DEACON LANDSCAPES, WOOTON, KENT

ECOLOGY
REPTILE PRESENCE OR ABSENCE SURVEY, BAT EMERGENCE SURVEY AND BAT ACTIVITY SURVEYS

ISSUE 1
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SUMMARY

1. During April 2015 LaDellWood were commissioned by to undertake a Phase 1 Habitat Survey at the site as a result of the Phase 1 Habitat Survey further protected species surveys were recommended to fully assess the status of bats and reptiles at the Deacons landscapes site. This report provides details of protected species surveys for reptiles and bats at the site and where required provides further recommendations for species specific mitigation, compensation or enhancements works at the site.

2. A total of three walked bat activity transect surveys were undertaken at the site to identify key areas of the site used by foraging and commuting bats. In addition a single dusk emergence survey was completed on the office building, to identify the presence or absence of roosting bats within the building. All surveys were completed during May and September 2015.

3. The Reptile Presence or absence survey included a series of seven site visits to check under artificial reptile refugia positioned within suitable habitat areas across the site. All surveys were completed during May, June and July 2015

4. The bat activity surveys confirmed low to moderate levels of foraging and commuting bat activity at the site with a minimum of four species recorded at the site. No bats were recorded emerging from the office building. Mitigation and enhancements measures have been recommended for foraging and commuting and roosting bats at the site.

5. During the reptile survey grass snake and slow worm were recorded at the site. The low numbers of reptiles recorded are considered to represent a low population of grass snake and low population of slow-worm utilising habitats to the east of the site. Mitigation and enhancements measures have been recommended for common reptiles at the site.

CONTENTS

1.0 Introduction

Background

1.1 LaDellWood have been commissioned to undertake a reptile presence/absence survey, bat emergence survey and bat activity surveys at the Deacon Landscapes Site in the context of a planning application to develop the site for housing. The initial Phase 1 Survey of the site was undertaken by LaDellWood during April 2015, during the survey the site was considered suitable for reptiles and bats, and subsequently further surveys were recommended at the site.

Scope of the Report

1.2 This report details the results of the ecological survey as a reptile presence/absence survey, bat emergence survey and bat activity surveys, assesses the results and recommends any actions necessary to satisfy statutory guidance, National legislation (**see Table 1.9**) and the requirements of National Planning Policy Framework (NPPF), 11: Conserving and enhancing the natural environment; and recommends mitigation measures where these are required.

Site Context and Status

1.3 The habitat on the site consists of buildings, hard standings, bare ground, improved grassland, hedgerows & trees, scattered trees and plantation woodland.

1.4 The Deacon's Landscape site is approximately 2.3 hectares in size and located in a rural position within the village of Wootton, Kent. Access to the site is via Wootton Lane which runs south from Wootton Village. The Site is surrounded arable farmland and improved grassland fields. A network of hedgerows surrounds the site extending east to small areas of woodland. The site is located at NGR TR 223 460

Ecologists

1.5 The site surveys were led by Andrew Bodey BSc hons ACIEEM. The report was also prepared by Andrew Bodey BSc hons ACIEEM, bat licence Level 2, (2015-13096-cls-cls) who has over five years' experience of ecology practice. The report was checked by Tom La Dell MA (botany), MCIEEM, CMLI who has over forty years experience in ecology practice

Site Proposals

1.6 The site proposals include the construction of residential properties and associated access road, gardens and parking.

2.0 Methodology

Reptile Presence Absence Survey

2.1 The reptile presence absence survey followed methodologies set out In Herptofauna workers manual (Gent and Gibson, 1998) and Frog life Advice sheet 10 – Reptile Survey (Frog life 1999). A series of seven site visits were undertaken to check under artificial reptile refugia positioned within suitable habitat areas across the site. A total of 40 refugia were distributed around the site on 7th May 2015 within suitable areas of reptile habitat (**see map 1**). All surveys were completed during May, June and July 2015 and each visit was undertaken in periods of suitably warm weather when reptiles were considered to be active. The timings and weather conditions for each survey are provided in **table 1.1**

Table 1.1: Reptile Survey Dates, Timings and Weather Conditions		
Survey Date	**Survey Timing**	**Survey Weather**
12/06/15	13:00 – 13:30	20 °C, 10%CC, Dry, light E breeze
15/06/15	14:14 – 14:45	17°C, 10%CC, Dry, Light NE
19/06/15	14:20-14:50	16°C, 90%, Dry, Moderate NW
29/06/15	12:00 – 12:34	20°C, 90%CC, Dry, Light SW
29/07/15	10:30-11:0	16°C, 60%CC, Dry Light breeze
28/08/15	11:40-12:10	20°C, 90%CC, Dry, Light SW breeze
03/09/15	10:10– 10:25	15 °C, 60%CC, Dry, light breeze

Bat Activity Survey

2.2 A total of three walked bat transects were undertaken at the site to identify key areas of the site used by foraging and commuting bats. The surveyors walked a predefined transect route stopping to listen and record bats for 12 minutes at 8 point count locations (see **map 3**). During the survey the start and finish time of each walked section and point count were recorded. Bat species and the number of passes of each species were also recorded for each walked section and point count.

2.3 Each survey commenced 15 minutes prior to sunset and ran for approximately 1 hour and 45 minutes after sunset, One survey comprised of a dusk transect followed by a dawn transect (counted as 1 survey). The dawn transect began 2 hours before sunrise and ended at sunrise. The transect methodologies and survey effort generally followed guidance set out in Bat Conservation Trust Guidelines (Hundt 2012). During the survey equipment used included a batbox Griffen time expansion bat detector and a wildlife acoustics EM3 bat detector. Bat calls were later analysed using sonobat sound analysis software. Weather conditions were recorded during the survey, air temperatures were recorded using the bat box griffens in built temperature sensor. The timing and weather conditions of each survey are provided in **Table 1.4** below.

Bat Emergence Survey

2.4 A single dusk emergence survey was completed on the office building, to identify the presence or absence of roosting bats within the building. Two suitably experienced surveyors were positioned at suitable locations (**see map 4**) to ensure that potential roosting features were visible on the building at the site. The surveyors watched and listened and recorded all bat activity at the site. The dusk emergence survey commenced 15 minutes prior to sunset and ran for approximately 1 hour 45 minutes after sunset. The surveys consisted of a single dusk emergence survey, an appropriate level of survey, In line with Bat Conservation Trust Guidelines (Hundt 2012). During the survey equipment used included Wildlife Acoustics EM3 detectors and a batbox Griffen detector. Timings and weather conditions of the survey are provided in **Table 1.2** below

Table 1.2: Bat Activity Survey Dates, Timings and Weather Conditions		
Survey Date	**Survey Timing**	**Survey Weather and sunset/sunrise time**
15/05/15	21:00 – 23:00	Start temp: 14°C Finish temp: 15°C 20%CC, Dry, Light E Sunset:21:12
29/07/15	20:40 – 22:30	Start temp: 18°C Finish temp: 19°C 30%CC, Dry, No Wind Sunset:20:53
31/08/15	19:30 -21:33	Start temp: 16°C Finish temp:12 °C 100%CC, light rain shower, Mod NW Sunset:19:45
01/09/15	04:07 – 06:07	Start temp: 13°C Finish temp:14 °C 100%CC, Dry, Mod NW Sunrise:06:07
Dusk emergence 07/08/15	20:15 – 22:30	Start temp: 19°C Finish temp: 17°C 90%CC, dry , Light SW breeze, Sunset:20:31

Limitation

2.5 The surveys were undertaken within the bat activity survey period set out by BCT best practice guidelines (Hundt 2012), which runs from April-October with the optimal period May - August. Meteorological conditions were seasonally optimal and bats were considered to be active at the time of survey, all surveys were undertaken during temperatures of 10^{o}C or above, as bat activity can decrease below this temperature. The surveys were undertaken during optimal months of May, July and August. activity during early survey season (April) and late survey season (late September – mid October) was not sampled, however the results are considered to be representative of bat activity at the site and findings are considered sufficient to assess likely impacts of the proposals in support of this planning application.

2.6 Where possible call analysis was completed to a species level, however some calls and species of the *Myotis* genus can be hard to distinguish in these cases calls were identified to a genus level. Some species of bat such as brown long eared bats are often under recorded due to their quiet echolocation calls not registering on bat recording equipment.

2.7 The findings of this report represent the opinion of a professional and suitably qualified ecologist they do not constitute professional legal advice. The client may wish to seek further legal interpretation of wildlife legislation cited in this document.

3.0 Results

3.1 This section provides details of the results of the reptile survey, bat activity surveys and bat emergence survey at the site. Location of recorded reptile and bat activity is shown on **Map 2, & 4**.

Reptiles

3.2 **Table 1.3** below provides details of the results of each survey undertaken at the site. No reptiles were recorded during survey visits 4, 5 and 7. A single adult grass snake was recorded on survey visit 1 and peak counts of two adult slow-worms were recorded during visit 2 and visit 6.

Table 1.3: Reptile Presence or Absence Survey Results																
Survey Date	**Survey visit**	**Common Lizard**				**Slowworm**				**Grass Snake**				**Adder**		
		M	**F**	**J**	**U**	**M**	**F**	**J**	**U**	**M**	**F**	**J**	**U**	**M**	**F**	**J**
12/06/15	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
15/06/15	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
19/06/15	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
29/06/15	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29/07/15	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28/08/15	6	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
03/09/15	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3.3 **Table 1.4** below provides details of the population assessment guidance (Froglife, 1999). Populations are classed as either low, good, or exceptional.

Table 1.4: Reptile Population Assessment Criteria (Froglife,1999)			
Reptile Species	**Low Population**	**Good Population**	**Exceptional Population**
Common Lizard	<5	5-20	>20
Grass Snake	<5	5- 10	>10
Slow-worm	<5	5-20	>20
Adder	<5	5-10	>10

3.4 Based on the above Population assessment criteria the site supports a low population of grass snake.

Dusk Emergence Bat Survey

3.5 As a result of the preliminary bat survey (see the LaDellWood Deacons Landscape Phase 1 Habitat Survey Report) a further emergence bat survey was recommended for the office building located at the site. Survey positions are shown on **map 3**.

Dusk Emergence Survey 07/08/15 – Roosting bats

3.6 During the dusk emergence no bats were recorded emerging from the building.

Dusk Emergence Survey 07/08/15 – Foraging and commuting bats

3.7 During the dusk emergence survey a total of two bat species were recorded foraging and or commuting at the site. The majority of bat activity was of common pipistrelle bats with a single pass from an unidentified *Myotis* bat.

Common pipistrelle bat: During the survey a total of 4 common pipistrelle registrations were recorded at survey position 1 to the east of the building. The bats were recorded foraging and commuting over the building and hardstanding areas with the first bat recorded at 20:50 and the last bat at 21:27. A total of 1 common pipistrelle registration was recorded to the south west of the building from survey position 2 at 20:53. The bats were seen commuting along the road heading south to north.

***Myotis* bat species**: An unidentified *Myotis* bat was also recorded at survey position 2 at 21:26, the bat was seen heading south to north following the road.

Bat Activity Survey

3.8 During the transect surveys a confirmed total of five bat species were identified commuting or foraging at the site. *Myotis* bat species that could only be identified to genus level were also recorded.

Species recorded at the site included the following:

- Unidentified *Myotis* bat species
- Common pipistrelle bat
- Brown long eared bat

Earliest Bat Species Record

3.9 This section details the location and earliest record of bat species recorded at the site. This data can provide valuable information as to the likelihood of nearby roosts. Certain bat species typically

emerge from roosts at certain time after sunset as described below. **Table 1.5** below details the earliest records of each of the bat species at the site during each dusk survey.

Myotis bat species: These species can typically emerge between 25-60 minutes after sunset time

Common pipistrelle: This species can typically emerges between 20-30 minutes after sunset time

Brown long eared bat: This species can typically emerges between 40-60 minutes after sunset time

Table 1.5: Earliest Bat Records

	Sunset Time	Common Pipistrelle	Brown Long Eared	Unidentified *Myotis* species
15/05/15	21:12	21:46 Recorded at Walk C	-	22:46 Recorded at Point Count 3
29/07/15	20:53	21:04 Recorded at Walk B	22:12 Recorded at Point Count 8	-
31/08/15	19:45	20:03 Recorded at Point Count 3	-	-

Bat Activity Levels

3.10 **Table 1.6** below details the Activity levels of the different bats species at the site based on bat passes across the three surveys. The most frequently encountered bat species at the site was Common pipistrelle with occasional pass from brown long eared bat and unidentified *Myotis* bat species

Table 1.6 Bat Activity passes per survey

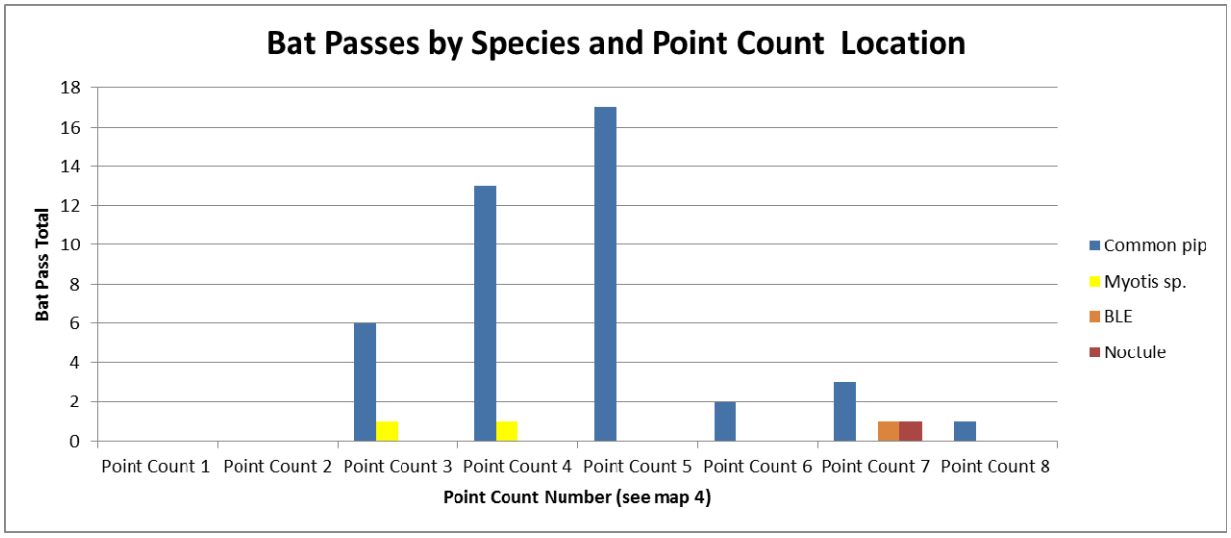
	Common Pipistrelle	Brown long eared bat	Myotis species
15/05/15	9	0	0

29/07/15	24	1	2
31/08/15	12	0	0
01/09/15	5	0	0
Total	50	1	2

Bat Activity Locations

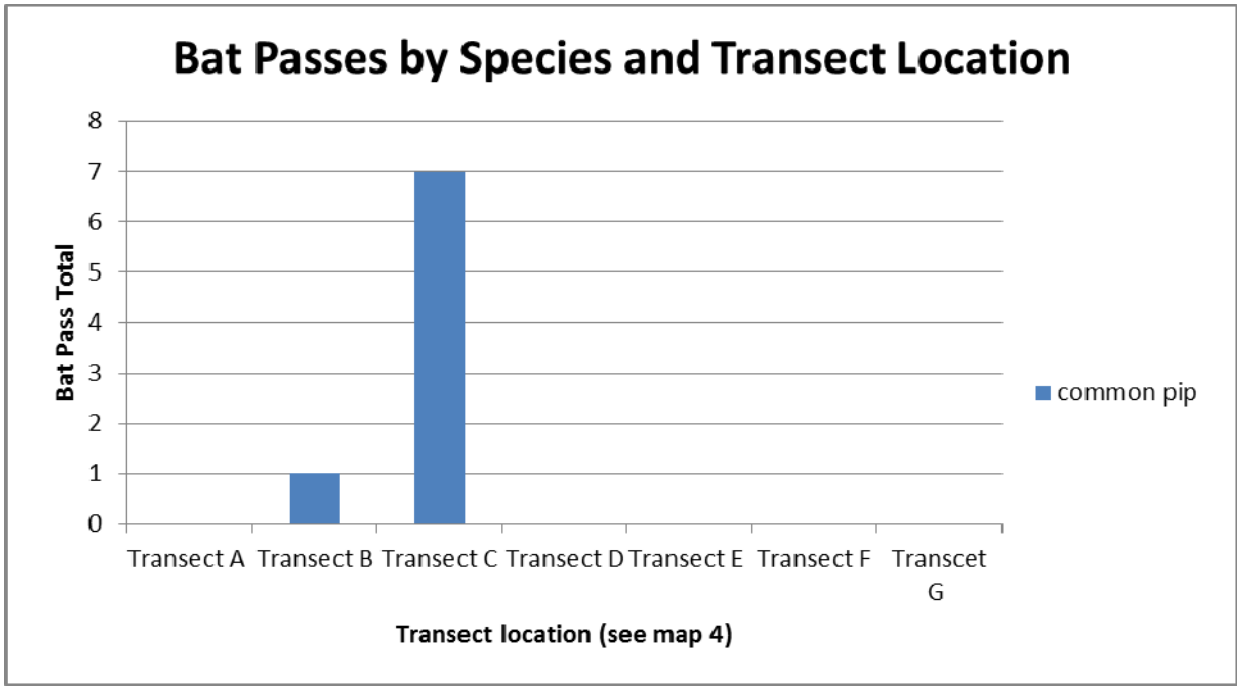
3.11 This section provides details the location of activity recorded at the eight point count and eight transect surveyed across the site. **Map 4** shows the location of point counts and transects in relation to habitats at the site and provides further detail of location and frequency of bat passes for species at the site.

Graph 1.0 below details of number of Bat passes per species at Point Counts 1-8 across the three activity surveys. The highest levels of activity were recorded at Point count 5, to the south of the site, with a total of 17 bat passes. Point count 4, located along the eastern boundary, recorded a total of 14 passes followed by Point Count 3, also located along the eastern boundary, with 7 bat passes. Point Count 6 recorded five bat passes and Point count 7 and 8 recorded one bat pass at each point count. There were no bat passes recorded at Point Count 1.



Graph 1.0: Bat passes by species showing point count location

Graph 2.0 below details of number of Bat passes per species at transects A-G across the three activity surveys. The highest levels of activity were recorded at along transect C located to the east of the site and a single pass was recorded at transect B. There were no bat passes recorded along transect A, and D – G.



Graph 2.0: Bat passes by species showing transect location

4.0 Protected Species and Habitat Assessment

4.1 The survey results on site were assessed allowing consideration of the likely impacts of the development on reptiles and bats at the site. **Table 1.7** assesses species and habitat present at the site and discusses the likely impact of the development.

Table 1.7: Assessment of the potential impact on Bat and Reptiles and their habitats within and adjacent to the development site			
Species/habitat	Main Legislation and policy	Species and Habitat Assessment	Likely Impact of Proposals
Common Reptiles	Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended).	During the Phase 1 Habitat survey the habitats on the site were considered suitable for supporting reptiles. Further Reptile presence or absence	Suitable reptile habitats at the site will be lost during the proposed development. In the

		surveys were undertaken at the site. The seven survey visits undertaken at the site recorded a **low population** of grass snake, with a single individual recorded on one occasion, and **a low population** of slowworm. Considering The location of records at the site are shown on **see map 3**.	absence of mitigation there is potential for **high impacts** on low numbers of reptile present the site through injury and killing during clearance works with machinery. Further recommendations for mitigation have been given in **section 5.0**.
Bat – Emergence Survey	Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended). Schedule 2 of the Conservation of Habitats and Species Regulations 2010.	During the emergence survey at the site no bats were recorded emerging from the building at the site. Low levels of foraging and commuting activity were recorded.	As no bats were recorded emerging from the highlighted potential roost features it is considered the proposed works will have **no significant impact** upon roosting bats at the site.
Bats – Activity Surveys	Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended). Schedule 2 of the Conservation of Habitats and Species Regulations 2010.	During the Phase 1 habitat survey at the site habitats were considered suitable foraging and commuting bats Further bat activity surveys were undertaken at the site. The bat species with the highest activity levels at the site was common pipistrelle. An unidentified *Myotis* bat species, Brown long eared bat and noctule bat were recorded occasionally. Bat activity at the site was considered to be of low – moderate levels. Bats were recorded foraging and commuting throughout the majority of the site with highest levels of activity located to the east of the site. Habitats located to the east and south of the site include mature hedgerows with mature trees which offer sheltered, dark areas that are utilised by local bat population. The southern and eastern boundary hedgerows are likely to offer connectivity to habitats	The activity surveys at the site confirmed habitats at the site are utilised by low - moderate numbers of foraging bats with a minimum of four different species. Activity was generally low, centrally within the site and to the west and north of the site. High levels of activity were located along the eastern and southern boundaries within the west of the site. In the absence of mitigation it is considered there is potential for **moderate impacts** through lighting of retained trees and boundary hedgerows at the site. Further recommendations for mitigation have been

		to the south and north of the site. **Map 4** provides the detail of the combined results of the activity transects. Early registrations of common pipistrelle, soprano pipistrelle, brown long eared and an unidentified *Myotis* sp. bats were recorded at the site during the survey visits. The early registrations suggest these bats may roost nearby. Whilst no bats were recorded roosting within the on site building numerous suitable roosting locations are likely to be present within buildings associated with the village of Wootton to the north of the site.	given in **section 5.0**.

5.0 Recommendations

Common Reptiles

5.1 The proposed development will impact upon the areas of tall ruderal and rough improved grassland and refuse supporting low population of grass snake and slow-worm. To avoid injury and killing of reptiles during the proposed works the following actions will be undertaken at the site.

Habitat Creation

5.2 Areas of managed improved grassland bordering the eastern boundary will be allowed to develop into rough sward creating suitable areas of habitat for reptiles. The installation of wood habitat piles within these areas will provide suitable basking areas for reptiles and provide places to seek refuge during the hibernation period.

5.3 **Translocation**

Prior to habitat manipulation works small scale translocation works will be undertaken on small areas recorded as supporting low numbers of slow-worm and a single grass snake. This will involve the trapping of animals on daily visits to check beneath laid reptile refugia. It is considered a minimum of 10 trapping days between March-October is adequate for this site, the translocation trapping should cease after five clear days of trapping within suitable weather conditions of between 10 and 20^0C.

High density refugia (100 per hectare) will be laid. Reptiles caught will be immediately released into retained hedgerow habitats to the north east of the site minimising stress to the animals (**see map 5**).

Habitat Management

5.4 Following translocation small areas of suitable grassland and ruderal habitats (**see map 5**) supporting slowworm and grass snake will be strimmed under the inspection of a suitably qualified and experienced ecologist during between April and September when reptiles are considered to be active. The areas will be cut to a height of approximately 15cm. This height will ensure reptiles are not injured or killed if present. The reduction in available cover and disturbance will encourage any remaining animals to disperse but leave enough cover to sustain and protect low numbers of reptiles that may not disperse through this persuasive method. Vegetation will be cut during two visits to the site. The initial visit will be undertaken after 5 days of trapping and translocation, the reduction of habitats will concentrate remaining reptile within areas of retained habitat and increase trapping efficiency. Following five clear trapping days the remaining vegetation will be cut with arisings removed to another part of the site. Vegetation will be systematically cut in strips so as to encourage persuasive dispersal of individuals towards habitats located within the boundaries of the site. Following the final vegetation cut the site will be left for a period of seven days to allow animals to disperse. During the habitat manipulation works reptile refugia tiles will be placed within suitable habitats to provide refuge for disturbed reptiles, any reptiles caught beneath refugia will be translocated to the receptor area to the east of the site.

Destructive Search

5.5 On a completion of habitat manipulation works remaining vegetation will be stripped under the inspection of an ecologist between the moths of April and October during which time reptiles are considered to be active. Before site clearance a site walkover will be undertaken by a suitably qualified and experienced ecologist. Any suitable reptile refuges located at the site, such as log and stone piles, brash piles, will be removed by hand. Following the site walkover remaining vegetation will be cleared under the inspection of the appointed ecologist during suitably warm and dry weather conditions when reptiles are active. Vegetation will be cleared using an excavator with low ground pressure. A toothed bucket will be used to systematically and carefully rake through the first few inches of topsoil at the site, the use of a tooth bucket can reduce the risk of injury and killing to reptiles that may be present within cracks or small mammal burrows within the ground. The ecologist will inspect works until all habitats suitable for reptiles have been removed or sufficiently destroyed

so as to be no longer suitable for reptiles. All arisings will be stored away from suitable surrounding habitats so as to discourage reptiles from re-entering the site

Post development Receptor site management

5.6 To ensure a suitably thick grassland sward is retained for reptiles the receptor area should have a sensitive management regime of no more than two cuts between March and September. The installation of wood habitat piles within these areas will provide suitable basking areas for reptiles and provide places to seek refuge during the hibernation period.

Bats

5.7 Low to moderate levels of bat activity were recorded at the site with highest levels of activity recorded to the eastern and southern boundary of the site between Point Counts 3-5 (**see map 4**). The following mitigation strategy will retain, protect and enhance areas of suitable bat roosting, foraging and commuting habitat at the site.

5.8 Removal of trees will be required within the site however existing boundary hedgerows and trees to the south, east and west will be retained. It is recommended further native species plantings are undertaken at the site to mitigate any loss off tree or hedgerow cover within the site. The eastern and southern hedgerows will be retained allowing bats to continue to utilise these features; highest levels of bat activity were recorded along these hedgerows.

5.9 A bat sensitive lighting scheme should be incorporated into the proposals, the Bat Conservation Trust offer advice on such schemes within their current guidance document *Bats and lighting – overview of current evidence and mitigation guidance* (Stone 2013). The lighting scheme should avoid impacts on all boundary habitats so that bat foraging and commuting habitat is retained and trees highlighted, with bat roost potential are not impacted upon by light (**see map 4**). Areas of particular value include the eastern and southern boundary hedgerows. Lighting of the northern and western boundary should be minimised, however where lighting is required the use of low level bollard lighting along the proposed access road will minimise impacts of adjacent trees and hedgerows of bat habitat value.

6.0 Conclusions

6.1 The low numbers of reptiles recorded are considered to represent a small population of grass snake and slowworm utilising habitats to the east of the site.

6.2 The bat activity surveys confirmed low to moderate levels of foraging and commuting bat activity at the site with a minimum of four species recorded at the site. Highest levels of bat activity were recorded to the east and south of the site within between point counts 3 –5. No bats were recorded emerging from the office building at the site.

6.3 The recommendations given in relation to bats and reptiles will reduce potential impacts during the construction phase and post development. Further recommendations given will ensure the proposals have minimal impact upon the other protected species highlighted and the proposed site enhancements will increase ecological value of the site and provide suitable habitat for a range of wildlife including bats, reptiles, breeding birds and invertebrates.

REFERENCES

Froglife 1999, Reptile Survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife advice sheet 10. Froglife, Halesworth

Hundt L (2012) Bat Surveys: Good Practice Guidelines, 2nd Edition, Bat Conservation Trust

JNCC(2003) *Herptofauna Worker's Manual* Joint Nature Conservation Committee

Stone. E L (2013) *Bats and lighting – overview of current evidence and mitigation guidance*, Bat Conservation Trust

MAP 1– Reptile Mat Location

MAP 2– Reptile Survey Results

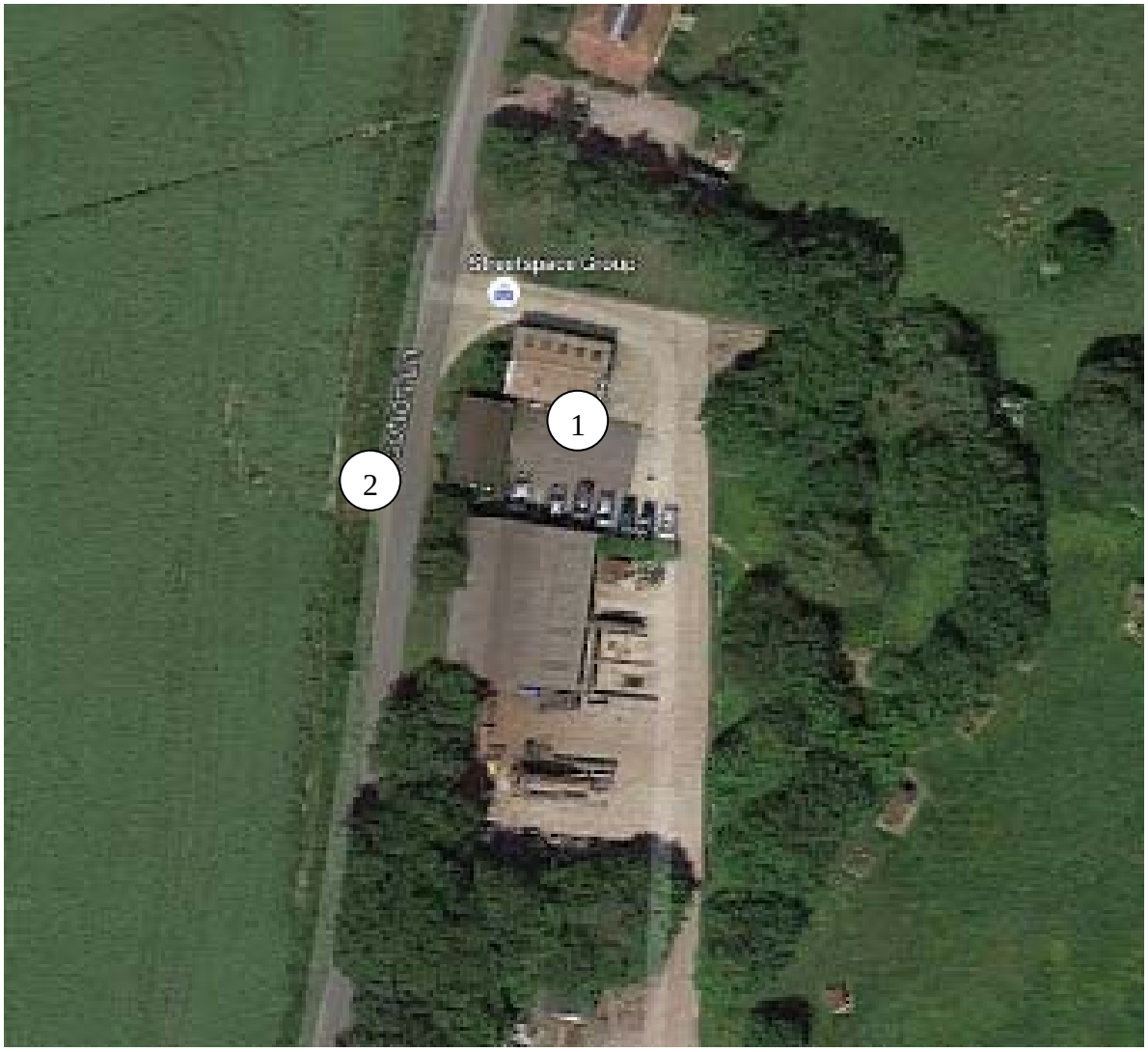
KEY

- Location of grass snake record
- Location of slowworm record

MAP 3 – Bat Emergence Survey Positions

KEY

2 Surveyor Position



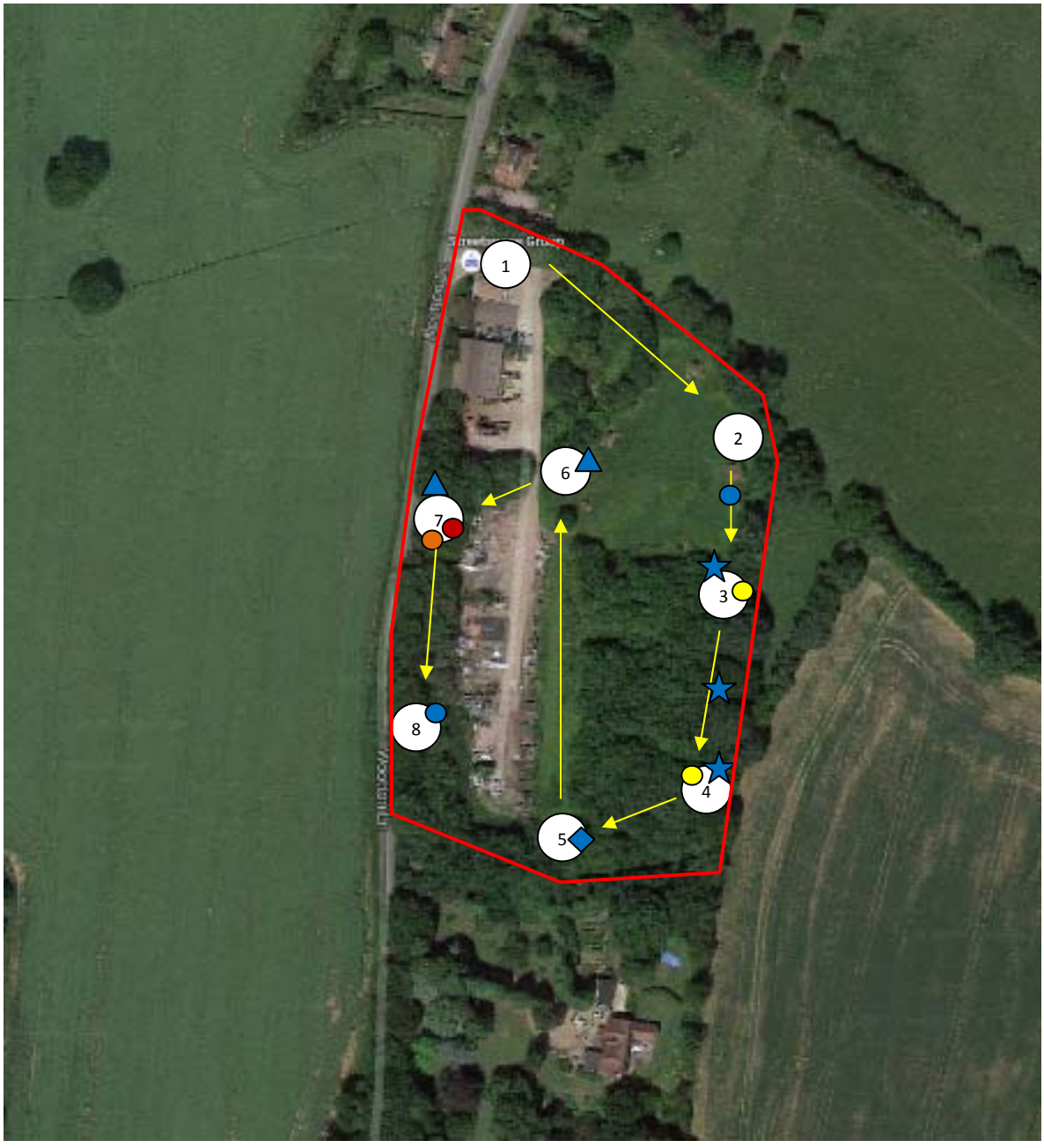
MAP 4 – Bat Activity Survey Results

BAT PASS KEY

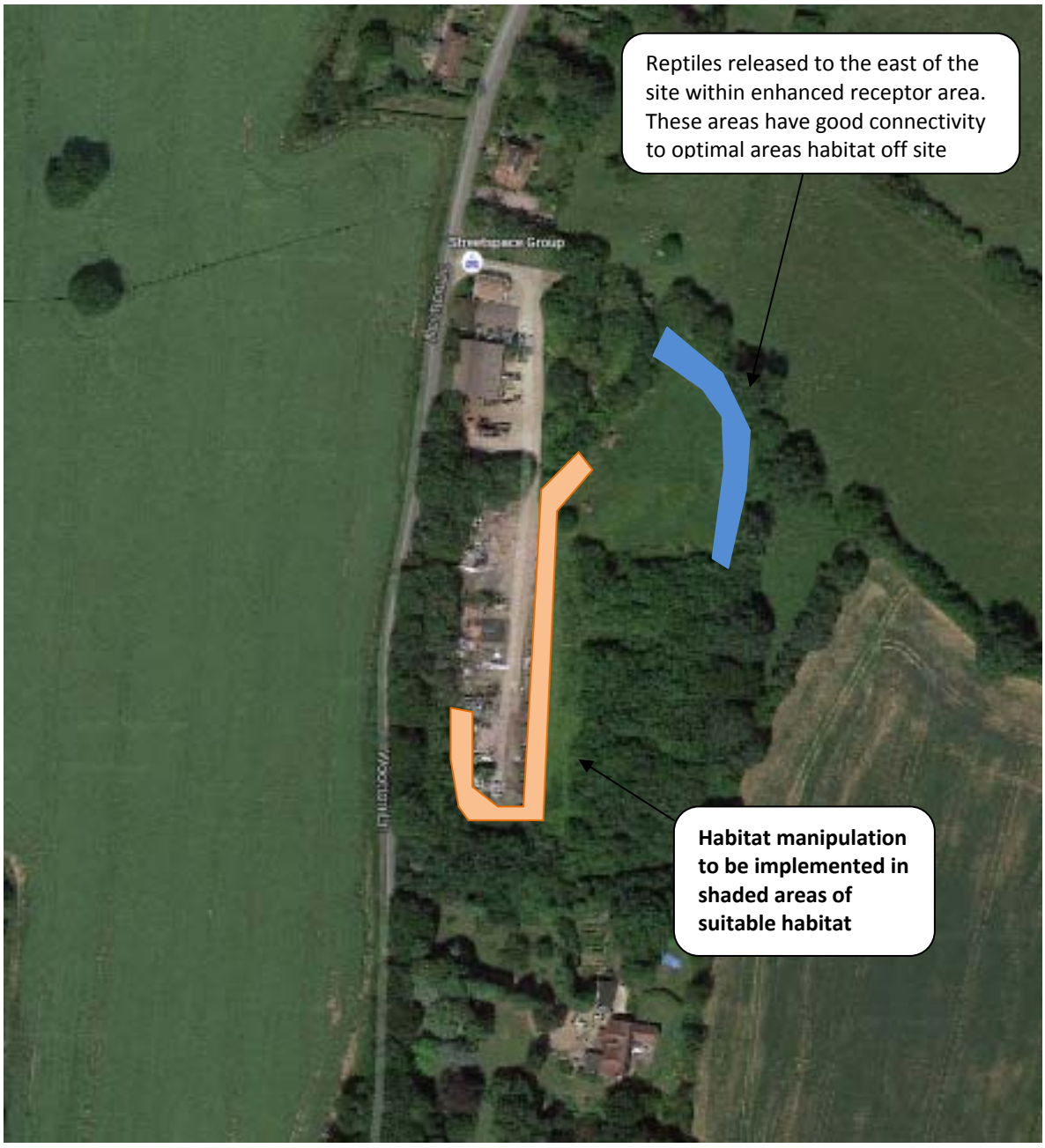
- Single Bat Pass
- 2-5 Bat Passes
- 5 – 15 Bat Passes
- 15 – 30 Bat Passes

BAT SPECIES KEY

- Common Pip
- Brown Long eared bat
- *Myotis* sp. bat
- Noctule bat



MAP 5 – REPTILE MITIGATION



ANNEX 1- LEGISLATION

The following details legislation covering the protection of the UK species highlighted within the recommendations of this report, the information provided should be taken as a general guide, rather than comprehensive. In all cases readers should consult the relevant legislative documents in full and where necessary obtain further legal advice.

Bats

In England & Wales all bat species are protected under **Annex II EC Habitats Directive 92/43/EEC**. This European legislation is implemented in the UK by the **Conservation (Natural Habitats, &c.) Regulations 2010**.

In addition bats are afforded protection under The Wildlife and Countryside Act 1981 (as amended) listed on schedule 5.

The above legislation makes it illegal to carry out the following activities:

- deliberately capture, injure or kill a bat
- deliberately disturb a bat, including in particular any disturbance which is likely to:
  impair the bats ability to survive, breed, reproduce or nurture their young.
  Impair their ability to hibernate or migrate, or
  To affect significantly the local distribution and or abundance of the species
- Damage or destroy a breeding place a breeding site or resting place of a bat
- Posess, control, transport exchange or sell a bat or parts of a bat dead or alive.

Additional conservation significance is afforded to four species of UK bats. Barbastelle, bechstein's and greater and Lesser horseshoe bats, These species are listed on **Annex II EC Habitats Directive 92/43/EEC**. The conservation of these species requires the designation of Special Areas of Conservation (SAC).

Activity that would result in the above offences being committed would require a EPS licence to avoid committing an offence. Natural England has powers to grant a licence

- 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 for the environment; or
- for the purpose of health and safety

Natural England can only issue a licence if it is satisfied that the activity meets one of the above purposes and is also satisfied of the following;

- there is no satisfactory alternative; and
- that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

In order to satisfy the above three tests Natural England and the LPA must be provided with survey information of sufficient quality. Without the survey information a licence/planning application cannot and should not be assessed or issued.

Referenced from Bat Conservation Trust Guidelines (Hundt 2012)

Common reptiles

All common reptile species which includes grass snakes, adders, common lizards and slow worms, are protected by the Wildlife & Countryside Act, 1981. This legislation makes it illegal to intentionally kill or injure a common reptile.