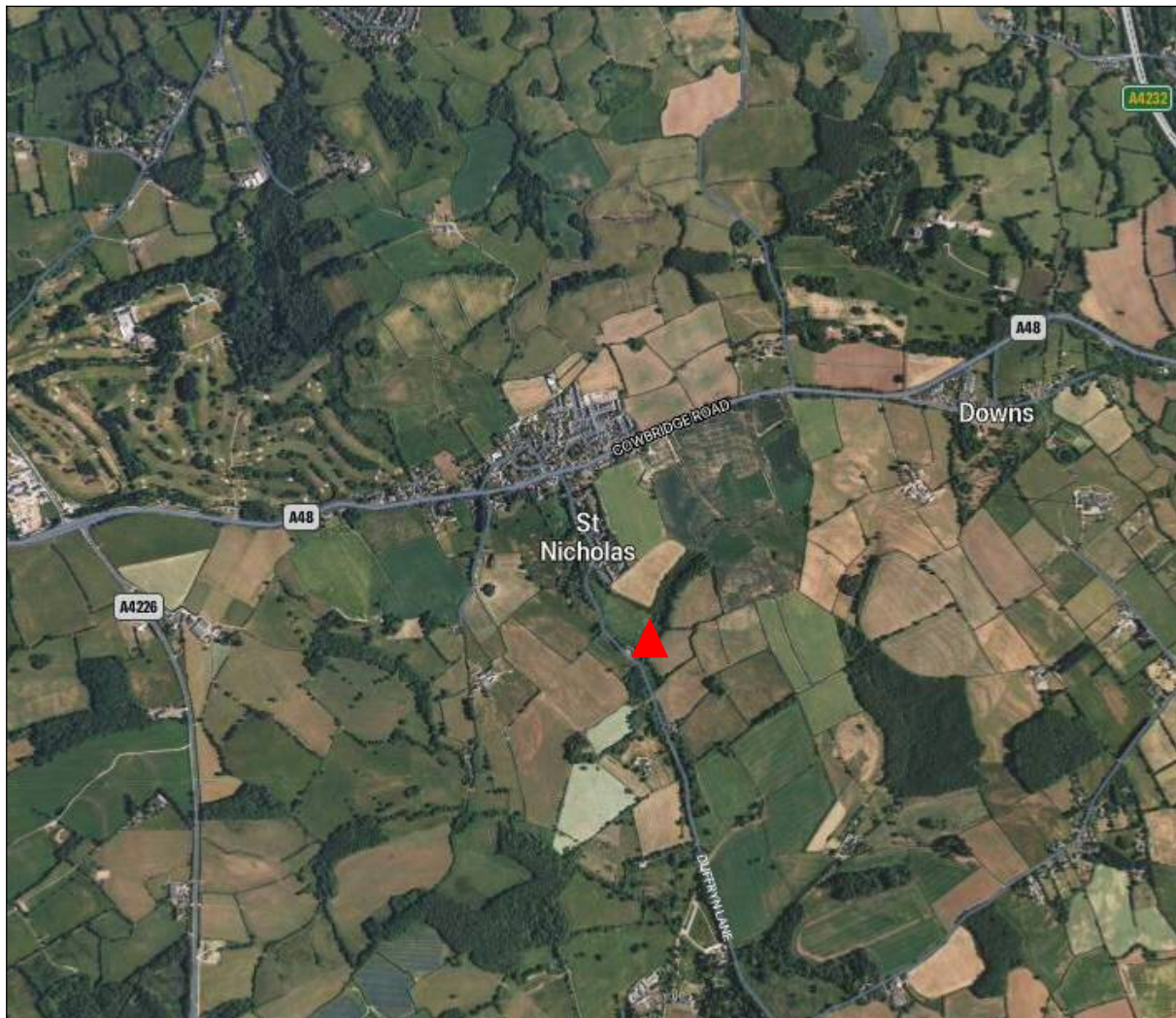


Figure 1. Location of site Grid Ref: ST 09253 74081

1. INTRODUCTION

- 1.1** I & G Ecological Consulting Ltd were commissioned to produce a Reptile Mitigation Method Statement in connection with a planning application to develop an area of land to camping/glamping provision, following submission of the Preliminary Ecological Appraisal Report by I&G Ecological Consulting Ltd in January 2022.
- 1.2** The land within the red line site boundary (Fig. 2) consists predominantly of tall ruderal herbs, semi-improved grassland, hedgerows, scrub and a small watercourse.



Fig 2. Area of Land surveyed for PEA in January 2022

- 1.3** This Method Statement is being produced following recommendations set out in the PEA dated January 2022. It is based on the site area as it was at the time of PEA survey, (Fig. 2).
- 1.4** No reptile surveys have been undertaken and it is not known whether reptiles are present or absent. However, given the quality of habitat available on and immediately adjacent to the site, it is predicted that if reptiles are present, only low to moderate numbers would be expected. Therefore, it is considered suitable to go straight to a Method Statement to prevent killing and or injury to any reptile during

the construction phase. The construction works are to be carried out assuming that reptiles may be present, hence with appropriate mitigation measures implemented.

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.

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. In so doing, public authorities must also seek to ‘promote the resilience of ecosystems’. Under Section 6 public authorities will be required to report on the actions they are taking to improve biodiversity and promote ecosystem resilience.

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

The PEA details the habitats on site as:

Habitats recorded within red line boundary were as follows:-

3.1 Semi-Improved grassland

- 3.1.1 The main body of the site is species poor semi-improved grassland and tall ruderal herbs. The grassland is dominated by Yorkshire fog, with bents and cocksfoot. Visible herbs include abundant creeping buttercup, with dock, common knapweed, plantain, thistle, ragwort & sorrel. (TN1; Fig. 3).



Fig. 3

3.2 Stream

- 3.2.1 The stream is narrow, uniform and fast flowing. The bed appears to be mainly grasses and buttercup indicating the stream is seasonal in nature (TN2; Fig. 4). The lower section of the stream is channelized and reinforced (Fig. 11).



Fig. 4

3.3 Tall Ruderal

3.3.1 Tall ruderal vegetation has colonised a high proportion of the grassland, with greater and hoary willowherb, ragwort, nettle and patches of meadowsweet (TN3; Fig. 3).

3.4 Scrub

3.4.1 Areas of blackthorn and bramble scrub have colonised from the hedgelines (TN4&5; Fig. 5&8).



Fig. 5

3.5 Scattered broadleaf

3.5.1 The bramble scrub along a section adjacent to the eastern hedgerow has been cut back in the past allowing a woodland edge type flora to develop. Plants include red campion, herb Robert, primrose, foxglove and dog's mercury with scattered hazel and elder, and a good covering of ferns including hart's tongue and scaly male fern (TN6; Fig. 6).



Fig. 6

3.6 Bare ground

- 3.6.1 An area in the lower section of the property has been cleared of vegetation (TN7; Fig. 7). The owner informs that a number of hazardous fir trees were removed from this section.



Fig. 7

3.7 Hedgerow

- 3.7.1 The boundary hedge occupies a sloping bank to the west, and is dominated by outgrown hazel with occasional holly, hawthorn & blackthorn (TN8; Fig. 4&5). Suckering blackthorn scrub has developed beyond the canopy. Ivy is abundant within the hedgerow, with dog's mercury, lords and ladies and foxglove. Ferns include hart's tongue and common male fern



Fig. 8

- 3.7.2 The northern hedge sits on a bank and separates the field from restored ancient woodland beyond (TN9). Hawthorn, blackthorn and hazel are the main structural elements, and the blackthorn is colonising the field to the NE (TN4)
- 3.7.3 The boundary hedge occupies a sloping bank to the east, and is dominated by outgrown hazel with mature ash trees, some of which are showing signs of ash die-back (TN10; Fig. 9).



Fig. 9

- 3.7.4 A short section of the road hedge lies within the boundary of the site. This has a mixture of woody species including hazel, sycamore, blackthorn, dogwood and bramble, but is in poor condition (TN11; Fig. 10).



Fig. 10

3.8 Buildings & Yard

- 3.8.1 The south-west corner of the plot is dominated by a series of buildings, an open fronted corrugated barn and shipping containers, with an overgrown concrete yard area (TN12; Fig. 11).



Fig. 11

- 3.9 The site possesses a number of features suitable for reptiles.

The vegetation cover is of mixed height, density and structure, and the range of habitats (scrub, grassland, hedgerow and tall ruderal) give the site the structural complexity that reptiles require to provide suitable ecotone areas for basking, cover and breeding. The site slopes to the south west, some areas are shaded from the tall hedgerows and trees, but others are open and sunny with the potential to support reptiles, especially slow worm and common lizard. The interface between habitat types are likely to provide most reptile interest.



Fig. 12

3.9 Reptile Habitat Requirements

Viviparous lizards occupy a wide range of habitats, including most types of grassland (especially rough grassland with bramble scrub), woodland glades and rides and hedgerows. Intensively farmed land, dense woodland, heavily grazed or mown habitats and many urban areas are unsuitable. This is because they are structurally deficient or lacking invertebrate prey. The species avoids structurally uniform vegetation, whether it is rank and completely closed or short and completely open. Typically, the viviparous lizard differs from the other widespread lizard species, the slowworm, in preferring sites with a greater variation in the height of vegetation cover. Both humid and dry microhabitats are selected by viviparous lizards but the highest densities tend to be found in damp or wet areas, especially where abundant grass tussocks are present to provide food, shelter, basking and hibernation sites. However, as long as the vegetation

is located in a sunny area, is structurally diverse and provides adequate cover, viviparous lizards can attain high population densities

Slow-worms inhabit a wide range of habitats, including most types of grassland (especially rough grassland with bramble scrub), woodland glades and rides and hedgerows. As long as sufficient warmth, cover and food is available, they can be found in urban areas, for example in gardens and allotments, where they often inhabit compost heaps/bins. Slow-worms have a broader range of habitats than the other lizards, tolerating a less diverse vegetation structure and often being found on impermeable as well as free-draining soils. In all habitats, slow-worms require dense vegetation, especially grasses coupled with sunny areas to allow thermoregulation and, preferably, loose soil into which to burrow. Very wet and very dry habitats are usually avoided.

Grass snake are a lowland species, found widely across England and Wales. This species is often associated with wetlands, but can also be found in many other habitats such as many types of grassland, open woodlands, farmland, gardens (especially large gardens with ponds), and allotments. The grass snake requires some cover and a degree of structural diversity but, as it is more mobile than the other reptiles, it is often not reliant on a single site providing the necessary habitat for hibernation, feeding and egg-laying. Sunny areas are usually preferred, but during hot weather it is not uncommon to encounter grass snakes in woodland and other shaded habitats. Warm, humid, decomposing organic material is required for egg-laying

Adder prefer lighter chalk or sandy soils, and are almost never found in habitats based solely on heavy clays. Favoured habitats include grassland with a dense sward and low scrub, clearings, rides and edges in deciduous or coniferous woodland, field edges. The adder tends not to be found in intensive agriculture or urban areas. In all suitable habitats, dry, open, sunny areas with adjacent dense ground cover are essential. Hibernation sites tend to be on south-facing slopes; tree root systems, crevices in banks, and voids in piled materials are often used. Wetter areas around ponds are also used (especially in the summer) providing there are dry banks or grass tussocks for basking.

4. Mitigation measures and survey methodology

- 4.1** Mitigation measures are required to ensure that any reptiles (if present) 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.
- 4.2. The medium reptile potential of the site suggests that small numbers of reptiles are likely to be present, and therefore the risk of significant impact is low. Slow worm are the most likely residents, but the presence of adder, grass snake and viviparous lizard cannot be ruled out. The recommended mitigation measures will therefore reflect this. The area with reptile potential is marked on Fig. 13 & 14.**
- 4.3** A large area has been identified for retention as a Reptile Mitigation & Receptor Area (Fig. 15). Before the site clearance commences, this area will be made known to all operatives and marked as such on the ground (cordoned off with Heras Fencing or similar barrier which is still permeable to reptiles). Any piles of debris or scrub in this area should be retained as habitat.
- 4.4** An artificial hibernaculum will be created in the receptor site prior to commencement of clearance. See section 4.15, Fig. 15 and Appendix for further details.
- 4.5** A gradual and stepwise reduction in potential reptile habitat to commence imminently in order to encourage natural reptile dispersion from the site. (See Fig. 15 for direction of cut). **The existing hedgerows should be laid in a traditional manner to reduce shading of adjacent habitats with reptile potential.**
- 4.6** Reduction in reptile habitat must only take place between March-October, when reptiles are active. This will allow them to relocate successfully.
- 4.7** All potential reptile refugia, currently on site, to be carefully removed by hand (e.g. stones, brick piles, brash piles etc.)
- 4.8** Gradual reduction of grassland and scrub vegetation.

Cut one third of the area at a time, as follows:

- Reduce (using handheld machinery) height of vegetation to 30 cm.
- Leave undisturbed for 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/stripping or chemical treatment.
- Always remove all cuttings ('arising') from the site - to prevent them becoming reptile refugia.



Fig. 13

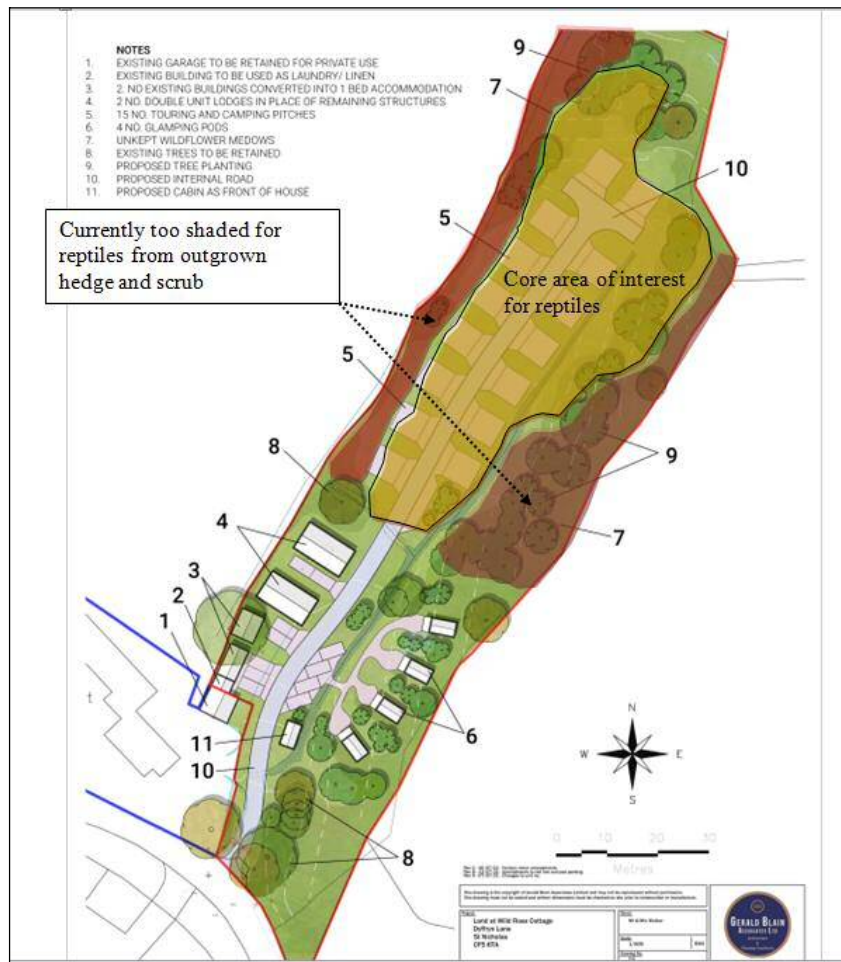


Fig. 14

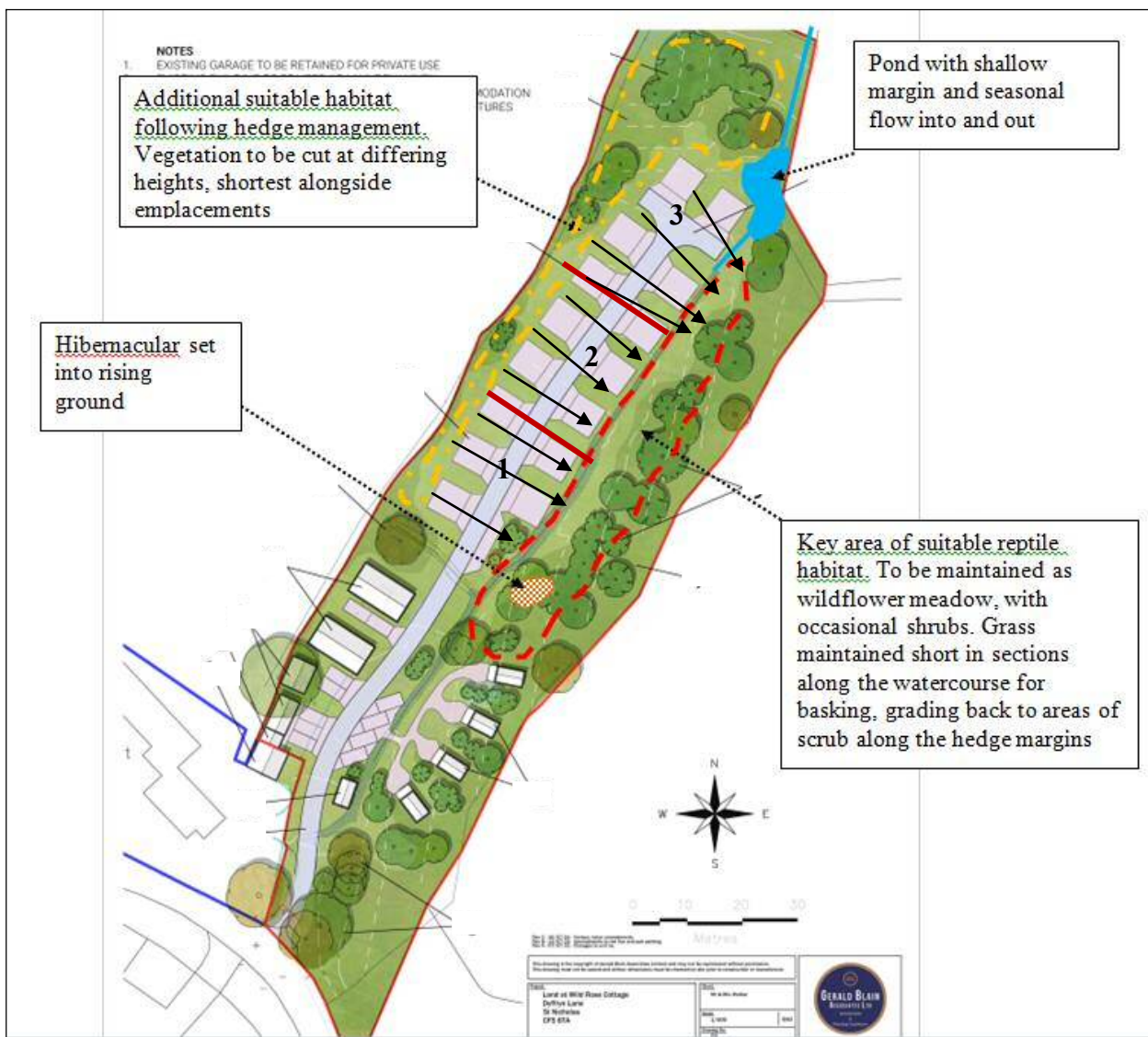
4.9 All potential refugia must be removed, and grassland reduced to ground level, prior to commencement of any demolition or ground works (including investigative bore holes).

- Woody vegetation, such as Ivy, growing at the base of walls or other features which are to be removed, should be cut by hand and carefully removed (as part of the steps taken at 4.6). Always remove all cuttings ('arising') from the site - to prevent them becoming reptile refugia.
- Piles of stone, bricks and other material should be dismantled by hand, and removed from site, and an amount retained in bags/container for use in artificial hibernaculum creation.

4.10 Once removal of refugia and reduction of vegetation is complete, and prior to construction works commencing, the Receptor Area will be protected by Reptile Exclusion Fencing (Fig 15).

4.11 A suitably qualified ecologist must then visit the site in order to establish whether the mitigation was successful, and that no reptiles will be at risk from the subsequent construction works.

- 4.12** If the ecologist is dissatisfied, further mitigation methods will be enforced before construction can commence. Such methods may include erection of further temporary exclusion fencing and use of artificial refugia to clear the site of potential resident reptiles; sufficient refugia scattered over site are left for a period of 2 weeks before being checked by Ecologist with any animals removed to receptor site (as 4.13), and the refugia checked daily until 3 clear days with no animals found.
- 4.13** 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).
- 4.14** A toolbox talk will be provided to all construction workers.
- 4.15** Any reptile found during the works shall be carefully relocated to the retained translocation area, utilising an appropriate 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).



4.16 Reptile habitat:

The area on the Plan (see Fig.15) is to be set aside for reptiles, which are presumed to be present. Slow worm are the most likely species given the surrounding habitat. The site requires some modification and periodic maintenance to act as a suitable reptile receptor area during construction phase and it should continue to function as such during operational phase.

The aim is to create a mix of vegetation heights and a variety of substrates including grassland and bare ground, to provide feeding, shelter and hibernation opportunities.

The following points should be followed:

- Before any work starts on site, the designated receptor area should be marked out with suitable hi-vis tape or similar so that the area is not disturbed or inadvertently cleared.
- The hibernaculum should be built as per Fig. 16 on a slight slope with a sunny aspect, where possible.
- Any vegetation around the hibernaculum should be left (creating a 2m buffer which remains undisturbed).
- Any grassland areas should be left intact, and not tracked over or otherwise disturbed.
- An amount of Bramble scrub should be left to develop, perhaps up to 30% , which will provide shelter and shade, however, if significant amounts of scrub cover are allowed to develop, this will create too much shade and will eventually become a homogenous area lacking the structural diversity that reptiles require.

4.17 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.

4.18 Post-development enhancement measures for the site will include:

- Creation of reptile and amphibian refugia and hibernacula – log, rock and turf pile (See Fig. 15 for location and Appendix for details of construction).
- A 2m buffer zone around hibernacula of unmanaged vegetation.

4.19 Management of the retained receptor area will consist of periodic reduction in scrub and grassland/other vegetation to retain a mosaic of micro-habitats, e.g. bare areas, low vegetation, dense cover (suggest every 2-5yrs). Arisings can be left in piles within the receptor area to create further habitat. The timing of such works must take into consideration nesting birds and hibernating reptiles, therefore should ideally be undertaken between August and September.

5. Conclusion

5.1 The development of the land as a glamping site presents opportunities for the management of the wider habitat in a sensitive manner to encourage reptile and amphibian populations to develop on site. There are also opportunities for education and engagement about reptiles and amphibians with people staying on the site. The mitigation at the site has been designed following best practice measures. It is considered that any suitable reptile habitats within the site are locally common, and in view of them becoming less favorable without intervention and management, any loss is considered negligible. During the initial development of the site any reptiles, if present, will be relocated to the receptor site. There will be no fragmentation effects upon any displaced reptiles.

6. References

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

Edgar, P., Foster, J. and Baker, J. (2010). Reptile Habitat Management Handbook. Amphibian and Reptile Conservation, Bournemouth.

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)

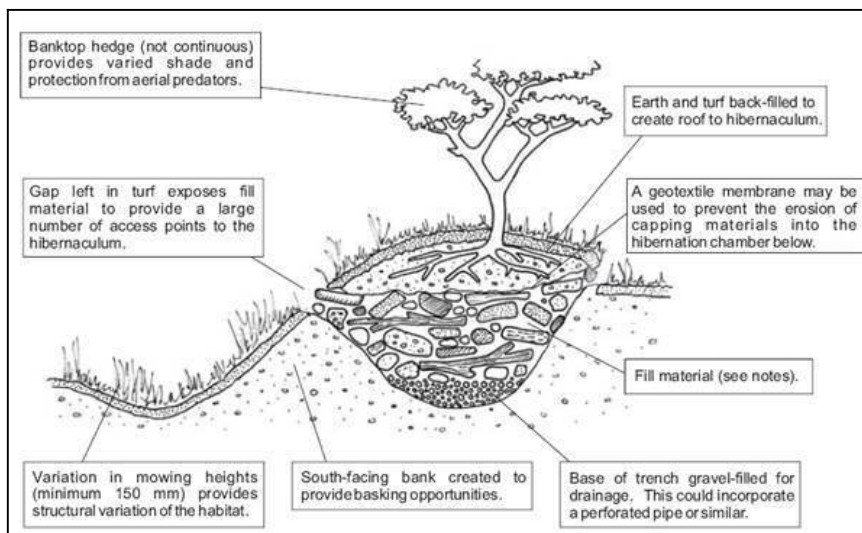
The Wildlife & Countryside Act 1981 (as amended)

The National Planning Policy Framework, 2012 (NPPF)

7. Appendix

Details of suitable hibernacula design

The preferred hibernacula design where ground conditions allow



Impermeable / flat ground (where flooding is likely)

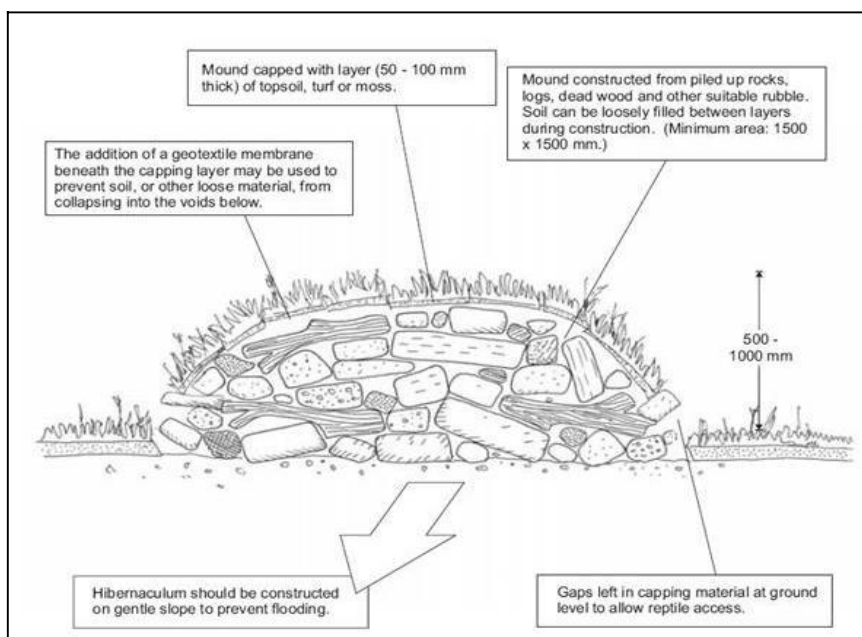


Figure 16: An example of a suitable hibernaculum for the use of hibernating reptiles to be employed within the 2m buffer zone.

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Advice in this report is based on the judgement of I&G Ecological Consulting and the interpretation of data gathered during the course of their survey on the property named in this document.

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