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PROTECTED SPECIES SURVEYS, LAND AT THE FORMER TUDOR INN SITE, CIMLA, NEATH.

On behalf of

TAI TARIAN LTD

January 2024

Ref: HE/32/2023
Issue 2

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We confirm that in preparing this Report we have exercised reasonable skill and care, taking into account the project objectives, the agreed scope of the work, prevailing site conditions and the degree of manpower and resources allocated to the project.

All habitat and protected species surveys present a ‘snapshot’ of conditions existing and species present, or considered having potential to be present, at the time of survey. Many species are mobile and distributions can vary across time. Results and findings presented in this report should be considered with these factors in mind.

Protected species surveys are recognised as having a ‘shelf life’ of two years maximum in normal circumstances. Surveys older than this are unlikely to be accepted by a Local Planning Authority or Natural Resources Wales as viable documentation without just cause or reason.

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SUMMARY

Following a Preliminary Ecological Appraisal (PEA) carried out by Ecological Services Ltd, Hawkeswood Ecology was instructed to carry out protected species surveys for bats and reptiles on land at Tudor Inn, Cimla, Neath. In addition, the Site and near surrounds were searched for the presence of badger setts and the use of the Site by breeding birds was assessed. It is proposed to develop the Site for residential purposes.

The initial PEA was undertaken in May 2022 and identified three main habitats on Site, semi-improved neutral grassland, rows of trees and an area of dense scrub. Recommendations were made for further survey for bat activity, assessment of tree roost potential for bats and a presence – absence survey for reptiles.

These surveys were undertaken during 2023 by Hawkeswood Ecology using methodologies detailed within the report reflecting current best practice at the time of survey.

The protected species surveys involved a Preliminary Roost Assessment of trees on Site and activity surveys for bats and a presence – absence survey for reptiles.

The bat transect surveys noted limited activity over the Site with common pipistrelle the most commonly recorded species followed by soprano pipistrelle. Whiskered bat was infrequently recorded along with occasional noctule. Of 29 trees or groups of trees assessed for roosting potential from the ground, 8 were considered to be of medium potential to support roosting bats, the remainder either negligible or low potential. No roosting was noted in the trees on Site but further climbing surveys may be necessary depending upon the final tree removal plan.

The reptile survey found slow worms present around all Site boundaries with no other reptiles found. Recommendations are made for movement and translocation of slow worms.

The conclusions of this report are considered valid for two years from the survey dates noted in Section 1 of the report.

1 INTRODUCTION

1.1 Following earlier Preliminary Ecological Appraisal undertaken by Ecological Services Ltd reported in May 2022, Hawkeswood Ecology were instructed to undertake recommended follow up survey at the site of the former Tudor Inn, Cimla, Neath. The Site lies at approximate central Grid Reference SS 76051 96013 and lies on the edge of the Cimla conurbation. It is proposed to develop the Site for residential purposes.

1.2 Ecological Services Ltd surveyed the Site in April 2022 reporting in May 2022. They reported that the Site was dominated by semi-improved grassland, tree lines/isolated standard trees and dense bramble scrub. There recommendations were that the Site should be subject to the following species surveys:

- Bat activity transect survey;
- Bat roost potential tree survey;
- Reptile presence-absence refugia survey.

1.3 In addition, the Site was assessed for use by badgers and breeding birds.

1.4 It is proposed to develop a new access to the Site with a road coming off Beacons View. This will require the demolition of an existing property and an initial assessment of this property was made in relation to bats.

1.5 The objectives of the protected species surveys were:

- To assess the use of the Site by foraging bats;
- To carry out ground based Preliminary Roost Assessment of the trees on Site in relation to their supporting features for use by roosting bats;
- To undertake a reptile presence – absence survey.
- To provide recommendations for further survey or mitigation proposals to safeguard any protected species found.

1.6 The bat surveys were undertaken over the period of 25th May to 26th September 2023 and included both transect survey and use of passive detectors left on Site. The dates for each specific survey are detailed in the body of the report.

1.7 The reptile survey was undertaken over the period of 2nd May to 19th June 2023 with the mats laid out on 17th April 2023.

2. METHODOLOGY

Bats - Activity

2.1 A series of three activity surveys were undertaken using both transect surveys and passive detectors placed at locations on the Site. The routes taken and locations of passive machines are shown in Figure 1 and Figure 2 respectively.

2.2 Activity surveys were based upon recommendations made in the Bat Conservation Trust Document '*Bat Surveys, Good Practice Guidelines for Professional Ecologist, 2016*'. Three visits to Site were involved with three transect surveys carried out on 25th May, 5th July and 26th September 2023. Each transect consisted of steady walking with four stops of approximately 5 minutes at locations shown in Figure 1. Passive detectors were located across the Site and left in place also on three occasions around the transect survey dates.

2.3 The transect survey involved two surveyors for security and safety reasons, an Anabat Scout machine was used for the transect survey. These machines continually record, the recordings available for later analysis.

2.4 Passive detecting machines used were Anabat Express machines which were set to record on a pre-determined schedule allowing at least 15 minutes before sunset to at least 15 minutes after sunrise. The machines were placed at various positions to assist in quantifying the use of the Site by bats.

2.5 The recordings were analysed using AnalookW and Batsound software, by use of which it is possible to separate most species present from the sonograms produced.

Bats – Trees, Preliminary Roost Assessment

2.6 A ground level visual inspection was carried out from the ground using binoculars. The use of ladders was limited but assisted along with the use of an endoscope where safe and feasible. The inspection looked for features on the trees that could be used by bats for roosting and shelter.

2.7 The approximate location of each tree/group of trees assessed is shown in Figure 3 and the surveyor noted species, presence of ivy, presence cavities, holes or other suitable crevices for bats to roost within, or presence of dead wood which may indicate some level of roosting opportunity and attributed an appropriate risk category. The trees are referred to in this document by the numbers associated with them in the previously undertaken arboricultural Survey where possible (some trees or groups of trees where tags were not found or the survey requirement differed have been given numbers by Hawkeswood Ecology). The bat roost potential categories are presented in Table 1 below.

Table 1: Risk Assessment features for bat-roost potential during tree inspection (After *Bat Surveys for Professional Ecologists- Good Practice Guidelines'* –Bat Conservation Trust 2016**):**

Suitability	Roosting	Commuting/Foraging Habitats
Negligible potential	No features likely to be used by roosting bats.	Negligible habitat Features likely to be used by commuting or foraging bats.
Low	Trees with no obvious PRF's to support bats although the size and age may result in limited features that may support bats or only limited features noted in inspection	Suitable habitat but isolated, may be used by small numbers of bats; i.e. isolated tree, small patch of scrub.
Medium	A Tree with one or more PRF's that could be used by bats due to their size, shelter, protection conditions and surrounding habitat but unlikely to support a roost of high conservation status.	Habitat connected to the wider landscape such as trees, water, grassland or scrub.
High	A tree with one or more PRF's that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to size, shelter, protection, conditions and surrounding habitat.	Continuous high-quality habitat connected to the wider landscape likely to be used regularly by commuting and foraging bats. A site near to known roosts.

Notes: PRF's – Potential
Roost Features

2.8 Evidence such as bat droppings (faeces) was looked for in holes where possible and at the base of the trees, and any holes also examined for urine or fur staining typically found at the access points.

2.9 The daytime inspection was carried out with the aid of close focusing binoculars, endoscope, ladders and a 1,000,000 candlepower spot lamp.

Reptiles

2.10 The reptile presence/absence survey was carried out in accordance with guidelines given in The Herpetofauna Worker's Manual (JNCC, 2003) and Froglife Advice Sheet no. 10,

'*Reptile Survey, an introduction to planning, conducting and interpreting surveys for snake and lizard conservation.*' (1999).

2.11 Felt mats were used as refugia and placed into position on 17th April 2023. The refugia were visited on seven occasions in suitable weather conditions as described in the referenced published guidance, from 2nd May to 9th June 2023. In addition, ad hoc checks were made on mats and any suitable refugia on Site on various visits. These are not included in the data but are discussed in Section 6. Appendix 1, courtesy of Chris Gleed-Owen, demonstrates suitable weather conditions and timing for survey throughout the reptilian activity period of March to October.

2.12 A total of 28 refugia were used across suitable areas of the Site along with a number of pieces of roofing felt from the demolished building in and around the demolition rubble. Locations of the placed refugia are shown in Figure 4. The refugia were placed in boundary areas with scrub encroaching to the grassland and across the open grassland also. The refugia were placed whenever possible in locations that would warm up in the sun and provide a favourable place for reptiles to warm up under or bask upon at some point during the day.

2.13 The total survey area was approximately 0.9 hectares of which approximately 0.1 was inaccessible dense bramble on a steep west facing slope. The Froglife guidelines suggest placing 5-10 refugia per hectare for adequate survey. The density of as minimum of 28 refugia used over an area of approximately 0.8 hectares at this Site gives a density of approximately 26 refugia per hectare, increasing the chances of finding any animals present.

Constraints

Bats

2.14 The ground based PRA was limited in some boundary areas due to access restrictions, however, this was not considered a serious issue given the condition of trees assessed unless otherwise noted in the results.

2.15 The use of passive detectors gives a tremendous amount of data but this is based on a fixed point and relates not to individual animals but to passes by bats. In addition, some bats, i.e. brown long-eared bats, have very quiet calls. This must be borne in mind during analysis of bat usage across the Site. Also, there are known difficulties in labelling myotis species calls. Where identified in this report the conclusion is based on call characteristics being most similar to the species apportioned. If there is not enough information, the bat is described simply as a 'Myotis' species.

2.16 A planned visit on 15th August 2023 was abandoned on arrival as approximately 50+ youths were on Site drinking and making a lot of noise. This pattern was apparent throughout the season although no other visit was affected.

2.17 A passive detector on the drive was interfered with during the September visit causing a failure to record for the full period.

Reptiles

2.18 The Site is heavily disturbed by youths and some mats were interfered with or removed. Where appropriate the mats were replaced, however, if they were again removed the mats were relocated to less visible areas for the safety of the reptiles beneath them. It is possible that reduced reptile numbers as the survey continued was a result of interference from the youths or dog walkers.

Birds

2.19 A dedicated breeding bird survey was not undertaken. An assessment of the Site in relation to breeding birds was made and ad-hoc records of species noted during the many other field visits made is reported in the report text.

3. SURVEY TEAM EXPERIENCE

3.1 The lead surveyor and report author is Eric Hawkeswood. Eric has many years experience of broad habitat and detailed botanical and species surveying. Eric has been an active member of the Brecknock Bat Group since 1999 and been involved in a number of long running surveys within the county. He is a Natural Resources Wales (NRW) licensed bat worker (no. S092015-1, 2023) and has extensive experience of roost inspections and emergence work. He has been a professional in the nature conservation field for thirty four years formerly working as Reserves Manager and Conservation Officer at Gwent Wildlife Trust and Woodland Manager for the Ruperra Conservation Trust. Eric has worked as an Ecological Consultant as joint proprietor of Hawkeswood Ecology since 2001.

3.2 Assistant surveyor on the bat activity surveys was Liam Kelly. Liam has worked with Hawkeswood Ecology since 2012 and has extensive experience of emergence/re-entry and activity surveys. On this occasion Liam was accompanying the lead surveyor for safety reasons.

4 DESKTOP STUDY

4.1 A desktop survey was undertaken by Ecological Services Ltd. as part of the Ecological Assessment undertaken by them in 2022. They reported common pipistrelle bats, house sparrow, dunnock and song thrush within 500 metres of the Site. To 2 kilometres from the Site they reported grass snake and slow worm.

5 FIELD SURVEY

Bats - Activity

5.1 Bat activity surveys were undertaken over the period of May to September 2023. Table 2 below shows the conditions at the time of the transect surveys and Table 3 shows the temperatures and general conditions over the passive detector survey periods. Figure 1 shows the transect route. Each circuit took approximately 30-45 minutes.

Table 2: Weather conditions for survey:

Date	Survey type	Times	Weather conditions
25th May 2023	Evening activity	21.00 – 23.10 (sunset 21.15)	19-18ºC, high cloud to 80% cover, warm and dry, humid, good visibility, still – F1 SW breeze.
5th July 2023	Evening activity	21.15 - 23.30 (sunset 21.34)	15-13ºC, variable cloud cover, dry, good visibility, F2/F3 SW breeze.
26th September 2023	Evening activity	19.00 -21.05 (sunset 21.05)	14-14ºC, ~80% high cloud variable, dry, good visibility, F2 SW breeze.

Table 3: Conditions over passive detector periods:

Date	Temp ºC range low to high and predicted weather	
May 3rd – 7th		
03/05/23	11-16, broken cloud. Westerly breeze	
04/05/23	11-14, broken cloud. Westerly breeze	
05/05/23	13-17, broken cloud. Westerly swinging southerly	
06/05/23	15-19, broken cloud. Southerly breeze	
July 2nd – July 6th		
02/07/23	14-13	Winds predominantly northerly through the period swinging to the east then west, mainly broken cloud
03/07/23	12-10	
04/07/23	12-11	
05/07/23	16-12	
06/07/23	13-12	
September 24th – 30th September		
24/09/23	16-14	Winds mostly westerly, swinging to southerly. Very strong and gale force through the middle of the period with some rain.
25/09/23	15-13	
26/09/23	15-12	
27/09/23	15-12	
28/09/23	15-10	
29/09/23	13-12	

Activity Survey Summary
25th May 2023

5.2 The first bat recorded was an unspecified pipistrelle flying over at 21.15. From this point there was limited activity across the Site with most activity occurring in the wooded drive into the Site, and by point B at the rear of the housing. Common pipistrelle was by far the most frequently noted species with 79 recorded passes but no large numbers of animals were noted with rarely more than a single animal noted flying.

5.3 Other species noted were soprano pipistrelle (10 passes) and a *Myotis* species bat, thought on analysis most likely to be whiskered bat; only three passes of this bat were recorded, along the south eastern boundary and to the rear of the housing.

5th July 2023

5.4 The first bat recorded was a foraging soprano pipistrelle over the access drive (point C Figure 1) at 21.43. Activity was again limited throughout the survey with most passes recorded in the access drive area and to the rear of the housing on the northern boundary. As the survey progressed bats were more frequently recorded over the dense bramble on the south western boundary but only infrequent passes were noted over the south eastern boundary.

5.5 Again common pipistrelle was by far the most frequently recorded species with 85 passes. Other species noted were soprano pipistrelle (20 passes), whiskered (12 passes) and noctule (5 passes). Whiskered was again associated with the wooded areas in the north and east and the south eastern boundary.

26th September 2023

5.6 Activity was slightly up in this survey with far more pipistrelle social calls noted. The first bat noted was a soprano pipistrelle foraging over dense bramble at 19.17. Common pipistrelle was the most frequently recorded species with 98 passes and a large amount of social activity was noted including calls and bats in pursuit of each other.

5.7 Other species recorded were soprano pipistrelle (21 passes) and noctule (4 passes). Activity centred around the northern parts of the site and to the rear of the houses on the north eastern boundary where wooded.

Passive Detectors

5.8 The detectors were placed out on three occasions for periods of between 4 and 6 nights.

5.9 The most frequently species noted in all surveys was common pipistrelle and the most active area was the access drive in the north west of the Site. Other species recoded in the course of the three sessions were soprano pipistrelle, whiskered and noctule bats.

5.10 The frequency of passes noted of all species largely reflected the levels of activity noted from them in during the transect surveys with the exception of whiskered bats. Here, there were no recordings made in the May and July periods yet showed an increase in September when they became frequent in the driveway regularly appearing after

midnight for some hours in the early morning. They also were recorded infrequently to the rear of the hosing in this period.

22nd – 28th May 2023

5.11 The two machines were placed at the locations shown in Fig 2, in the access drive and to the rear of housing in a wooded area. The machine in the access drive showed varying activity through the period. Activity was at its height in the evening to midnight and then again in the dawn period. Poor weather resulted on lower activity levels and no bats were recorded on the night of the 24/25th. Species noted were common and soprano pipistrelle and occasional noctule.

5.12 To the rear of the housing there were few recorded passes with only common and soprano pipistrelle bats noted. A potential issue in this location was the proximity to branches which resulted in poorly defined recordings and a lot of wind noise.

3rd to 7th July 2023

5.13 The detectors were moved to different locations for this period as shown in Figure 2. A detector was kept to the rear of the housing but moved to a more open location, the second detector was placed on the boundary at the southeast.

5.14 To the rear of the housing common and soprano pipistrelle were recorded with most activity in the evenings to midnight and again around dawn. Overflying noctule was also recorded on two occasions. Common pipistrelle was the most frequently recorded species in this location with only a small number of soprano pipistrelle bat passes.

24th to 30th September

5.15 Detectors were placed in the locations shown in Figure 2. The machine placed in the Drive failed after being interfered with (damage to microphone) with no recordings made after the night of 26/27th. Up to this point there was frequent common pipistrelle and whiskered bat activity with occasional overflying noctule. Pipistrelle social calls were frequent. On the last evening of recording, whiskered bats dominated the passes recorded after midnight.

5.16 At the second location to the rear of the houses (as in July) common pipistrelle dominated the passes again with many social calls. Soprano pipistrelle occurred only occasionally and not at all on 4 nights. Whiskered bat was recorded occasionally with a greater number of passes towards the end of the period.

Trees - Preliminary Roost Assessment

5.17 The Preliminary Roost Assessment (PRA) was undertaken in good weather conditions on 17th April 2023. The trees on Site are generally in the north of the Site, particularly along the access drive where cypress trees dominate, and to the rear of the housing on the northeastern boundary. The demolition pile has been colonised by young goat willow.

5.18 Table 4 below gives only the findings of the ground level assessment. The tag numbers, where used, were found on the trees but do not relate to the Treescene arbicultural report of February 2023. Figure 3 gives approximate locations of assessed trees/groups of trees.

Table 4: Assessment of Bat Roost Potential in Trees on Site:							
Tree no	Species	Ivy*	Cavities	Dead Wood	Approx height (m)	Bat presence / Recommendations	Roost potential
1801	Cypress	M	None visible	None significant.	10	No obvious opportunities, ivy not too dense to mask opportunities.	Low
-	Cypress	N	No	Yes	8	Two young trees overshadowed. No obvious opportunities	Low
1812	Cypress	N	No	Limbs to north east	10	Large multi-stemmed tree, potential opportunistic PRF's in flutes, no obvious cavities. Section fell, leave 24 hours before processing.	Medium
-	Cypress	N	No	No	8	Suppressed tree between 1812 and 1813, no PRFs	Negligible
1813	Cypress	L	No	No	15	Mature tree in good condition	Negligible
G1	Cypress	N	No	No	To 12	Group suppressed cypress (~12), all tall and thin growth, showing no PRFs.	Low
1814	Cypress	L	None visible	No	15	Large mature multi stemmed tree with no obvious PRFs. Section fell, leave 24 hours before processing. Medium due to size	Medium
G2	Cypress	N	Some cracking	No	10	Group 2 supressed cypress around 1814, some longitudinal shallow cracks.	Medium
-	Italian alder	L	No	No	10	Young Semi-mature tree, small girth, no opportunities.	Negligible
1815	Cypress	N	No	No	15	Mature tree large bough broken to north, no PRF's visible, tear looked clean at time of survey, medium status as cautionary. Pre-works inspection if to be felled.	Medium
-	Cypress	N	Nothing obvious	Some basal rot	15	Mature tree showing some rot in the base, no cavities. Also fluting offering opportunistic roost opportunities. and lacking cavities or cracks. Re-inspect before any works undertaken	Medium
-	Cypress	L	No	No	15	Mature tree, possible rot in base, fluting. Re-inspect before works commence. CLIMBING SURVEY	Medium

1816	Cypress	L	No	No	10	Semi-mature cypress, no PRFs	Negligible
1817	Elm	L	No	No	10	Multi-stemmed tree with no PRFs.	Negligible
1822-23	Cypress	N	No	No	8	Young mature trees, no PRFs.	Negligible
1824	Horse chestnut	L	One shallow cavity plus shallow branch scars	Some rot in trunk	10	Mature tree, multi stem from ~1.5m, some rot in trunk and one shallow cavity. CLIMBING SURVEY.	Medium
1825	Horse chestnut	L	No	No	12	Mature tree, multi-stemmed from 2 metres, branch scars but no obvious PRFs. Fell, leave 24 hours before processing. Tree number not clear (but n group of three)	Low
1826	Horse chestnut	N	Flaking bark, shallow crevices	No	15	Tree is generally OK with no obvious PRFs, due to size re-check before any works take place.	Low
1827	Cypress	N	No	No	10	No opportunities	Negligible
1828	Cypress	N	Fluting	Rot in bole	15	Multi stemmed mature tree with severe rot in bole at ~0.5m. Also has fluting offering opportunistic PRFs. Re-inspect before felling, fell and leave for 24 hours before processing.	Medium
-	Goat willow	N	No	No	10	Multi-stemmed tree from ground, no PRFs	Low
G3	Goat willow, hawthorn, elder	N	No	No	To 4	Developing scrub on demolition rubble, no opportunities, re-inspect before clearance	Negligible
1841	Sycamore	L	No	No	10	Multi-stemmed from ground, good condition, no PRFs.	Negligible
-	Sycamore	L/M	No	No	12	Multi-stemmed from ground, no PRFs	Low
1833	Sycamore x2	L	No	No	To 10	Two semi-mature sycamore, generally good condition, some fluting.	Low
1831	Hawthorn	D	No	No	6	Multi stemmed shrub from ~0.5m, fluting, potential opportunistic PRFs, small dead branches low down.	Medium
-	Sycamore	N/L	No	No	9	On site boundary, multi stemmed tree, no obvious PRFs	Low

-	Common oak	D	No	Small branches	7	On field bank, south eastern boundary. Dense ivy may mask opportunities, no obvious PRFs. Re-inspect if works affect this tree.	Medium
-	Beech	No	No	No	6	Multi stemmed from ground, no opportunities.	Negligible

PRF = Potential Roost Feature
*Ivy cover: N = none
L = light cover
M = medium cover
D = dense cover

5.19 Of 28 trees or groups of trees assessed 10 were considered to be of medium potential for supporting roosting bats, the rest low or negligible potential. Climbing surveys and further pre-inspection checks are noted in the comments column if further works are proposed on some trees. In some cases, even though a tree appears in good condition, felling whole and leaving for 24 hours is recommended before processing. This will allow any bats present to escape in the unlikely event that they are present.

Reptiles

5.20 Twenty eight felt mats were placed out on 17th April 2023 with survey commencing on 2nd May 2023. The conditions of survey are given in Table 5 below.

Table 5:	Weather conditions and time of survey
Date	
Visit 1 02/05/2023	9.30 am, 13C, cloud with sunny intervals, F1/2 SW breeze, dry.
Visit 2 04/05/2023	9.45 am, 18C, sunny with hazy cloud cover, F2/3 NE breeze, dry.
Visit 3 12/05/2023	9.30 pm, 14C, cloud clearing, sunny intervals, F2/3 NE breeze, dry.
Visit 4 15/05/2023	10.00 am, 14C, ~40% cloud, sunny intervals, F2/3 NE breeze, dry.
Visit 5 19/05/2023	8.45 am, 14C, sun breaking through cloud, still, dry.
Visit 6 23/05/2023	9.00 am, 15C, sunny intervals, high cloud, F1 NE breeze.
Visit 7 19/06/2023	9.30 am, 17C, sunny intervals, F2 W breeze, dry (after period of very hot dry weather)

5.21 Over the course of the survey visits a total of 54 slow worms records were made. The highest count in any one survey event was 15 on visit 1. No other reptile species were identified from Site.

5.22 There were concerns over the removal of some mats including an instance where an area of bracken was set on fire and some mats used to encourage the burn. As a result, mats in the open were moved to more closed situations which may have affected the results which show a bias to higher numbers early in the survey.

5.23 Adventitious results showed continuing use of mats 21 and 14 in particular, with some of the rubbish felt around the demolition area also providing positive results during ad-hoc visits.

Table 6: Results of Reptile presence absence survey

	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Visit 7
	02/05/23	04/05/23	12/05/23	15/05/23	19/05/23	23/05/23	19/06/23
Felt Matt							
3	1F						
4		1F	1F				
8							1Juv
11				1F			
12	3F		1M		1F		1Juv
13	2F, 1M	3F, 1M	1F				
14	1 Juv	2Juv	2Juv	1Juv	3Juv	1juv	
15	1F	1M					
17					1F		
18		1F				1F	
19	1F	1F					
20	1F			1F			
21	2Juv, 2F	2F, 2M				1M	1F
23			1F	1F			
Other (rubbish etc)					1F		
	15	14	6	4	6	3	3

F = Female (mature), M = Male (Mature), Juv = Juvenile

Breeding birds

5.24 Although no dedicated survey was undertaken an assessment of the Site and notes of species on or adjacent to it was made. The Site sits on the urban edge of Cimla with open countryside on two boundaries. There are trees and shrubs on the northern boundaries with dense bramble on a steep west facing slope in the south west of the Site. The open area of the Site, the former Tudor Inn grounds, is flat and heavily disturbed. As well as continuing use by adolescents in the evenings it is well used by dog walkers during the day, a number of whom were met during survey works.

5.25 The habitats present and pattern of use and disturbance would limit breeding activity to the shrubby areas and dense bramble. It is considered that the Site would support typical urban and urban edge species and is unlikely to support any significant species. A list of species recorded is given below, Section 7 species (See Section 7, Legislation and Policy) are identified in bold print.

Species
Black headed gull
Blackbird
Blackcap
Blue tit
Chiff chaff
Dunnock
Goldcrest
Goldfinch
Great tit
House sparrow
Jackdaw
Lesser black backed gull
Starling
Wood pigeon
Wren

House

5.26 Access is proposed off Beacons View and will require the demolition of an existing property. The house could only be viewed externally and from a distance but it was clear that it has been recently re-roofed and fitted with External Wall Insulation. This generally removes any potential for bats to enter a building. Further detailed survey will be required however if the need for demolition is confirmed.

Badger

5.27 Animal paths were noted on the Site but badger activity could not be confirmed, there was no presence of latrines or foraging scrapes. The use of the Site by dog walkers and regular disturbance from youths is likely to deter any significant activity. It was considered most paths were likely to be from dog use.

6 DISCUSSION AND IMPACT ASSESSMENT

6.1 The surveys have found that the Site supports a population of slow worms and that there is bat activity concentrated in some parts of the Site that is generally limited in its extent and species involved. A number of common birds were also noted through the survey suggesting that suitable areas support breeding birds. The species present are typical of urban areas and no Schedule 1 species were noted.

6.2 In terms of bats, common pipistrelle was by far the most frequently recorded with their presence consistent throughout the survey period. The transect surveys also recorded soprano pipistrelle and, occasionally, whiskered and noctule bats. With the exception of whiskered bat, the passive detectors reflected the outcomes of the transect surveys undertaken through the season with common pipistrelle the most frequently recorded species.

6.3 The use of the passive detectors showed that whiskered bat activity increased in September, when they were noted with regularity in the access drive area. It is interesting that no calls were recorded during the transect survey undertaken in that period. They appeared to be coming to the Site around midnight and were active during the early morning.

6.4 The passive detectors also showed that the majority of common pipistrelle activity occurred during the evenings until around midnight and then in the hours just before dawn, suggesting that they did forage further afield as it became dark and they exhausted food supplied at the Site. It was also notable that soprano pipistrelle did not appear to the same extent in September with far fewer passes recorded.

6.5 It was noted that as well as whiskered bat being more active on Site in September, Common pipistrelle were more active throughout the whole night time period with plenty of social activity. During transect surveys no more than two common pipistrelles were noted together at any one time, it is difficult to know if the passes recorded on the passive machines represent a single animal or more than one, however, evidence from the transect surveys, i.e. recorded passes frequency, suggest a small number of animals present.

6.6 It is considered that the Site is of some importance to foraging bats, particularly in the areas around the access drive and wooded areas around the demolition rubble, generally at the north and north east of the Site. It is likely that the increased activity of common pipistrelle and whiskered bats in September relate to mating activity and this area of the Site could be of some importance in the immediate locality in this context.

Ground level Preliminary Roost Assessment

6.7 The ground level PRA found 10 trees that were of medium potential to support roosting bats. There was no evidence of bats using trees to roost during the transect surveys (which were not aimed at this), and only limited potential as found. Further surveys would be required for some of the trees should felling or management be required.

6.8 All UK bats enjoy full protection under British legislation and are also protected under the Conservation of Habitats and Species Regulations (2017) which interpret the Habitats Directive in UK law. The bats noted on Site are also Section 7 Priority Species (Environment Act (Wales) 2016).

6.9 The proposed development will result in removal of most of the wooded areas in the north of the Site and as such will impact upon bats using this area currently. Hawkeswood Ecology are not aware of any other development proposals locally that would have a cumulative impact upon these species.

Characterisation of Impacts for bats

6.10 The potential impacts of the development will be the loss of a wide foraging area but also the potential to lose and interrupt commuting routes to the open countryside beyond. Artificial light spill is also a potential issue for bats and needs to be considered in any development plan. Measures should be taken to maintain the potential mating areas or compensate for their loss.

6.11 The Site lies approximately 450 metres from Eaglesbush Valley Local Nature Reserve (LNR) and has strong hedgerow links to it. Measures will need to be taken to ensure commuting links are maintained.

6.12 The proposed development will result in the loss of foraging habitat and interruption of commuting routes. Mitigation and compensation must be employed to maintain the suitability of the area for bats. Given the relatively limited use of the Site the development is currently considered to be of **minor negative significance** to them although the potential mating area could be of local importance for common pipistrelle and whiskered bats.

6.13 In addition, the house that will be demolished to allow access could not be properly assessed and further survey will be necessary to properly characterise it's value for bats.

Reptiles

6.14 Slow worms were found across most of the Site boundaries with no evidence of them from the open grassed areas of the Site. Of 28 mats placed out for survey, 14 produced positive results with an age range of juvenile to mature animals clearly showing a sustainable population is present.

6.15 In addition, adventitious checks during other Site visits showed continued use of some mats well into the Autumn with mat 21 particularly productive with up to 10 animals found under it in September. This possibly demonstrates that the disturbance from parties impacted upon later survey results as mentioned in paragraph 5.23.

6.16 Given that mats were put out at a higher rate than the guidelines suggest, some consideration must be given to any estimate of the Site population from the results. the maximum count of 15 animals in one day. Table 7 below details the status of a Site for reptiles based on the numbers found by a surveyor in one session.

6.17 Given the survey used double this number of mats, a simple calculation would halve the results. Even then, the figures suggest a 'good population' of slow worms is present on Site; experience would suggest this underestimates the population.

6.18 Guidelines developed by Froglife in 1999 remain the main reference document in surveying and estimating reptile populations even though it must be applied with caution. The criteria for this designation have been formulated to identify Sites that are potentially of importance for reptiles. To qualify for the Key Reptile Site Register at least one of the following criteria must be met:

1. supports three or more reptile species
2. supports two snake species
3. supports an exceptional population of one species (see table 8)
4. supports an assemblage of species scoring least 4 (see table 8)
5. does not satisfy 1 – 4 but which is of particular regional importance due to local rarity.

Table 7: Key Reptile Site Survey Assessment

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

6.19 Figures in Table 7 refer to the 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. Given the higher number of mats placed on Site and its size, it cannot be considered a 'Key Reptile Site' based on the survey findings.

Characterisation of Impacts for Reptiles

6.20 The Site is likely to be of **local significance** for slow worms and given the presence of juveniles can be considered self-sustaining. The majority of suitable habitat for slow worm on the eastern boundaries of the Site will be lost to the development and the remainder affected. The retained area of bramble on the slopes at the west of the Site is also likely to support good numbers of slow worm but could not be accessed to survey. The loss of the area to development is likely to be of **minor negative significance** in a local (i.e. Cimla) context but be of **no** significance in a wider context if a proper mitigation and compensation strategy (i.e. capture and translocation) is produced and implemented.

Birds and badgers

6.21 The Site supports a typical assemblage of breeding birds with the majority associated with the Site boundaries. The proposed development is considered unlikely to impact

upon breeding birds and is considered to be of **no significance** if compensation measures are undertaken.

6.22 There was no evidence of badgers using the Site, however a resident did comment that badgers visit the area. As such recommendations are made to ensure that the development takes full account of the potential for badgers to be present. It is considered the development is of **no significance** for badgers.

Summary

6.23 The proposed works will remove habitats and affect, directly or indirectly, retained habitats. Impacts are considered to be neutral or of minor negative significance and appropriate mitigation measures must implemented to comply with planning guidance.

Ecosystem resilience

6.24 Under the Environment (Wales) Act 2016 and Well Being of Future Generations Act 2015 require Local Planning Authorities (LPA's) and other public bodies must seek to maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems. Assessment of the Ecosystem Resilience is therefore an integral part of the LPA's duty and they will need to consider the impacts of the proposed development upon the resilience of the adjacent wooded areas in this context. LPAs are directed to consider the resilience of ecosystems early in the planning process to aid assessment of the impacts of any proposed development upon biodiversity. In addition, a letter from the Chief Planning Officer clarified planning requirements in relation to biodiversity impacts (see Section 7) points out the responsibility of the LPA to maintain and enhance biodiversity and to provide '*a net benefit for biodiversity*'.

6.25 The premise for Ecosystem Resilience is laid out in Section 4 of The State of Natural Resources Report, a 2018 document produced by Natural Resources Wales (NRW) on behalf of the Welsh Government. It lays out a framework for assessing ecosystem resilience. However, despite the duty placed on LPA's, there is no currently agreed format for this assessment.

6.26 It is also important to note that further survey is required to fully understand the biodiversity of value of the Site thus the assessment below may be subject to change following the provision of new data.

6.27 Section 4 names five attributes that NRW consider 'building blocks' of ecosystem resilience, these are:

- Diversity
- Extent
- Condition
- Connectivity
- Adaptability

6.28 These factors are considered below, although none of them are considered 'stand-alone' and all interrelate to some extent. It is also important to note that it is the responsibility of the LPA to assess Ecosystem Resilience and that any Site based report is not able to make judgements on a wider scale. As pointed out above, it is important to note that there is as yet no agreed format to undertake such an assessment.

Diversity

6.29 The species diversity of the Site as surveyed is limited to relatively common species including four species of bat (including noctule overflying), slow worm and birds that are typical of semi-rural and urban situations.

Extent

6.30 The Site is approximately 0.7 hectares which includes a large area of demolition rubble and dense bramble. The dense bramble lies on a steep west facing slope and is to be retained, it accounts for approximately 0.1 hectares of the Site area.

Condition

6.31 The Site is unmanaged with heavy disturbance from youths at night and dog walkers in the day. It is dominated by unmanaged semi-improved neutral grassland, trees and bramble. The former inn has been demolished but the rubble not removed from Site. It also suffers from the use of the Site for fires, parties and general rubbish tipping.

Connectivity

6.32 The Site itself lies on the boundary of Cimla with hedgerow connections to the surrounding open countryside of which it is part.

Adaptability

6.33 NRW comments that:
'*Adaptability differs from the other attributes because it is part of the definition of resilience rather than an attribute that supports it. However, its inclusion in the Environment (Wales) Act is important because it emphasizes one of the most important features of resilience: dynamism and the ability to adapt to change*.'

6.34 NRW also comments that '*Adaptability cannot yet be quantified in an equivalent way to the other attributes and so we have not used it in the assessment of resilience in this State of Natural Resources Review*'. As such this cannot be considered in this report.

6.35 At its most simple, this would mean that the LPA must protect any biodiversity value of the of the Site and any impacts likely to affect adjacent areas. Without mitigation, development impacts could be considered to be significant.

7 RELEVANT LEGISLATION

Bats

7.1 British bats are protected under the Wildlife and Countryside Act 1981 (as amended). Schedule 5 of this act made it illegal to intentionally kill, injure or take any British bat. It is also an offence to intentionally damage or destroy their place of rest (the roost).

7.2 Further all bat species are protected under Annex IV of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora (The Habitats Directive) as amended which requires the United Kingdom government to provide bats with strict protection. Lesser and greater horseshoe bats are also Annex II species and regard must be made to the protection of their wider environment.

7.3 The Habitats Directive is transcribed into England and Wales Law by The Conservation of Habitats and Species Regulations 2017, this legislation consolidates amendments made to the earlier 2010 act. This legislation states in Part 3, Protection of Species, paragraph 43(1) that a person who:
(a) deliberately captures, injures or kills any wild animal of a European protected species,
(b) deliberately disturbs wild animals of any such species,
(c) deliberately takes or destroys the eggs of such an animal, or
(d) damages or destroys a breeding site or resting place of such an animal,
is committing an offence.

7.4 Further, with regard to disturbance of EPS, Paragraph 43(2) that disturbance is an act which is likely to:
(a) to impair their ability—
(i) to survive, to breed or reproduce, or to rear or nurture their young, or
(ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
(b) to affect significantly the local distribution or abundance of the species to which they belong.

7.5 In the case of a development involving the loss or modification of a building which may affect bats the above legislation must be considered and it may be necessary to apply to Natural Resources Wales for a European Protected Species Licence (EPSL).

7.6 The introduction of the Conservation of Habitats and Species Regulations 2017 has removed the defence of killing or injuring a protected species during a lawful operation, thus even in an instance where planning permission is granted, the presence of bats must be considered and mitigated for prior to commencement of works. Under the above regulations, a WAG licence can only be given if three tests are satisfied:

- The action proposed is in the interest of preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance to the environment;
- That there is not a satisfactory alternative;

- That the action proposed will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

7.7 Failure to satisfy the regulations and obtain an EPSL where required is likely to result in prosecution and can lead to severe fines of up to £5000 per bat and possible imprisonment.

7.8 Eight species of bat are listed under section 7 of the Environment Wales Act (2106). Section 7 of the Act provides a list of living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. This is a list of species considered at threat within Wales and in need of conservation management to maintain and enhance population numbers.

7.9 A duty is placed on the Local Authority by the Welsh Assembly Government to maintain and enhance populations of species listed in Section 7.

Reptiles

7.10 All common reptiles are protected under the Wildlife and Countryside Act 1981 (as amended) schedule 5, from deliberate injury or killing (Section 9(1)) and sale (Section 9(5)).

7.11 A Welsh Government licence is not required to handle or disturb slow worms but there must be proper consideration of the presence of these animals on site and mitigating measures implemented to minimise any impacts on them.

7.12 All British reptiles are listed under section 7 of the Environment Wales Act (2106). Section 7 of the Act provides a list of living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. A duty is placed on the Local Authority by the Welsh Assembly Government to maintain and enhance populations of species listed in Section 7.

Birds

7.13 Part I of the Wildlife and Countryside Act 1981 (as amended) makes it an offence (with certain limited exceptions and in the absence of a licence) intentionally to kill, injure or take any wild bird, or intentionally to damage, take or destroy its nest whilst being built or in use, or to take or destroy its eggs. Consequently, even common birds such as blackbirds or robins, and their nests and eggs are protected in this way. Any works involving removal or other management of trees or shrubs must be undertaken outside the breeding bird season (March- August).

7.14 Further, section 1(5) of Part 1 of the W&C Act states any person intentionally disturbing any wild bird included in Schedule 1 whilst it is building a nest or is in or near a nest containing eggs or young or disturbs the young of such a bird is committing an offence and liable to a special penalty.

7.15 The Conservation of Habitats and Species Regulations 2017 (as amended) has strengthened the protection of wild birds and their habitats. The Regulations now serve "To help preserve, maintain and re-establish habitats for wild birds."

7.16 Under the amended Regulations, Local Planning Authorities (as well as national statutory conservation bodies such as Natural Resources Wales) are required to protect and create bird habitat.

Badger

7.17 The Protection of Badgers Act (1992) makes it an offence to kill, injure, disturb or take a badger, or to damage or interfere with a sett without previously obtaining a licence from Natural Resources Wales (NRW).

7.18 The legislation states in Section 3:

A person is guilty of an offence if, except as permitted by or under this Act, he interferes with a badger sett by doing any of the following things—
(a) damaging a badger sett or any part of it;
(b) destroying a badger sett;
(c) obstructing access to, or any entrance of, a badger sett;
(d) causing a dog to enter a badger sett; or
(e) disturbing a badger when it is occupying a badger sett,
intending to do any of those things or being reckless as to whether his actions would have any of those consequences.

7.19 Within this legislation, if a sett is present on or near a development Site, a licence is needed to hand dig within 10 metres of the sett, to use light machinery within 20 metres of the sett or to use heavy plant machine digging within 30 metres of the sett.

Environment (Wales) Act 2016

7.20 The Welsh Government has made a commitment to reversing the decline in biodiversity in Wales and increasing the resilience of its ecosystems. This is in part fulfilled by the Environment (Wales) Act 2016 which introduces a new biodiversity duty, which highlights biodiversity as an essential component of ecosystem resilience.

7.21 Section 6 of the Act places a duty on public authorities to 'seek to maintain and enhance biodiversity' and 'promote the resilience of ecosystems' in the exercise of their functions. Section 7 places a duty on Welsh Ministers to identify lists of living organisms and types of habitat (priority habitats and species) in Wales that are of key significance to sustain and improve biodiversity in relation to Wales. Local Authorities have a duty to consider this list when considering planning applications, applying the principles of sustainable management of natural resources. The Section 7 list is a revised list of the Section 42 list in the Natural Environment and Rural Communities Act, 2006.

Well Being of Future Generations (Wales) Act 2015

7.22 The Well-being of Future Generations Act requires public bodies in Wales to think about the long-term impact of their decisions, to work better with people, communities and

each other, and to prevent persistent problems such as poverty, health inequalities and climate change.

7.23 The Act includes a number of key principals and resilience of ecosystems forms a core principle, it aims for '*A nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change (for example climate change).*'

National Policy/Legislation
Planning Policy Wales 11 (2021)

7.24 Planning Policy Wales (PPW) 11 states in 6.4.5 that Local Planning Authorities '*must seek to maintain and enhance biodiversity in the exercise of their functions. This means that the development should not cause any significant loss of habitats or populations of species locally or nationally and must provide a net benefit for Biodiversity*.'

7.25 Within this is incorporated the use of DECCA – Diversity, Extent Condition, Connectivity and Adaptability of ecosystems, factors used to measure Ecosystem Resilience. These Policies and other policies in Chapter 6 of PPW 11 relate to the requirements of the Section 6 Duty of the Environment (Wales) Act 2016.

Securing Biodiversity Enhancements

7.26 Planning Policy Wales Technical Advice Note (TAN) 5, Nature Conservation and Planning, provides advice on how the planning system should contribute to biodiversity protection and enhancement. TAN 5 recognises the importance of biodiversity and the enjoyment of it. TAN 5 requires Local Planning Authorities (LPAs) to protect and enhance biodiversity during the planning process and to encourage sustainable developments. It also requires LPA's to ensure that protected Sites are properly accounted for within the planning system.

7.27 The Chief Planning Officer sent a letter to LPAs (dated 23rd October 2019) following the refusal of a planning application. This letter has provided clarification on the Welsh Governments approach to Paragraph 6.4.5 of Planning Policy Wales 10 which sets out that "*planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means that development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity*".

7.28 The purpose of this letter was to clarify that in light of the legislation and Welsh Government policy outlined above, where biodiversity enhancement is not proposed as part of an application, significant weight will be given to its absence, and unless other significant material considerations indicate otherwise it will be necessary to refuse permission. Biodiversity enhancement therefore will need to be included in any future planning application.

7.29 A consultation is being undertaken on the strength of PPW 11 looking at targeted strengthening of the green infrastructure segments. The will replace the current

paragraph 6.4.5 with the following:
Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means development must work alongside nature and it must provide a net benefit for biodiversity and improve, or enable the improvement, of the resilience of ecosystems.

Neath Port Talbot (NPT) Council Policies

7.30 Strategic Policies SP14 and SP15 are relevant to development in the NPT countryside and coastal areas. Of particular importance is EN7, Important natural features, in SP15.

7.31 Policy EN7 aims to control development that affects the ability of the countryside to cope with unrestricted development. The introduction to Policy EN7 is given below:
Policy EN 7 Important Natural Features:
Development proposals that would adversely affect ecologically or visually important natural features such as trees, woodlands, hedgerows / field boundaries, watercourses or ponds will only be permitted where: 1. Full account has been taken of the relevant features in the design of the development, with measures put in place to ensure that they are retained and protected wherever possible; or 2. The biodiversity value and role of the relevant feature has been taken into account and where removal is unavoidable, mitigation measures are agreed.

8 RECOMMENDATIONS

8.1 An Ecological Clerk of Works (ECW) will be appointed for the duration of the project.

Bats

8.2 Mature trees should be retained where safe and possible to do so. If any mature trees are identified for removal they may need to be further assessed for the presence of bats. Should any animals be found at this stage the works will be halted whilst advice is sought from NRW on how best to continue. In this instance, it is likely that a development derogation licence will be needed.

8.3 All trees that are considered to be of medium potential to support roosting bats must be re-inspected where affected, specific recommendations for these trees, i.e. further climbing survey or felling instructions, are given in Table 4.

8.4 Retention of commuting routes are important to retain connectivity across the Site. These measures will help retain areas of the Site important for commuting and foraging bats. The south eastern boundary will be replanted to form a hedgerow connection to the open countryside from the existing estate. It will consist of species typical in local hedgerows including hazel, hawthorn, holly and blackthorn. All species should be of local provenance.

8.5 The northern area of the development where the current access drive is located, will remain unlit, or have low intensity and directional downlighters conforming to the requirements of BCT Technical Note 08/23. As much of the existing woodland as possible will remain and be protected against intrusion. This is to allow a dark secluded area to remain as a mating area.

8.6 Artificial lighting and spill into the surrounding areas and retained habitats may present a significant impact upon nocturnal wildlife using the Site, in particular bats. If artificial lighting is to be utilised a predicted illuminance contour map (lux plots) should be produced and a methodology for reducing light spill into the neighbouring habitats to less than 1 lux if possible (i.e. by use of baffles). If this lux level cannot be achieved, further measures must be investigated to reduce light spill impacts.

8.7 Illuminance surveys should be undertaken by an appropriately qualified engineer and accord with the survey guidance presented in the Bat Conservation Trust guidance note 08/23 of 2023. The use of ‘bat friendly’ lighting (wavelengths above 550 nano metres) should be used for any street lighting employed.

8.8 The use of personal security lighting on any housing should be discouraged, possibly by the provision of low level lighting being provided on the new properties should they back onto the retained areas and adjacent habitats. A close boarded fence barrier should also be considered near the retained habitats to assist in prevention of rubbish dumping and disturbance of those areas.

8.9 Further survey is required to properly assess impacts on bats from the demolition of a house on beacons View to provide access to the Site.

Reptiles

8.10 A translocation exercise is necessary on part of the Site to allow the development to proceed. Where possible, the animals will be kept on the Site. An Ecological Clerk of Works (ECW) will be appointed for the duration of the project.

8.11 On the southwestern boundary, habitat manipulation will be used to encourage animals to leave the Site to the south facing slope where improvements will be made for them in the bramble dominated area, see Figure 5. It should be noted that slow worm are very successful in even dense bramble. Improvements here will involve some opening up of the bramble habitat and, depending on the nature of the ground, provision of hibernacula if necessary. Reptile proof fencing will be employed to constrain movement of animals when manipulation occurs encouraging them to move away from the construction plateau.

8.12 To the housing boundary at the north east of the Site, habitat manipulation is not possible. Here a translocation exercise will be necessary. A potential permanent receptor area has been identified and is currently under investigation. Works to improve and increase capacity will be undertaken following survey, the Site is under no threat from planning and will provide a feature for increasing biodiversity, it is approximately 0.5 hectares in size.

8.13 Capture methods will follow guidelines from the Herpetofauna Groups of Britain and Ireland (1998). As it is difficult to accurately assess population levels, it is recommended that a high level population (>100 slow worms a) is assumed which calls for 100 refugia per hectare to be placed for trapping. Capture will be dependent upon weather conditions. The proposed capture area is approximately 0.7 hectares, the majority of the development area.

Site preparation and Capture

8.14 The Site will need to be secured against casual entry. The use of herras fencing is recommended. The capture area is shown in Figure 5.

8.15 Vegetation clearance on the capture boundaries will take place prior to erection of reptile fencing. The first cut should only be to a height of 12cm, to expose the ground. A cut at this height will not cause injury to reptiles but may also expose any suitable features attractive to reptiles (i.e. for hibernation) that can be dismantled or moved by hand. This cut can take place at any time, although the bird nesting season (March to September, should be avoided).

8.16 Following this, the vegetation can be cut to ground level in suitable weather conditions when the animals are active. This is nominally April to October but very weather dependant.

8.17 One way reptile proof fencing will be erected to isolate the capture area to prevent animals migrating into the Site as clearance takes place. In this instance it is envisaged that fencing will be erected along the western boundary of the development area.

8.18 Refugia mats will be laid out at a density higher than recommended in the acknowledged literature (para 8.9). Refugia will be left in place for a minimum of 14 days before capture begins. The use of around 200 mats is considered to be a minimum number for this Site and they will be focussed on the Site boundaries where survey found positive results.

8.19 Capture will be undertaken in suitable weather conditions as described in the referenced published guidance but also after showers if the mats are warming in sun. Capture of the animals will be undertaken only by the ECW or suitably experienced personnel under the charge of the ECW.

8.20 Capture of animals under/on felts will be undertaken for a minimum period of 20 days. The Site will be considered to be cleared when five consecutive days negative checks have occurred. Twenty days capture effort is the absolute minimum number of days. If five consecutive days without capture are not achieved, or animals are caught after day 15 to 20 a longer capture period than 20 days will be necessary until five clear days is achieved. The best periods for capture are between mid-March and June and from late August to late September, an early capture period is recommended to avoid the years live young. However, capture can take place across the activity period.

8.21 If after 25 days a five day clear period is not achieved and only low levels of animals are being removed a destructive search, supervised by the ECW will take place if the catch rate has plateaued or is showing zero returns and occasional low numbers.

Translocation:

8.22 Captured animals will be moved to the receptor site with minimal delay, normally directly after capture.

8.23 Final clearance of surface vegetation to bare ground following clearance of reptiles can then take place under ecological supervision in appropriate weather conditions.

8.24 Clearance to ground and earth moving of the area where habitat manipulation is being undertaken will also be undertaken under supervision of the ECW.

8.25 A Reptile Mitigation Strategy detailing the proposed methodology and the receptor area should be produced and agreed by the LPA Ecologist prior to commencement.

General and Biodiversity Enhancements

8.26 Immediately prior to commencement of works an assessment of the Site and surrounding area will be made for the presence of badger setts. Should there be evidence of setts, a development licence may be required for any works taking place within 30 metres of the setts.

8.27 An area will be identified during the construction phase where chemicals and building materials can be safely stored and bonded to prevent contamination of the adjacent habitats. Measures to prevent and deal with any pollution incidents will be clearly outlined in a Construction Environmental Management Plan (CEMP) as will measures to be undertaken to protect the adjacent habitats. An onsite senior staff member will be tasked with ongoing supervision of the CEMP.

8.28 Wherever possible existing trees should be retained. Tree roost protection zones (RPZ) will be outlined for retained trees and will comply with BS 5837:2012 – Trees in relation to design, demolition and construction.

8.29 Any landscaping plan should introduce native species reflecting those present in the local area (all native species should be of local provenance) and be suitable for enhancing prey items for bats (invertebrates).

8.30 All gardens bordering retained habitats should be closed board fenced. Hedgehog passes must be constructed into the fence bases as closed fencing can isolate areas of garden, particularly impacting on hedgehog travel. Boards will be cut out to give a minimum 15x15cm gap at the bottom, or more preferably be fitted to leave a minimum 15cm gap at ground level for the length of the fence.

8.31 Improvements to the existing dense bramble area should be made to create open ‘glades’ and maintained as such to improve the retained area for birds and any remaining reptiles in particular. A stand of Japanese knotweed is present within this area and should be treated in accordance with accepted methodologies. This area should then be tree planted with a mixture of shrubs, i.e. hazel, hawthorn and holly and trees. Common oak would reflect nearby native canopy species.

8.32 Integral bat and bird boxes will be used in the new construction. Bat tubes will be located on buildings near the western and southern Site boundaries and bird boxes, in particular swift and house sparrow boxes on a number of houses throughout the development.

9 CONCLUSIONS

9.1 The surveys have shown four species of bats using or overflying the Site and that it supports a potentially ‘good’ or better population of slow worms.

9.2 Bat use of the Site appears limited but will be impacted by the proposed scheme. Recommendations are made to mitigate and compensate this allowing bats to continue to use the Site and |commute across it.

9.3 There will need to be further bat surveys on the house that is to be demolished to allow access to the Site.

9.4 A reptile translocation is likely to be required alongside manipulation of habitat and movement of animals to a retained area in Site. A suitable receptor area for reptile translocation has been identified and is currently under survey. A programme of enhancements will be made before any animals are relocated.

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FIGURE 1
BAT ACTIVITY TRANSECT ROUTES
(Example from second Transect Survey of July 2023)

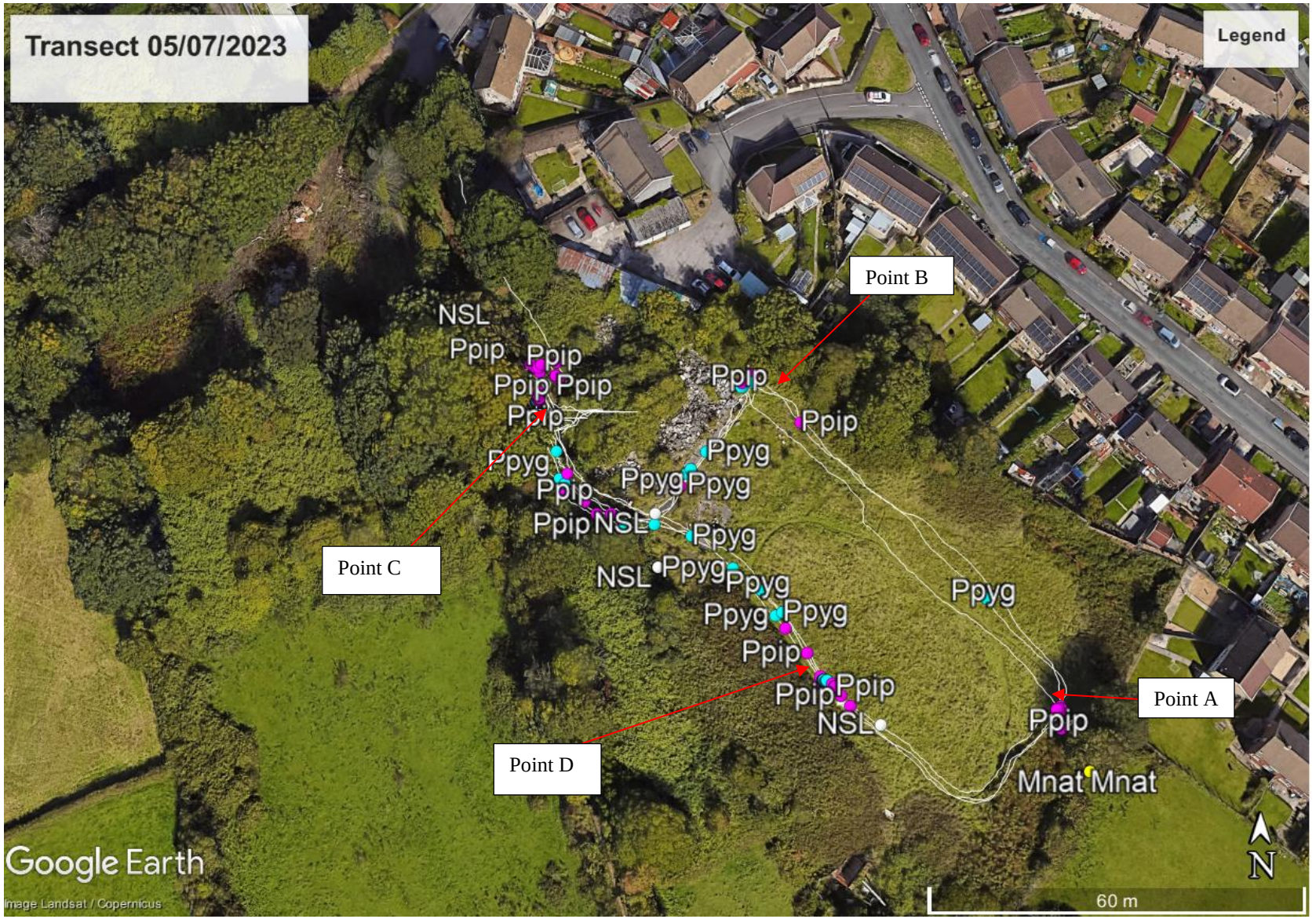

Transect 05/07/2023
Legend
Point A
Point B
Point C
Point D
NSL
Ppip
Ppyg
Mnat
Google Earth
Image Landsat / Copernicus
60 m
N

FIGURE 2:
LOCATIONS OF PASSIVE DETECTORS

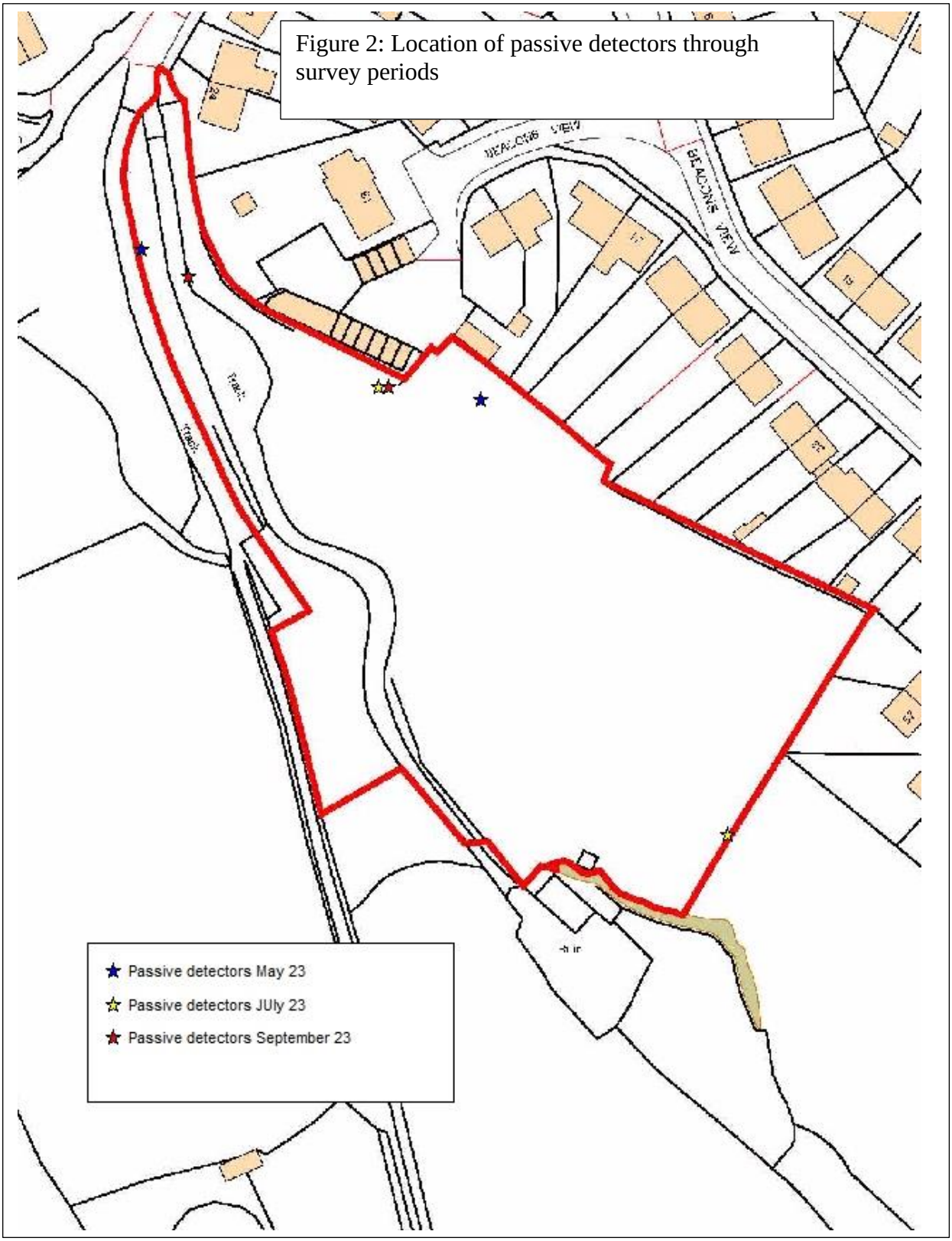


Figure 2: Location of passive detectors through survey periods

FIGURE 3
APPROXIMATE LOCATIONS OF TREES ASSESSED FOR BAT ROOST POTENTIAL

Figure 3: Approximate Location of Trees Assessed in Ground Level PRA

FIGURE 4
APPROXIMATE LOCATIONS OF REPTILE REFUGIA AND POSITIVE LOCATIONS

Figure 4: Location of Reptile Refugia.
Survey results over survey period shown in colour coded Circles (representing total under mat over 7 visits)

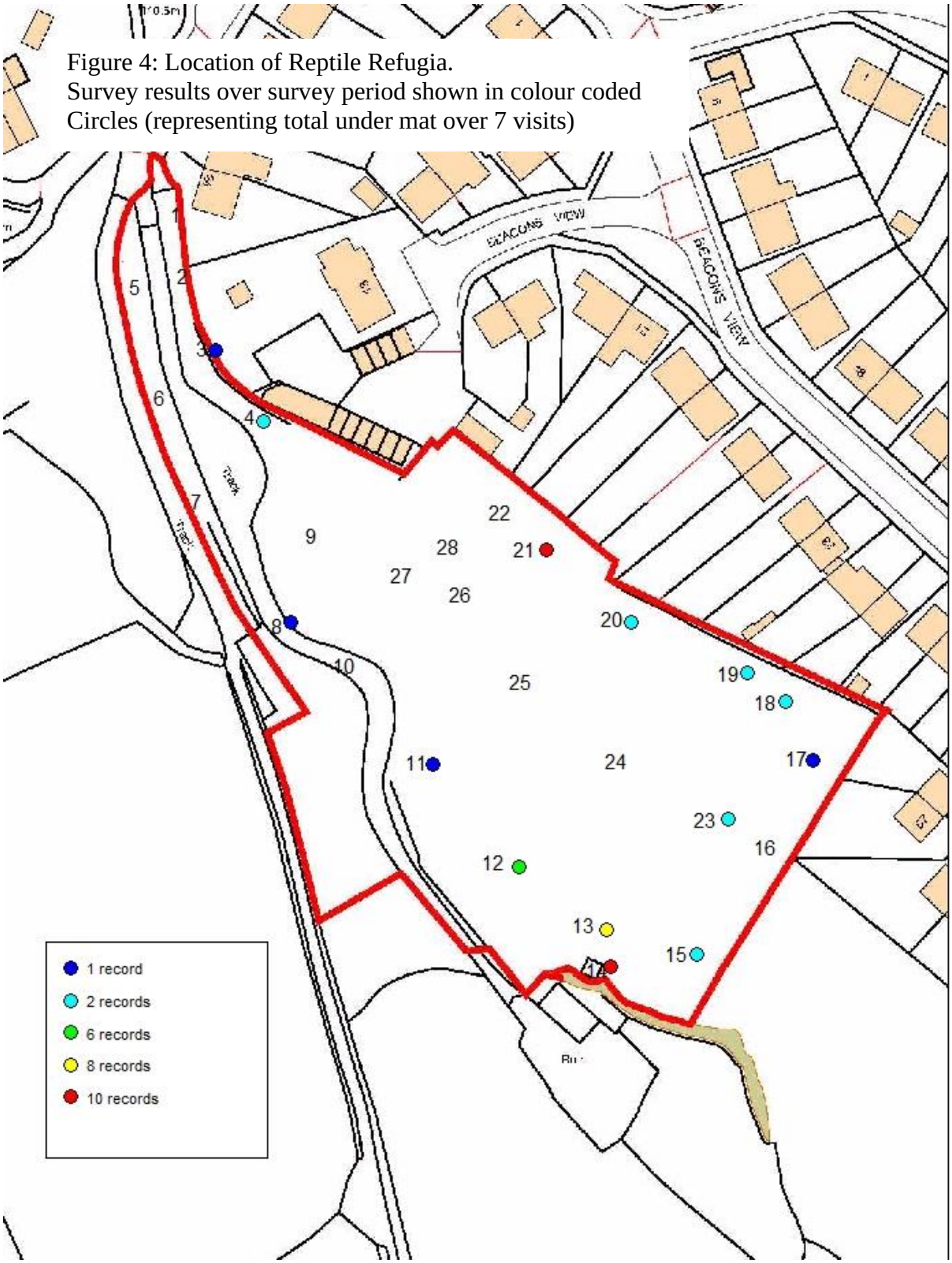
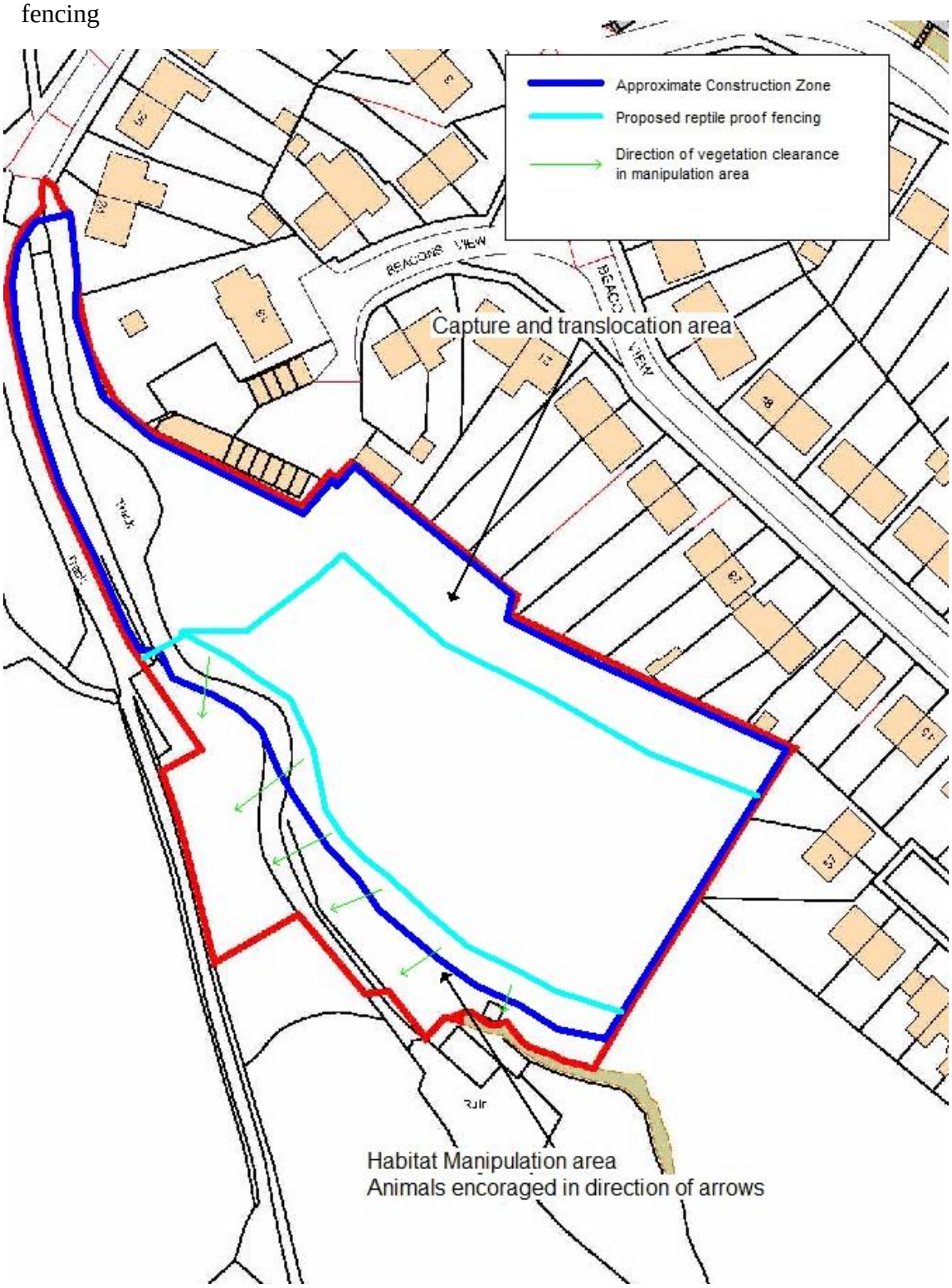
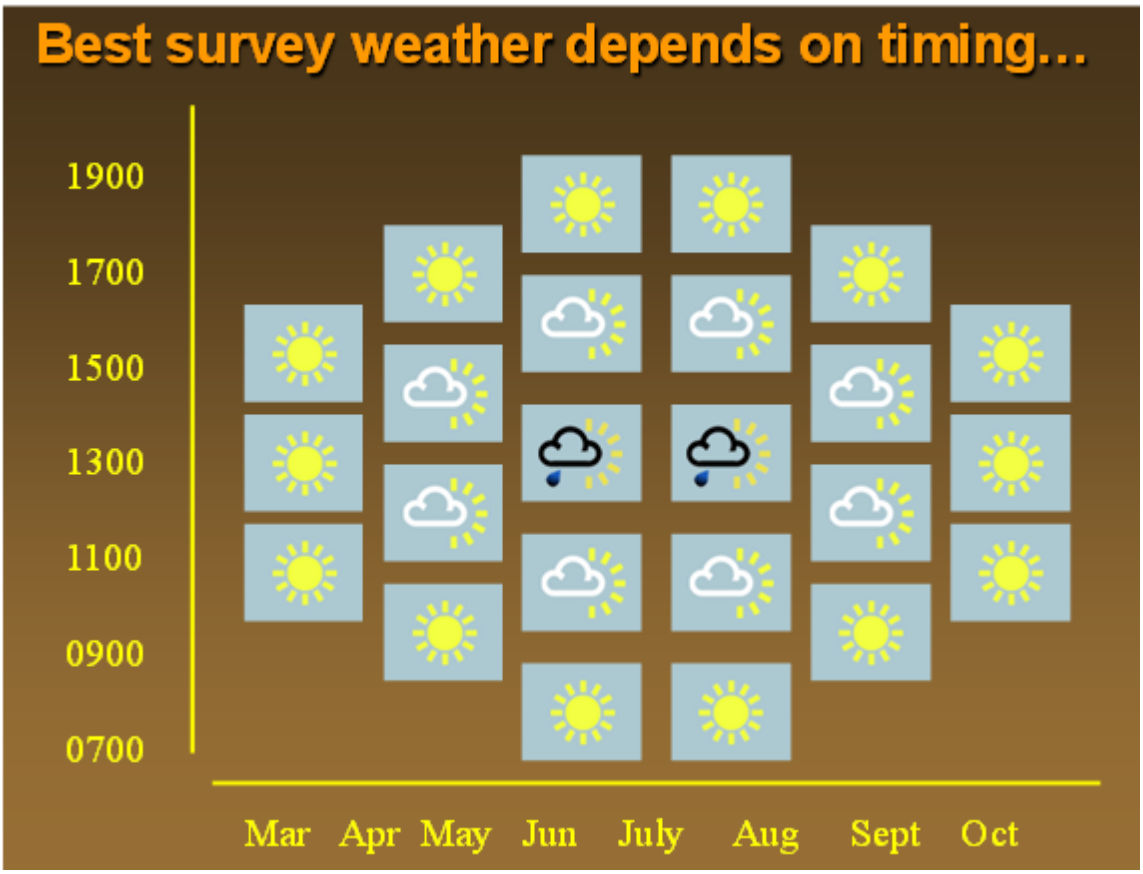


FIGURE 5
PROPOSED REPTILE CAPTURE AREA AND REPTILE PROOF FENCING

Figure 5: Capture area and proposed reptile proof fencing



APPENDIX 1
SUITABLE SURVEY CONDITIONS


Best survey weather depends on timing…
1900
1700
1500
1300
1100
0900
0700
Mar
Apr
May
Jun
July
Aug
Sept
Oct

APPENDIX 1
PHOTOGRAPHS

Typical views of the Cypress in the access drive

Horse chestnut 1824

Horse chestnut 1825

Horse chestnut 1826

Sycamore 1841

The horse chestnuts and Cypress trees on the access drive

Group of sycamore and hawthorn on eastern boundary (G4)

Common oak and beech on southeastern boundary

Looking to G3 across open grassland

Slow worms under refugia during survey

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