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Reptile Assessment

For Cheriton Parc, Folkestone, Kent.

Report for: Mulberry Tree Holdings

Date: August 2022

Our Ref: KECT18 8AN

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Date	August 2022
Version	Final

About Us

Bakerwell Limited has two offices serving the south and east of the UK, led by directors Fiona Baker and Donna Popplewell. The Directors have collectively 22 years' experience in the ecological consultancy industry, hold relevant degrees, are qualified botanists, and are trained in the use of biodiversity metrics to calculate no net loss/gain.

All staff are members, or training to be members, of the professional body for the environmental industry, the Chartered Institute of Ecology and Environmental Management (CIEEM) and hold Natural England European protected species licences for great crested newts, bats and dormice. Bakerwell Limited has SMAS Worksafe Health and Safety Accreditation; all staff hold relevant CSCS cards.

Bakerwell Limited is a consultancy specialising in ecological planning advice and surveys. Bakerwell also work in collaboration with trusted associates to provide Landscape Architecture, Arboriculture and Energy assessments.

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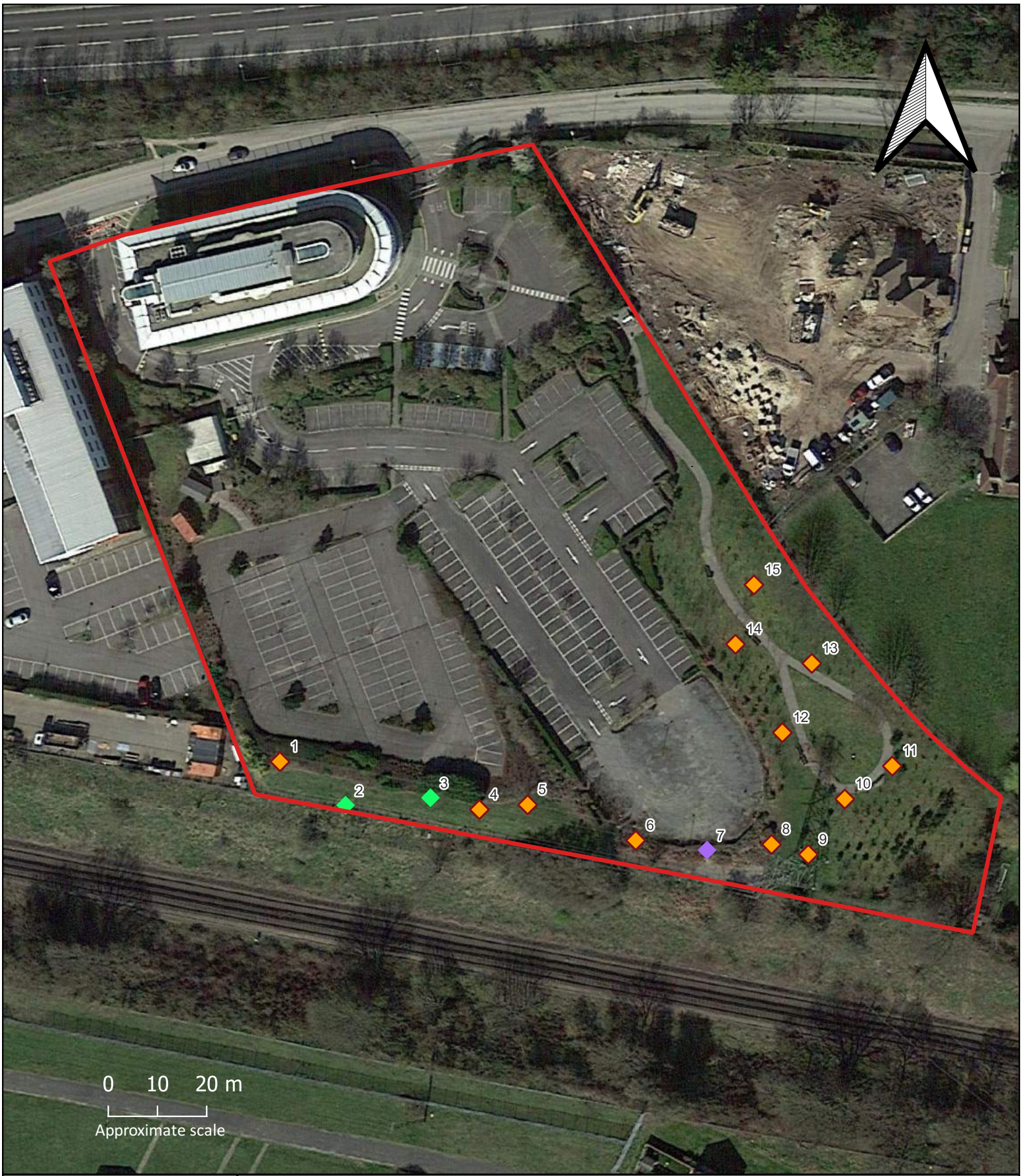

Figure 1 Reptile Survey Results

Site: Cherition Parc, Folkstone

Date: August 2022
Job: KECT18 8AN
Author/Reviewer: LP/DP

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Key

- Site Boundary
- No Reptiles
- Common Lizard
- Common Lizard and Slow worm

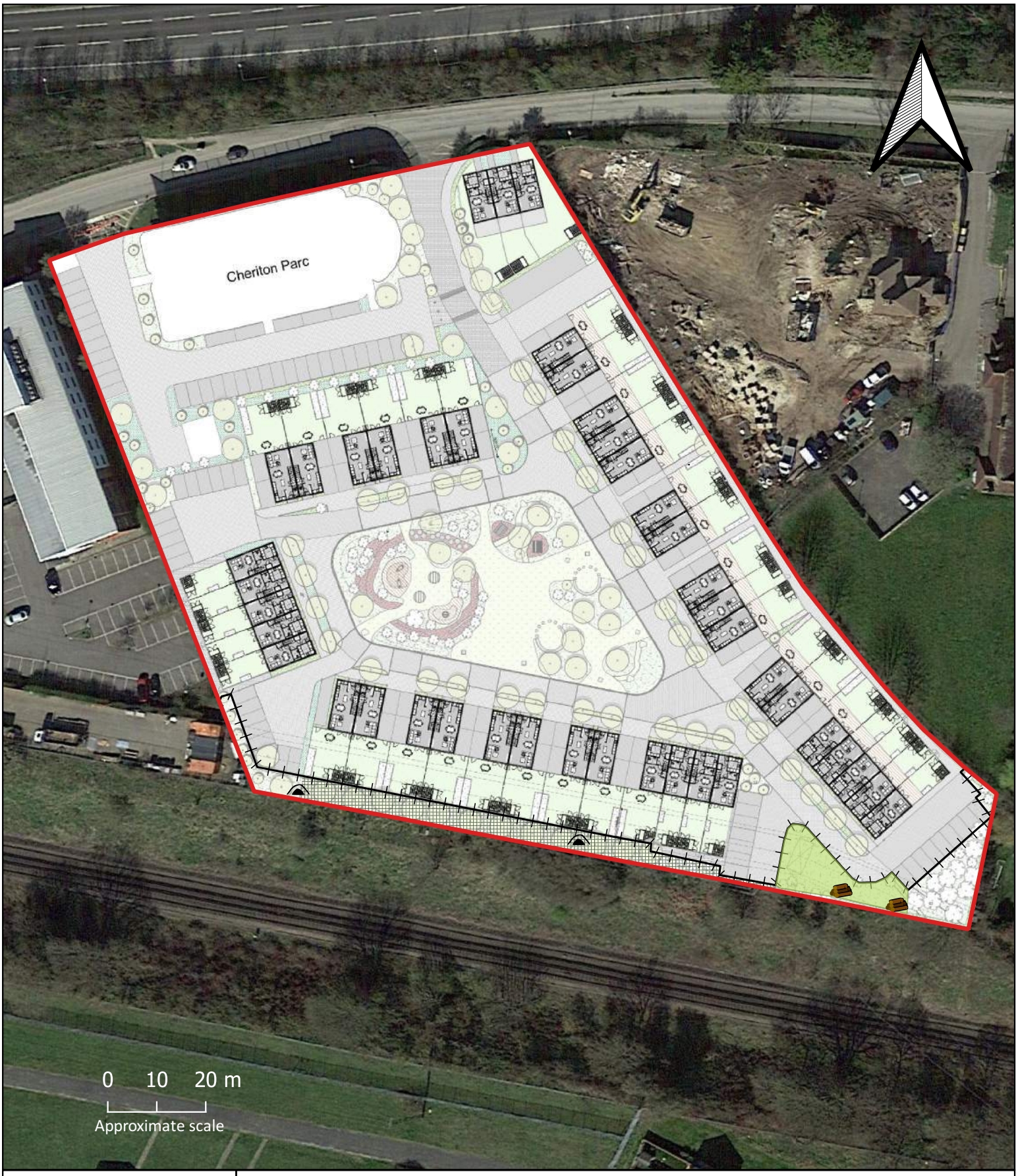

Figure 2 Reptile Mitigation and Enhancment Plan

Site: Cherition Parc, Folkstone

Date: August 2022
Job: KECT18 8AN
Author/Reviewer: LP/DP

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Key

- Site Boundary
- Reptile Fencing
- Log and Brash Pile
- Hibernaclua
- Native Mixed Scrub
- Retained Reptile AreaTussock Wildflower Mosaic

Introduction

1.1 Bakerwell Ltd were commissioned by Oliver Davis Homes to undertake reptile surveys of land at the following address: Cheriton Parc, Cheriton High Street, Folkestone, Kent. CT18 8AN (henceforth referred to as the site).

1.2 The proposed development site is located to the northwest of Cheriton. The central O.S. grid reference is: TR 18935 36911 The site is approximately 1.7ha and is located between the M20 motorway and Channel Tunnel railway to the north and the Folkestone to Ashford railway to the south, with MOD practice ranges and residential units beyond. Further industrial units are positioned to the west and a new housing development to the east.

1.3 The proposed development comprises 75 new residential properties and associated parking. The new properties are a mixture of new build and the conversion of an existing office building. The development will also include the creation of new open space and landscape planting.

1.4 Bakerwell Ltd undertook a Preliminary Ecological Assessment (Bakerwell Ltd, 2022) in March 2022, which identified suitable reptile habitat on site. Therefore, a presence/likely absence survey for reptiles was completed by Bakerwell during May and June 2022. This report details the survey methodology, the results of the surveys and provides guidance to avoid impacts to reptiles. This report should be read in conjunction with the PEA.

1.1 This report has been compiled to follow the British Standard 42020 Code of Practice for Planning and Development and the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Report Writing (2017).

1.2 Recommendations within this report aim to demonstrate the approved development will conserve and enhance biodiversity in accordance with Chapter 15 of National Planning Policy, Section 174.

2 Aims and Objectives

2.1 The aim of this assessment is to undertake a field-based survey of the proposed development site to assess whether reptiles are present on site on or in the immediate vicinity of the red line boundary. In the event reptiles are present to identify any likely direct or indirect effects of the proposed development to the on-site and/or off-site reptile population. The objectives of the surveys are to:

- Identify whether reptiles are present on or adjacent to the site
- Where reptiles are present to;
  - Identify the species present and where they are located on or off site
  - Obtain an indication of the numbers present
  - Identify any impact to reptiles present on or off site
  - Provide outline recommendations for mitigation and enhancements
- To provide the above in the context of legislation and local planning policy

3 Methodology

Reptile Survey

3.1 Bakerwell Ltd undertook a reptile presence/likely absence survey. A total of seven survey visits were undertaken between 24th May and 13th June 2022.

3.2 The presence/likely absence reptile survey methodology followed standard guidelines from Froglife (1999). Features such as long grass, ruderal habitats, banks, cracks, scrub edges and long vegetated edges of bare ground suitable for hibernation, basking, feeding and raising young were considered. Where these were present further survey to assess presence or likely absence was undertaken to inform the working methodology to avoid contravention of legislation regarding reptiles.

3.3 Searches were conducted at an appropriate time of day dependent on weather conditions (temperatures between 9-18°C) detailed in Table 1. The surveys were conducted during mild weather conditions, moderate wind (<5mph) and no heavy rain.

Table 1: Reptile Survey Weather Conditions

Date	Average Temp.	Wind	Cloud Cover	Rain
24/05/22	14	1	60%	None
27/05/22	17.5	2	50%	None
30/05/22	15	2	80%	None
01/06/22	12	1	10%	None
09/06/22	15.5	2	10%	None
10/06/22	18.5	2	10%	None
13/06/22	17	1	40%	None

3.4 Reptile refugia (roofing felt squares of at least 0.5 m^2) were positioned throughout the site within appropriate habitat for reptiles at a density of 10 or more per hectare, see Figure 1.

3.5 Roofing felt was used as refugia because it absorbs heat quickly and efficiently, even on cloudy days, providing suitable locations for reptiles to bask and warm up. Artificial refugia can therefore act as reptile 'magnets' attracting reptiles from the immediate vicinity. Corrugated metal tins were also used as they trap heat and can provide opportunities for reptiles to warm up whilst keeping themselves safe from obvious danger. Refugia were placed with particular emphasis in areas of highest potential. The usual unit of refugia is 10 per hectare (ha). A total of 15 refugia were placed across the site to capture all suitable habitat.

3.6 The refugia were left undisturbed for two weeks to allow reptiles to become familiar with their presence. On each survey visit the refugia were checked and visual searches of the surrounding habitat were made, full survey results are shown in Appendix 2.

3.7 Where reptiles are found the maximum count of adults found on a single survey (the peak count) can be used to estimate population size. This is based on an extended survey with an additional 13 visits (Froglife, 1999). However, where presence/likely absence surveys reveal a very low number of reptiles, additional visits may not be a proportionate approach, where they are unlikely to significantly change the results.

3.8 The maximum count of adults found on a single survey (the peak count) is used to estimate population size. The Froglife survey methodology is based on 10 refugia per hectare (ha), where more are used to ensure coverage of good quality habitat, the following adjustment is made to account for the increase in survey effort. 10 x (ha) / (refugia) x (peak number of reptiles) = the peak number per ha (this must be carried out for each species present). The result is then compared with the table below to give a population size. HGBI (1998) criteria (Table 2) was used to estimate population size.

Table 2: Reptile Population Classes (HGBI, 1998)

Species	Adult Peak Count Per Hectare		
	Low Population	Medium Population	High Population
Adder	<2	2-4	>4
Grass Snake	<2	2-4	>4
Slow worm	<50	50-100	>100
Common Lizard	<20	20-80	>80

3.9 The Key Reptile Site Register is designed to allow the safeguard of important reptile sites. Based on Froglife (1999) criteria, it can provide an objective evaluation of the importance of the reptile populations on a site. To qualify for the Key Reptile Site Register the site must either a) support three or more reptile species; b) support two snake species; c) support an exceptional population of one species, d) support an assemblage of species scoring four or more according to Froglife (1999); e) be of particular importance due to local rarity e.g. in Kent a good or exceptional population of adder, based on Froglife (1999). The Kent Reptile and Amphibian Group (KRAG) include sites with sand lizards or with a good population of adders.

Ecological Impact

3.10 Ecological Impact Assessment (EcIA) is most formally used to provide the ecological component of an Environmental Impact Assessment (EIA) required under EIA Regulations. The alternative use of assessing the impact of a proposal on ecology as used for the purposes of this report, is to demonstrate the proposed development accords with relevant planning policy and legislation. This approach is recommended by BS42020. 3.6. The impact assessment identifies, quantifies and evaluates likely significant effects on habitats and species. In this instance reptiles were the only species given consideration as part of this assessment.

3.11 The methodology used in this assessment broadly follows guidelines in CIEEM (2018). Ecological features are classified in terms of importance at a geographic scale (Appendix 1). Evaluation of impacts follows the mitigation hierarchy of avoiding impacts, mitigating unavoidable impacts, compensating for the remaining significant residual effects and seeking enhancements for biodiversity.

4 Limitations

4.1 The results of surveys detailed within this report provide evidence of the presence of reptile, or the potential for such species, evident at the time of the survey. The results of the survey can only indicate the presence (or potential for such presence) evident at the time of the survey.

4.2 Due to the transient nature of reptile and their habitats, the results of this survey are considered to be valid for 18 months from completion of the survey (CIEEM, 2019), unless there is sufficient justification to show otherwise, in line with best practice guidance.

4.3 Findings and recommendations within this report are based on the professional opinion of qualified and experienced ecologists and do not constitute professional legal advice.

5 Results and Discussion

5.1 Biodiversity, in particular protected species and habitats, is a material consideration of all planning applications. The National Planning Policy Framework (NPPF) was adopted in March 2012 (amended July 2021).

5.2 The NPPF requires that the local planning authority should aim to enhance biodiversity when determining planning applications, and opportunities to incorporate biodiversity in and around developments should be encouraged, especially where this can secure measurable net gains for the environment. Chapter 15 "Conserving and enhancing the natural environment", states that this should be achieved by:

"..minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.."

5.3 Within the site are limited areas of unmanaged improved grassland containing sections of tussocky vegetation with varying sward length. These areas are focused primarily to the southern and south-eastern boundaries.

5.4 A peak count of two adult slow worms and one common lizard were recorded to the southern boundary on site on the grassy bund and associated brash piles that are adjacent to the offsite railway line (Figure 1). This is likely to be an indication that reptiles dispersing along the railway line have colonised small areas of habitat on site, which have become suitable due to a lack of management on site over time. No other reptile or amphibian species were recorded during the surveys.

5.5 A total of 15 refugia were used; therefore the total peak adult count is divided by 10 per ha to achieve a score as described in the methodology. The population of both species is low when considered against HGBI (1998) criteria, see Table 3. This means that the Site does not reach the Key Reptile Site criteria as laid out by Froglife (1999). Full results can be found in Appendix 2.

Table 3: Population Size

Species	Peak Count/Adjusted for size and refugia number	Population Size
Slow Worm	2	0.6 (Low)
Common lizard	1	1.2 (Low)

Ecological Importance of Reptiles on Site

5.6 Reptiles are protected from killing and injury under the Wildlife and Countryside Act 1981 (as amended). Slow worms have a widespread distribution in Britain and are locally common in southeast England (Inns, 2009)

5.7 Common lizards are common and widespread and are found throughout Britain, there is concern that the species is in decline within the south of the country (Inns, 2009). The population found on site are low, therefore the importance of the population is considered of local (site) level.

5.8 Due to the presence of reptiles a precautionary methodology will be undertake during clearance of all suitable areas of vegetation, as detailed in Section 6. The retained open space to the southern boundary will be designed to allow retention of the existing reptile population on site. Providing the measures detailed in Section 6 are followed, the development will be compliant with legislation pertaining to reptiles.

6 Mitigation Measures

6.1 A low population of slow worm and common lizard were found to be utilising the limited areas of improved grassland to the south and south-eastern boundaries. Reptiles are protected from killing/injury in UK law; therefore, mitigation will be required to ensure the proposed development is compliant with legislation.

6.2 The presence of a very low number of slow worms (peak of two adults) and common lizard (peak of one adult), specifically along the southern boundary, is an indication that reptiles have relatively recently colonised the site from the adjacent railway line.

6.3 Therefore, habitat will be retained on site to the southern boundary where reptiles were recorded. To the south east section of the southern boundary a tussocky grassland area will be retained and used as a receptor to relocate reptiles to found during works.

6.4 The southwest area will also form part of the reptile habitat during and following construction, however, this area will be subject to reprofiling and planting with trees relocated from other parts of the site. Where works within these areas are required, they will follow the methodology detailed below.

6.5 The following precautionary methodology will be required across all areas of site where suitable vegetation is present to ensure reptiles are not harmed by the construction. This includes the small parcel of grassland surrounding the buildings located to the western boundary and the limited pockets of dense scrub located to the west and southwest of the site.

6.6 All measures described below will take place prior to any construction work. The following measures will be undertaken prior to commencement of any construction or site enabling works:

- A toolbox talk will be provided to all contractors on site to cover the protected species found on site, legislation protecting them and safe method of works,
- Reptile exclusion fencing (see specification in Appendix 3) will be installed along the southern boundary under ecological supervision during the active period (March to October, (weather dependant), and encompass the grassland and woodland where reptiles are most likely to access the site via the adjacent railway line (Figure 2). A destructive search will be carried out prior to the installation of fencing by a suitably qualified ecologist. Connectivity to the railway line will be maintained throughout the works.
- The exclusion fencing will stay in-situ throughout the development and only removed on completion of works (including landscaping) within suitable conditions during the reptile active period March to October (weather dependant).
- The receptor site will be enhanced with the addition of native wildflower plug planting and grassland will be left uncut, with the exception of small areas cut to a minimum height of 15cm to create a mosaic of long and short grassland areas. A total of two log/ brash piles (Appendix 5) will be created from trees felled on-site and placed within the receptor site within the tussocky grassland.
- The works to the south west boundary will be prioritised, following the methodology detailed below. The creation of hibernacula (Appendix 4) and replanting of retained trees will occur prior to the commencement of other development on site. Exclusion fencing will be installed along the boundary as shown on Figure 2 and this area will then be opened up to allow reptiles access along this boundary during the construction period.

6.7 Following the completion of the measures above, a precautionary methodology will be followed on site to clear any habitats with suitability for reptiles. The construction footprint will be mown using a two-stage cutting program.

- Ideally, during the hibernation period for reptiles (November to March if conditions suitable), grassland and other vegetation in areas outside the reptile receptor area will be cut to a minimum sward length of 150mm using hand tools only; and maintained to ensure that the sward remains at this height, providing there is no risk of disturbing ground level vegetation where reptiles may be hibernating.

- All further measures below will be carried out under ecological supervision during the active period for reptiles during suitable temperatures (above 15^{oC}) using hand tools only, unless otherwise specified below or by the ecologist on site.

- The grassland will be cut to a minimum sward length of 150mm. A fingertip search for reptiles of the construction footprint will then be carried out by an ecologist prior to a further cut of vegetation.

- The second cut of vegetation to ground level will then be carried out, followed by a second fingertip search and reptile capture.

- The grass will then be stripped using a small (less than 5 tonne machine and 1m wide toothed bucket), and each turf searched for reptiles by the ecologist. The turfs will then be piled to create an island within unsuitable habitat for reptiles to prevent recolonisation.

- Any reptiles found during the fingertip and destructive search will be placed in the receptor site located in the southeast of the site. Connectivity to the adjacent railway line to the south of the site will be maintained, allowing reptiles to disperse and commute between sites.

- Once all suitable habitat has been removed from the construction footprint, works can progress. In the event reptiles are found during works, all works will stop whilst an ecologist is contacted, and the reptile carefully removed from the construction area.

- Management of the receptor site post-development will include an annual conservation-cut of the receptor site before mowing commences. This will give plants the opportunity to flower and the dispersal of seeds, whilst allowing a longer and denser sward to develop.

7 Conclusion

7.1 A very low population of slow worms (peak count of two adults) and common lizard (peak count of one adult), were found along the southern boundary of site, adjacent to the off site railway line. This is likely to be a relatively recent colonisation of unmanaged habitats on site, from the railway line.

7.2 Habitat to the south east boundary will be retained and enhanced for reptiles and will form a receptor during works. The south west section will also be opened up to reptiles following completion of planting.

7.3 Providing the measures detailed in Section 5 of this report are carried out, the proposed development will be in compliance with relevant protected species legislation.

7.4 In addition, the implementation of enhancement measures for reptiles detailed above and within the Preliminary Ecological Assessment (Bakerwell Ltd, 2022) will result in an increase in suitable habitats and management of these to the long-term benefit of reptiles.

8 References

Bakerwell Ltd (2022) *Preliminary Ecological Assessment.* Kent, UK

CIEEM (2019) *Advice Note*, *On the Lifespan of Ecological Reports and Surveys,* April 2019. Chartered Institute for Ecology and Environmental Management. Accessed Online.

Froglife (1999) *Advice Sheet 10*, *Reptile Survey.* Froglife, Halesworth, UK

Gent, T. & Gibson, S. (2003) *Herpetofauna Workers Manual* JNCC: Peterborough

Herpetofauna Groups of Britain and Ireland (1998). *Evaluating Local Mitigation/Translocation Programmes: Maintaining Best Practice and Lawful Standards.* HGBI Advisory Notes for Amphibian and Reptile Groups (ARGs).

Inns, H., (2009). Britain's reptile and Amphibians. Wildguides Ltd, Old Basing, Hampshire.

Natural England (2010) Reptile Habitat Management Handbook, Bournemouth, UK

9 Appendices

Appendix 1: Levels of Importance

Appendix 2: Reptile Survey Results Table

Appendix 3: Reptile Fencing Specification

Appendix 4: Hibernacula Specification

Appendix 5: Log Pile Specification

Appendix 1: Levels of Importance

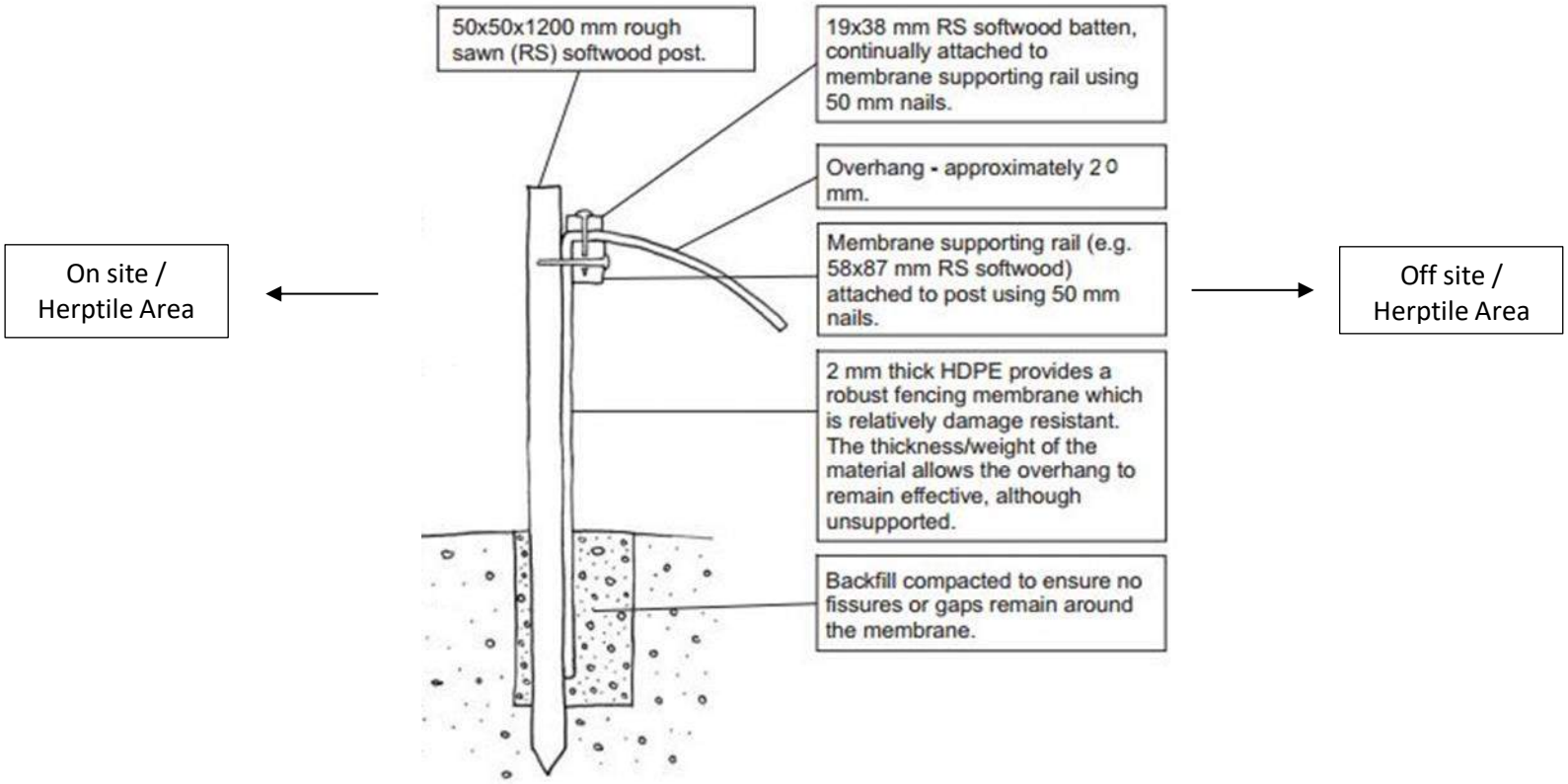
Geographic Scale	Example
International	An internationally designated site[1], or site which would meet the criteria for such a designation. A viable area of Annexe 1 habitat type, or smaller area essential to maintain the viability of a larger whole. Any regularly occurring population of an internationally important species, threatened or rare in the UK. A regularly occurring, nationally significant population/ number of any internationally important species.
National	A nationally designated site[2], or site which would meet the criteria of such a designation. A viable area of a Habitat of Principal Importance and priority habitats in England (NERC Act 2006) or smaller areas essential to maintain the viability of a larger whole. Any regularly occurring, regionally or county significant population/number of any nationally important species. A feature identified as of Habitat or Species of Principal Importance or Priority habitats
Regional	Sites which exceed the County-level designations but fall short of SSSI selection guidelines. Viable areas of key habitat identified in the Regional BAP or smaller areas essential to maintain the viability of a larger whole. Viable areas of key habitat of regional value in the appropriate Natural Area profile. Any regularly occurring, locally significant population of a species nationally scarce which occurs in 16-100 10km squares in the UK or in a Regional BAP or relevant Natural Area on account of regional rarity or localisation. A regularly occurring, locally significant number of a regionally important species.
Metropolitan, County, Vice County	Semi-natural ancient woodland greater than 0.25ha. County/Metropolitan sites which meet the published ecological selection criteria for designation, including Local Nature Reserves (LNR) selected on County/Metropolitan ecological criteria. A viable area of Habitat of Principle Importance and Priority Habitats in England (NERC) A regularly occurring, locally significant population of a County/Metropolitan "red data book" or LBAP species on account of regional rarity or localisation. A regularly occurring, locally significant number of a County/Metropolitan important species.
District	Semi-natural ancient woodland smaller than 0.25 ha. Areas of habitat identified in a sub-county (District/Borough) BAP or in the relevant Natural Area profile. District sites that meet the published ecological selection criteria for designation, including LNR selected on District/Borough ecological criteria. Sites/features scarce within the District/Borough. A diverse and/or ecologically valuable hedgerow network. A population of a species that is listed in a District/Borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation. A regularly occurring, locally significant number of a District/Borough important species during a critical phase of its life cycle.
Local	Areas of habitat considered to appreciably enrich the habitat resource within the context of the parish or neighbourhood (e.g. species-rich hedgerows); and LNRs selected on parish ecological criteria.

[1] Such as Special Protection Areas (SPAs), Special Areas of Conservation (SACs) or, Wetlands of International Importance (RAMSAR) [2] Such as Site of Special Scientific Interest

Appendix 2: Reptile Survey Results Table

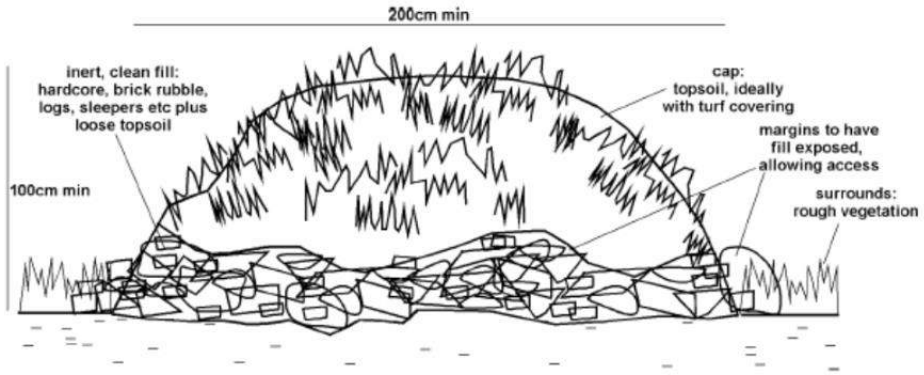
Presence/ Absence Survey Information				Survey Conditions				Adult Results											Juvenile Results					Other Adult Results									
Visit No.	Date:	Start Time:	Surveyor's Initials	Ave Temp °C	Wind: Beaufort scale	Cloud Cover %	Rain: (N)one (L)ight (M)od (H)eavy	GCN			Viviparous Lizard			Slow worm			Grass snake			Area found	GCN	Viviparous Lizard	Slow worm	Grass snake	Area found	Amphibians			Small Mammal			Grass snake			Area found
								Male	Female	Unknown Adult	Male	Female	Unknown Adult	Male	Female	Unknown Adult	Male	Female	Unknown Adult		Juvenile	Juvenile	Juvenile	Juvenile		Frog	Toad	Other	Field Vole	Shrew	Mouse	Male	Female	Unknown Adult	
1	24.05.2022	12:30	LP	14	1	60	N	0	0	0	0	0	0	0	0	0	0	0	0	N/A	0	0	0	0		0	0	0	0	0	0	0	0	0	
2	27.05.2022	13:00	AK	17.5	2	50	N	0	0	0	0	0	0	0	1	0	0	0	0	Mat 7	0	0	0	0		0	0	0	0	0	0	0	0	0	
3	30.05.2022	16:30	AK	15	2	80	N	0	0	0	0	0	0	0	1	0	0	0	0	Mat 7	0	0	0	0		0	0	0	0	0	0	0	0	0	
4	01.06.2022	08:30	RCD	12	1	10	N	0	0	0	0	0	0	0	0	0	0	0	0	N/A	0	0	0	0		0	0	0	0	0	0	0	0	0	
5	09.06.2022	09:50	LP	15.5	2	10	N	0	0	0	0	1	0	0	2	0	0	0	0	Mat 2 c/l Mat 7 s/w	0	0	0	0		0	0	0	0	0	0	0	0	0	
6	10.06.2022	16:10	LP	18.5	2	10	N	0	0	0	0	1	0	0	1	0	0	0	0	Mat 3 c/l Mat 7 s/w	0	0	0	0		0	0	0	0	0	0	0	0	0	
7	13.06.2022	09:10	SC	17	1	40	N	0	0	0	0	0	0	0	1	0	0	0	0	Mat 7	0	0	0	0		0	0	0	0	0	0	0	0	0	
Totals								**0**	**0**	**0**	**0**	**2**	**0**	**0**	**6**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**										
								TOTAL ADULTS =	**0**		**TOTAL ADULTS =**	**2**		**TOTAL ADULTS =**	**6**		**TOTAL ADULTS =**	**0**			**TOTAL JUV =**	**0**												

Appendix 3: Reptile Fencing Specification



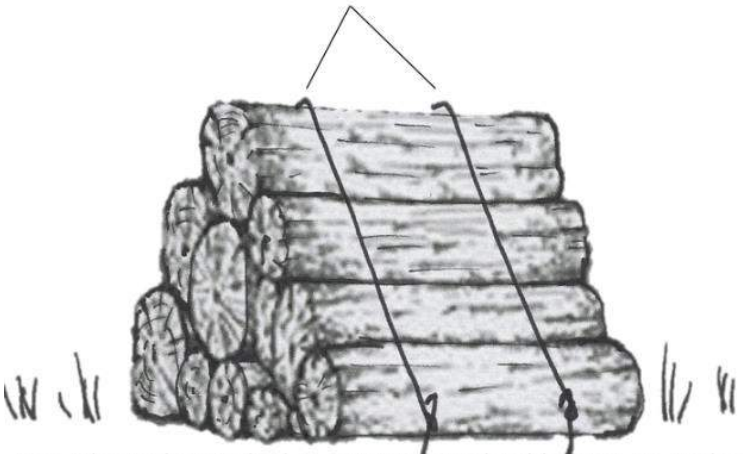
Appendix 4: Hibernacula Specification

Suggested Hibernacula Design (After English Nature, 2001)
The design mimics artificial and natural conditions in which herptiles have been found over wintering. Dimensions should not be below 2m length x 1m width and 1m height. Hibernacula should be placed on free draining surfaces, with the the fill located in an excavated depression in the ground above the flood line.



Appendix 5: Log Pile Specification

Logs tied down with wire, kept taut and pinned to the ground with pegs.



Log piles to be stacked in existing grassland habitat, in unshaded position, preferably south facing. Log piles to be formed from native arisings following tree felling, or locally sourced native hardwood.