Isles of Scilly Wildlife Trust
Trenoweth, St Mary's, Isles of Scilly, TR21 0NS
Tel: 01720 422153
darrenhart@ioswildlifetrust.org.uk
www.ios-wildlifetrust.org.uk

BAT PRESENCE/ABSENCE SURVEYS OF:

LONGSTONE LODGE
LONGSTONE
ST MARY'S
ISLES OF SCILLY
TR21 0NW

Client: Amy Jenkins

Our reference: BS20-2019PAS

Report date: 15th August 2019

Author: Darren Hart BSc (Hons)

Report peer reviewed: Darren Mason;

Report signed off: Sarah Mason;

REPORT ISSUED IN ELECTRONIC FORMAT ONLY

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Contents

Non-Technical Summary

- On 15th July 2019, Isles of Scilly Wildlife Trust (IoSWT) conducted a Preliminary Ecological Appraisal (PEA) and a Preliminary Roost Assessment (PRA) of Longstone Lodge, St Mary's, Isles of Scilly, TR21 0NW (BS20-2019), for which there is a proposal to develop the roof space of Longstone Lodge into four self-catering units. A subsequent dawn Return to Roost survey (PAS) was carried out on 31st July 2019 and a dusk Roost Emergence survey (PAS) on the 15th August 2019 to support the findings of the PRA. This report outlines the findings of the presence/absence surveys (PAS) and provides advice based upon all the surveys' conclusions.
- Both the PEA/PRA and PAS reports should be considered together to provide a comprehensive assessment of nature conservation issues at the site.
- During the PRA an external/ internal inspection of the building was undertaken. The external areas were evaluated for roost potential and evidence of bats.
- The characteristics of the building suggested a 'moderate' roost potential. The presence of some suitable roosting features and the proximity to suitable bat habitat (as outlined in the PEA) necessitated PAS surveys in order to assess impacts of the proposed development with respect to roosting bats.
- The dusk and dawn surveys found no evidence of roosting bats within the proposed development site, with the main activity around the proposed development considered to be high, consisting of commuting and foraging behaviour.
- There is a strong suggestion from the survey data, that the hedgerow and adjacent lane at the southern boundary of the development, is an important commuting route between an active bat roost (80m away from the development) and the optimal foraging habitats of Holy Vale, Lower & Higher Moors SSSI's. Therefore, any internal or external lighting as part of the project development will need to ensure that this 'dark corridor' is maintained.
- This report recommends that there are no constraints to the planning proposal if the following are adhered to;
- **Avoidance –** Any demolition is recommended to take place between the 1st September and 1st May inclusive and all workers on site are made familiar with bat legislation and agree to work in accordance with and fully follow best practice measures **(see section 5.3).**
- **Mitigation** - Under Section 15 of the National Planning Policy Framework 2019 (NPPF 2019)9 paragraph 174(a) and 174(b) an LPA has a duty to safeguard the components of wildlife corridors and stepping stones that link locally designated sites of importance for biodiversity; as well as promote the conservation of

protected species. Therefore the lighting design, both externally and internally should look to limit the potential impact on the local bat population and protect the dark corridor to the south of the development, thereby minimizing the impact of light pollution on nature conservation and an intrinsically dark landscape as set out under Section 15 paragraph 180(c) **(see section 5.3).**

- **Enhancement** - Under Section 15 paragraph 170(d) of the NPPF 2019 'all planning policies and decisions should contribute to and enhance the natural and local environment by providing net gains in biodiversity.' Therefore this planning application should only be permitted with the inclusion of erection of free-standing bat boxes developed for crevice-dwelling species (**see section 5.3**).
- The recommendations in the PEA and PRA along with this report, suggest **no further surveys** and **no requirement to obtain an EPS license**.

1.0 Introduction

1.1 Background

The Isles of Scilly Wildlife Trust (IoSWT) was commissioned by Amy Jenkins to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) of Longstone Lodge, Longstone, St Mary's, Isles of Scilly, TR21 0NW. Plans of the proposed development were available at the time of the survey but plans for the lighting were not included.

This Bat Presence/Absence survey report builds upon the information gathered from the PEA and PRA carried out on the 15th July 2019.

1.2 Survey Objectives

The objectives of this Presence and Absence Survey (PAS) report, are to provide further ecological information to support the planning proposal by:

- Ascertaining if roosting bats are present at the application site
- To identify the location of these bat roosts (including exit/entry points)
- Subjecting this information (and the information from the PEA and PRA) to evaluation and impact assessment
- To provide advice on the potential for contravention of legislation/policy

- To provide recommendations on any further actions needed (i.e. further surveys, licensing, mitigation or enhancement)

1.3 Surveyor details

The survey was undertaken by Darren Mason BSc and Darren Hart BSc of the Isles of Scilly Wildlife Trust. Both staff members have undertaken professional Bat Licence Training to permit them to undertake professional surveys. They are both currently gathering sufficient 'working hours' to achieve a Natural England Class Level 1 licence.

2.0 Methodology

2.1 Bat Dusk emergence and Dawn return to roost surveys

The objective of the dusk emergence survey was to detect active bat use of the site and identify any exit locations being used around the building. Survey effort was concentrated on areas of the site where suitable features or bat field signs were noted from the PRA. The survey involved;

- Starting the survey 15 minutes before sunset and continuing for approximately 1.5-2hours after[1];
- Identification of bat species primarily through the use of ultrasound characteristics. To aid identification flight and habitat characteristics were also noted (where possible) in order to determine the species;
- Identifying exit locations of bats by standing at different vantage points around the building that offered visual contact with any potential exit point previously recorded. Surveyors stood no more than 50m apart, or away from the building (see Fig 1 for location of surveyors).

The objective of the dawn Return to Roost survey was to detect bats returning to possible roost sites. As bats tend to swarm around a roost entrance for a period of time before entering at dawn, these surveys are more effective at identifying species and numbers of bats that may have emerged later, when no visual contact was possible to identify an exit location or, when the roosts are only small. The survey involved;

- Starting the survey 1.5 – 2 hours before sunrise and continuing until 15 minutes after1;
- Identification of bat species primarily through the use of ultrasound characteristics (as above)
- Identifying entry/exit locations of bat roosts by visual methods described above

2.2 Equipment

The following equipment was used for the dusk emergence survey at the site:

- Anabat Express (Frequency Division) static bat recorder
- Elekon Batscanner Stereo Hetereodyne
- Batbox III D Heterodyne

Sound recordings were analysed using Anabat Insight software to confirm surveyors' identification of bats.

2.3 Survey Limitations

Surveys carried out during a specific season can only provide information on bat presence at that particular time, as bats are highly mobile in nature and may only use buildings at certain times of the year that favour a particular part of their roosting, maternity and hibernating requirements.

3.0 Results

3.1 Weather conditions, temperatures and timings

Survey Information:	Start and End Times:	Conditions (Start):	Conditions (End):
Dawn Return to roost: 31/7/19	Start: 03:53 am Sunrise: 05:53 am End: 06:15 am	Temp: 16^{0}C Humidity: 78% Wind speed: 15 mph Cloud cover: 68% Rain: None	Temp: 17.5^{0}C Humidity: Wind speed: 9mph Cloud cover: 100% Rain: None
	Surveyors		
	1. Darren Hart 2. Darren Mason	Notes:	

Survey Information:	Start and End Times:	Conditions (Start):	Conditions (End):
Dusk emergence: 15/8/19	Start: 20:28 Sunset: 20:43 End: 22:15	Temp: 20^{0}C Humidity: 73% Wind speed: 12 mph Cloud cover: 95% Rain: None	Temp: 17^{0}C Humidity: 86% Wind speed: 12 mph Cloud cover: 95% Rain: None
	Surveyors		
	1. Darren Hart 2. Darren Mason	Notes: Lux 2 @ 21.10	

Table 1. Site conditions for Dusk & Dawn surveys

Figure 1. Location of surveyors during the dusk & dawn surveys

3.2 Dusk emergence and dawn re-entry roost survey results

Species confirmed onsite during the dusk and dawn surveys were Common pipistrelle (*Pipistrellus pipistrellus*), un-identified Pipistrelle (*Pipistrelle sp.*) and Soprano pipistrelle (*Pipistrellus pygmaeus*). During the dusk emergence survey activity was deemed high with 158 total bat contacts heard on the heterodyne bat detectors. Surveyor 1 on the northern aspect recorded 25 bat contacts; surveyor 2 recorded 133 bat contacts (see Appendix A for recorded bat contacts). The first bat contact times came at 12, 15 and 22 minutes after sunset (surveyor 2), recorded on the heterodyne. It has been shown that *pipistrellus* sp. typically emerge 30 minutes after sunset to avoid predation[2, 3]. The proximity of these first contacts to around this time after sunset may indicate that a roost(s) of this species is nearby. Several bat roosts are known to exist within the 2km of the proposed development, with 8 known roosts within 500m of the property. Both commuting and foraging activity were recorded by surveyor 2 regularly throughout the survey period. In total 158 bat contacts were recorded, with the last at 22:15 (see Appendix A for all contacts recorded). During the survey period no bats were seen to emerge from or return to the proposed development.

During the dawn return to roost survey activity was deemed to be moderate with a total of 61 contacts recorded. Surveyor 2 on the southern aspect recorded 44 bat contacts and surveyor 1 on the northern aspect recorded 17. No bats were seen to return to the proposed development.

The Anabat static bat recorder was placed in the loft space for both dawn and dusk surveys and no bats were recorded during the survey periods. The high level of bat activity recorded (133 bat contacts over 1.5 hours) on the southern aspect of the Lodge strongly suggests the hedgerow's importance as part of a commuting route for bats between the riparian woodland at Holy Vale SSSI and the riparian woodland and reedbeds at Higher and Lower Moors SSSI's. It has been shown that bats use tree lines and hedgerows for both commuting and foraging and that Pipistrelles have a preference for foraging along tree lines[16,17,18,19]. Soprano pipistrelle (Pipistrellus pygmaeus) are known to preferentially forage in riparian habitats, over water and in adjacent riparian woodland[13,14,15,16]. Common pipistrelle (Pipistrellus pipistrellus), however, has been recorded foraging over a wider range of habitats, including rivers, lakes, woodland and cattle pasture[13,14,15,16]. There are 8 known roosts within 500m of the property and one active roost within 80m.

4. Evaluation of Results

To identify which ecological features are important and which could potentially be affected by the proposed project, an evaluation of their importance for example; in a geographical context, degree of scarcity or level of protected status needs to be undertaken[4]. The table below outlines those features identified as important, the nature conservation legislation relevant to those features and an assessment of the level of impact from the proposed development on those features.

Ecological Feature	Relevant Legislation	Evaluation (of importance)	Mitigation Hierarchy	Impact Level
Habitats:				
Building (roost sites)	CHSR, W&CA, NPPF	Local	A, M, E	Low
	Impacts: **Demolition:** – None predicted as long as Reasonable Avoidance Measures (RAM) are followed (see section 5)			

	Construction: – None. Positive impact may result through enhancement by creating/incorporating new roosts in the building[5] **Operational impact:** - None predicted, however please note a summary of criminal offences with respect to bats and their roosts. This can be found at: http://www.bats.org.uk/pages/bats_and_the_law.html			
Species:				
Bats	CHSR, W&CA, NPPF	International	A, M, E	Medium
	Impacts: **Demolition –** None predicted as long as Reasonable Avoidance Measures (RAM) are followed (see section 5) **Construction/post-construction -** Mitigation measures are required to maintain the dark corridor/hedgerow to the south[9, 11]. Therefore, any internal or external lighting as part of the project development will need to consider how to ensure that this 'dark corridor' is maintained[9, 11]. Appropriate mitigation for any lighting externally and internally on the proposed development on both the developments northern and southern aspects will need to limit any impact of light spill[9, 11]. Positive impact may result through enhancement by increased roost availability[5] **Operational impact:** - None predicted, however please note a summary of criminal offences with respect to bats and roosts. This can be found at: http://www.bats.org.uk/pages/bats_and_the_law.html			
Key to Legislation and Mitigation Hierarchy				
CHSR – Conservation of Habitats and Species Regulations 2017[6] - http://www.legislation.gov.uk/uksi/2017/1012/made W&CA – Wildlife & Countryside Act 1981 (as amended)[7] - http://www.legislation.gov.uk/ukpga/1981/69/contents NPPF – National Planning Policy Framework 2019[9] - https://www.gov.uk/government/publications/national-planning-policy-framework--2 **A** – Avoid, **M** – Mitigate, **C** – Compensate, **E** - Enhancement				

5. Recommendations and Mitigation

The recommendations in this section are provided as information only and specialist legal advice may be required. If works are delayed for more than one year, then re-assessment may be required.

5.1 Further survey requirements

In the professional opinion of the author there are **no further surveys required**. The justification for this is; BCT guidance suggests that for buildings with a medium roost potential a dusk emergence and a dawn

re-entry survey should be carried out to provide sufficient evidence to support the PRA that bat roosts are likely absent[1]. The surveys carried out to date meet this guidance, are proportionate to the scale of the development and that the information provided is sufficient to inform the planning decision.

5.2 EPS Licence requirement

For any development that is likely to commit an offence (or offences) in respect to a European Protected Species (EPS) i.e. bat, or their habitat, a licence will be required. In this instance based on sufficient survey work **no licence is required**. If, in the unlikely event a bat were found during the demolition phase of the project, Reasonable Avoidance Measures (RAM) must be followed and will determine any further action, such as licensing if necessary.

5.3 Mitigation – Further Action

As there is a low risk that bats may roost within the building, prior to demolition, precautions should be taken to reduce the probability of committing an offence. By undertaking Reasonable Avoidance Measures (RAM), if affected RAM should include:

Avoidance – Bats

i. If demolition works are planned these should avoid the main breeding and mating season of Common pipistrelle bats, with demolition recommended to take place between the 1st September and 1st May inclusive.

ii. Ensure all workers on site (including sub-contractors) are made familiar with bat legislation and agree to work in accordance with and fully follow best practice measures.

iii. Carry out prior to demolition careful checks of any cracks/crevices and cavities in or on the building. Signs of usage include; bat droppings, dis-colouration or polishing of access points where bats rub against them, urine stains and a lack of cobwebs, particularly if other crevices around them have plenty.

iv. Individual bats may be found in/under; cladding, between timber boards, between corrugated sheeting, in soffit boxes, behind lead flashing and sometimes just clinging to timber beams around joins as well as others areas. When any of these are removed, please do so carefully, lifting outwardly, and checking for bats continually. If in doubt, consult a licensed bat worker.

v. In the unlikely event that a bat is found please see below:

1. At no point should a worker handle a bat. Untrained handling may cause undue stress and injury to the bat, and if bitten may expose the worker to rabies-related European Bat Lyssavirus
2. Where possible replace any covering without damaging the bat, then halt works and contact **Natural England** (Tel: 0845 601 4523), or the **Bat Conservation Trust Helpline (**0845 1300 228), or **IoSWT** (01720 422153) for advice.
3. Any bats that go to ground should be covered with a box and left alone until a licensed bat worker arrives to assess the condition of the bat
4. If the bat attempts to fly at any point allow it to do so. Preventing natural behavior will cause unnecessary stress and may cause injury. Attempt to see where bat goes. If the bat returns to the building, halt works and report the escaped bat to the local bat worker

vi. Try to minimise any dust generated from demolition works from entering off-site buildings and gardens.

Mitigation – Bats

The Isles of Scilly have the most southern population of Common Pipistrelle *(Pipistrellus pipistrellus)* bats in the United Kingdom. The islands also hold small populations of Soprano Pipistrelle (*Pipistrellus pygmaeus*) and Brown Long-eared Bat (*Plecotus* auritus) both UK Biodiversity Action Plan (BAP) priority species and holds records for the rare Nathusius Pipistrelle (*Pipistrellus nathusii*). Any loss of roosting, commuting or foraging sites could have a detrimental effect on these species distributions as a whole and cause a net loss in biodiversity across the islands.

Each Local Planning Authority in England and Wales has a statutory obligation under Part 3 Section 40 of the Natural Environment & Rural Communities Act 2006[8] (NERC 2006) to have due regard for biodiversity when carrying out their functions and must contribute to achieving sustainable development by protecting and enhancing our natural environment under Section 2 of the National Planning Policy Framework 2019 (NPPF 2019)[9] by minimising the impacts on and providing net gains in biodiversity, as set out under Section 15 of the framework.

In this instance it has been identified that a large number of bats are using the hedgerow and lane to the south of the proposed development site which links a known large and established bat roost with the wetland SSSIs of

Higher Moors, Lower Moors and Holy Vale. Under Section 15 paragraph 174(a) an LPAs has a duty to safeguard components of local wildlife-rich habitats and wider ecological networks, wildlife corridors and stepping stones that link locally designated sites of importance for biodiversity; as well as promote the conservation of ecological networks and the protection of priority species set out under paragraph 174(b). Furthermore, under Section 15 paragraph 180(c), an LPA must ensure that new developments should limit the impact of light pollution on local amenity, intrinsically dark landscapes and nature conservation.

Therefore, this planning application should be permitted with the following suggestions being undertaken:

i. External lighting on the southern aspect should not be permitted. This will help maintain the dark corridor/hedgerow to the south. Common pipistrelles (*Pipistrellus pipistrellus*) have been recorded avoiding well-lit gaps, thereby creating a barrier effect[10].
ii. Internal light fittings should be set back into the rooms to avoid/ limit light spill out of the dormers[11]. Light spill onto the lane should not be greater than <.5 Lux c.2m to 6m away from the lane[21]. Internally the location and style of light is important; recessed lights can be closer to windows, but must be directional. Deeply recessed, pendant lights which are diffuse should sit more centrally in the room and a minimum of 1.5m away from any glazing[11].
iii. All external lighting on the northern aspect, to illuminate the stairs, should be designed to reduce light spill and direct to only where it is needed[11] (ee Institute of Lighting Professionals Guidance for the Reduction of Obtrusive light[20]).
iv. All external lights should be set on motion-sensors and short (1 min) timers; no longer than 2 minutes[11, 21].
v. All external lighting should have a cowl or be louvered, to direct lighting downwards (narrower spread), or minimised to only highlight the route, with minimal upward luminescence[11].
vi. The height of any external lights should be minimised[21].
vii. Any external light sources should have a reduced blue light and low UV content, preferably LEDs[11]. If warm colour light sources are used those that emit <2700Kelvin are preferable[11].

See Appendix D for a list of suppliers of appropriate lighting

Enhancement – Bats

The PEA/PRA for Longstone Lodge (BS20) identified that there are 8 known roosts within 500m of the proposed development and the results of this presence and absence survey have shown that commuting, foraging and social behaviour is taking place in and around the proposed development. Under Section 15 paragraph 170(d) of the NPPF 2019, all planning policies and decisions shall contribute to and enhance the natural and local environment by providing net gains in biodiversity. **Therefore, this planning application should be permitted with the following suggestions being undertaken:**

i. Roosting provision should be provided in the erection of free-standing bat boxes developed for crevice-dwelling species (see figure 4. for example and Appendix C for supplier details). These should be erected on the east and west gable ends of the Lodge, towards the roof apex.

ii. Any external lighting should not spill onto the erected free-standing bat boxes on the gable ends as illuminating a bat roost can cause disturbance to the roost[12] This may deter their usage, which will defeat the object of their erection.

iii. Encourage a 'bat friendly' planting scheme to enhance the surrounding habitat to encourage foraging bats (See Appendix D for ideas).

Figure 4. free-standing bat box example

https://www.nhbs.com/browse/search?q=bat%20boxes&hPP=30&idx=titles&p=0&is_v=1&qtview=158636

https://www.nhbs.com/browse/search?q=bat+boxes&qtview=176916

6. Bibliography

1. Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). The Bat Conservation Trust

2. Rydell, J. et al. (1996). Timing of Foraging Flights of Three Species of Bats in Relation to Insect Activity and Predation Risk. Oikos. Vol 76. No.2. p243-252

3. Jones, G. and Rydell, J. (1994). Foraging strategy and predation risk as factors influencing emergence time in echolocating bats

4. CIEEM. (2016). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal (2nd edition). Chartered Institute of Ecology and Environmental Management, Winchester.

5. Mitchell-Jones, A.J. (2004). Bat mitigation guidelines. English Nature.

6. H.M.S.O. (2017). *The Conservation of Habitats and Species Regulations.* London.

7. H.M.S.O. (1981). *The Wildlife and Countryside Act 1981* (as amended). London.

8. H.M.S.O. (2006). *The Natural Environment and Rural Communities Act 2006*. London

9. Ministry of Housing, Communities & Local Government. (2019). National Planning Policy Framework. OGL

10. James D. Hale Alison J. Fairbrass Thomas J. Matthews Gemma Davies Jon P. Sadler (2015). The ecological impact of city lighting scenarios: exploring gap crossing thresholds for urban bats. Global Change Biology. First published: 02 February 2015 https://doi.org/10.1111/gcb.12884.

11. Institute of Lighting Professionals (ILP) & Bat Conservation Trust. Bats and artificial lighting in the UK. Bats and the built environment series. Guidence Note 08/18.

12. Downs, Nick & Beaton, V & Guest, J & Polanski, J & Robinson, Sarah & Racey, Paul. (2003). The effects of illuminating the roost entrance on the emergence behavior of Pipistrellus pygmaeus. Biological Conservation - BIOL CONSERV. 111. 247-252. 10.1016/S0006-3207(02)00298-7.

13. Vaughan N, Jones G, Harris S (1997) Habitat use by bats (Chiroptera) assessed by means of a broad-band acoustic method. J Appl Ecol 34:716-730.

14. Russ JM, Montgomery WI (2002) Habitat use associations of bats in Northern Ireland: implications for conservation. Biol Conserv 108:49-58

15. Nicholls B, Racey PA (2006) Habitat selection as a mechanism of resource partitioning in two cryptic bat species Pipistrellus pipistrellus and Pipistrellus pygmaeus. Ecography, vol 29 (5) 697-708.

16. Downs N, Racey PA (2006) The use by bats of habitat features in mixed farmland in Scotland. Acta Chiropterologica, vol 8:169-185.

17. Entwistle, A.C. et al. (2001). Habitat Management for Bats: A guide for land managers, landowners and their advisors. Joint Nature Conservation Committee

18. Verboom, B & Huitema, Hans. (2010). The influence of tree-line structure and wind protection on commuting and foraging common pipistrelles (Pipistrellus pipistrellus). Lutra. 53. 63-80.

19. B Verboom and , K Spoelstra. Effects of food abundance and wind on the use of tree lines by an insectivorous bat, (Pipistrellus pipistrellus). Canadian Journal of Zoology, 1999, 77(9): 1393-1401, https://doi.org/10.1139/z99-116.

20. Guidance Notes for the Reduction of Obtrusive Light GN01:2011 – ILP – Instute of Lighting Professionals (2011)

21. WaterSpace Design Guidance – Protecting bats in waterside development (2018). **www.waterspacebath.org.uk**

APPENDIX A – BAT CONTACTS SURVEY TABLE

Date:	**31/07/19 – Dawn Return to Roost**	
Survey Type:	**Surveyor 1**	**Surveyor 2**
Location:	North aspect NW corner	South aspect SW corner
Exit/Entry point:	None recorded	None recorded
Time(s):	03:55, 03:57, 04:00, 04:03, 04:04, 04:09, 04:12, 04:30, 04:33, 04:36, 04:39, 04:40, 04:43, 04:48, 04:52, 05:08, 05:10	03:53, 03:53, 03:54, 03:55, 03:56, 03:57, 03:58, 03:58, 03:59, 04:00, 04:02, 04:04, 04:05, 04:06, 04:06, 04:07, 04:08, 04:09, 04:09, 04:12, 04:14, 04:14, 04:15, 04:17, 04:18, 04:21, 04:23, 04:24, 04:31, 04:34, 04:35, 04:36, 04:37, 04:37, 04:38, 04:43, 04:44, 04:45, 04:48, 04:50, 04:52, 05:12, 05:21, 05:25
Species of bat:	Common pipistrelle	Common pipistrelle
Roost present:	None recorded	None recorded

Date:	**15/08/19 – Dusk Emergence**	
Survey Type:	**Surveyor 1**	**Surveyor 2**
Location:	North aspect NW corner	South aspect SW corner
Exit/Entry point:	None recorded	None recorded
Time(s):	21:25, 21:27, 21:35, 21:37, 21:40, 21:41, 21:44, 21:49, 21:51, 21:53, 21:56, 21:57, 22:01, 22:02, 22:05, 22:05, 22:06, 22:06, 22:08, 22:09, 22:10, 22:12, 22:12, 22:15, 22:15.	20:55, 20:58, 21:05, 21:05, 21:09, 21:12, 21:12, 21:12, 21:13, 21:13, 21:13, 21:14, 21:14, 21:16, 21:16, 21:16, 21:17, 21:18, 21:18, 21:18, 21:19, 21:20, 21:20, 21:20, 21:20, 21:21, 21:22, 21:22, 21:23, 21:23, 21:23, 21:23, 21:24, 21:24, 21:24, 21:24, 21:25, 21:26, 21:26, 21:27, 21:27, 21:28, 21:34, 21:35, 21:35 21:37, 21:37, 21:37, 21:38, 21:40, 21:41, 21:42, 21:42, 21:42, 21:43, 21:43, 21:43, 21:44, 21:44 21:45, 21:45, 21:45, 21:45, 21:45, 21:46, 21:46, 2146, 2146, 2147, 2147, 2148, 2148, 21:49, 21:49, 21:49, 21:50, 21:50, 21:50, 21:51, 21:51, 21:51, 21:51, 21:53, 21:53, 21:53, 21:53, 21:55, 21:55, 21:55, 21:55, 21:55, 21:55, 21:56, 21:56, 21:56, 21:56, 21:57, 21:57, 21:58, 21:58, 21:59, 21:59, 21:59, 21:59, 22:00, 22:00, 22:00, 22:01, 22:01, 22:02, 22:02, 22:02,

		22:02, 22:02, 22:05, 22:06, 22:04, 22:04, 22:04, 22:04, 22:04, 22:05, 22:05, 22:05, 22:05, 22:06, 22:06, 22:06, 22:06, 22:06, 22:06, 22:06.
Species of bat:	Common pipistrelle, unidentified pipistrelle	Common pipistrelle, unidentified pipistrelle, Soprano pipistrelle
Roost present:	None recorded	None recorded

APPENDIX B – LEGISLATION AND LICENSING

a) Legislation

All species of bats receive special protection under UK law making it a criminal offence under Schedule 5 section 9 (4) (b) and (c) of the Wildlife and Countryside Act 1981 (as amended) to *"intentionally or recklessly disturb a bat at a roost"* or *"intentionally or recklessly obstruct access to a roost" and under* Regulations 43 (1) and (2) of the Conservation of Habitats and Species Regulations 2017 (The Habitat Regulations) to *"deliberately disturb a bat in a way that would affect its ability to survive, breed or rear young or, affect the local distribution or abundance of the species;* or to "*damage or destroy a roost"* without first having obtained the relevant licence for derogation from The Habitat Regulations from the Statutory Nature Conservation Organisation (the SNCO – Natural England in England).

The word 'roost' is not used in the legislation, but is used here for simplicity. The actual wording in law is 'any structure or place which any wild animal...uses for shelter or protection' or 'breeding site or resting place'. Because bats tend to re-use the same roosts after periods of vacancy, legal opinion is that the roost is protected whether or not the bats are present at the time.

Penalties on conviction of a bat-related crime - the maximum fine is £5,000 per incident or per bat, up to six months in prison, and forfeiture of items used to commit the offence, e.g. vehicles, plant, machinery.

b) Licensing

In order to obtain such a licence (as set out above) the SNCO must apply the requirements of the Regulations and, in particular, the three tests set out in sub-paragraphs 55(2)(e), (9)(a) and (9)(b). These are as follows:

(1) Regulation 55 (2)(e) states that a licence can be granted for the purposes 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 for the environment*".

(2) Regulation 55 (9)(a) states that the appropriate authority (the SNCO) shall not grant a licence unless they are satisfied "*that there is no satisfactory alternative*".

(3) Regulation 55 (9)(b) states that the appropriate authority (the SNCO) shall not grant a licence unless they are satisfied "*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.*"

The licence would permit an otherwise unlawful activity to take place, and it requires of the licensee measures to ensure that negative impacts are prevented, reduced or offset, and that the favourable conservation status of the bats is maintained. **Once a licence is granted, failure to comply with its contents, including its attached Method Statement is a Criminal Offence with fines of a maximum of £5,000 per infringement.** A licensed bat consultant must be appointed to assist in the preparation and the delivery of the mitigation proposals that ensure the species protection requirements (Favourable Conservation Status 'FCS' test) can be met.

Additional information on the tests is available from the Natural England website.
http://publications.naturalengland.org.uk/publication/4727870517673984?category=12002

The ecologist is responsible for providing evidence to meet Test 3. The evidence to satisfy tests 2 and 3 is submitted on a part of the license application called the Reasoned Statement. The Reasoned Statement must be filled in by the client or their agent. Applicants often approach planning consultants, architects or similar for advice regarding completion of the Reasoned Statement.

- **Permissions**
  The development must have **full permission** before the licence application will be registered including any ecology-related conditions or reserved matters that can be discharged before the date of application.

- **Further bat surveys**
  If a full active bat season is going to pass between the granting of planning permission and the licence application period, Natural England will require **update survey(s)** (March-Aug) prior to application submission. The number of surveys required will vary by site depending on the size and complexity of the site as well as the species and roost types present.

- **Land ownership**

If mitigation, compensation or monitoring is anticipated to be on land not owned by the applicant, then written consent from the landowner will be required by Natural England. Responsibility for management and maintenance must also be agreed.

- **Commitments**

Applications should not give any commitments to undertake licensed works (or actions relating to the licence) that cannot be delivered.

- **Multi-phased projects**

If a plan is phased, Natural England will require a Master Plan with all mitigation and timetables included on it.

c) Licence timescales:

- **Licensing decision**

The licence application pack can take anywhere from **2 to 3 weeks** to produce and Natural England allow themselves **30 working days** from the date of receipt to respond to applications, a window which can be extended if further information is requested by themselves. It is important that clients, developers, contractors, agents, etc. keep this in mind when designing work timetables. Occasionally, further information will be requested by NE, which can result in additional delays; therefore application as soon as possible is advised.

- **Timing of works**

In most cases, the works most likely to affect bats (bat exclusion work, soft strip, re-roofing, ecologist-advised timber treatment, etc.) will normally be timed to avoid the hibernation and maternity periods. Thus, these works tend to be timed for either the **September-October period** or the **March-April period**. This means licence application is normally completed 3 months prior to these periods, and cannot be submitted any earlier.

- **Other Timing**

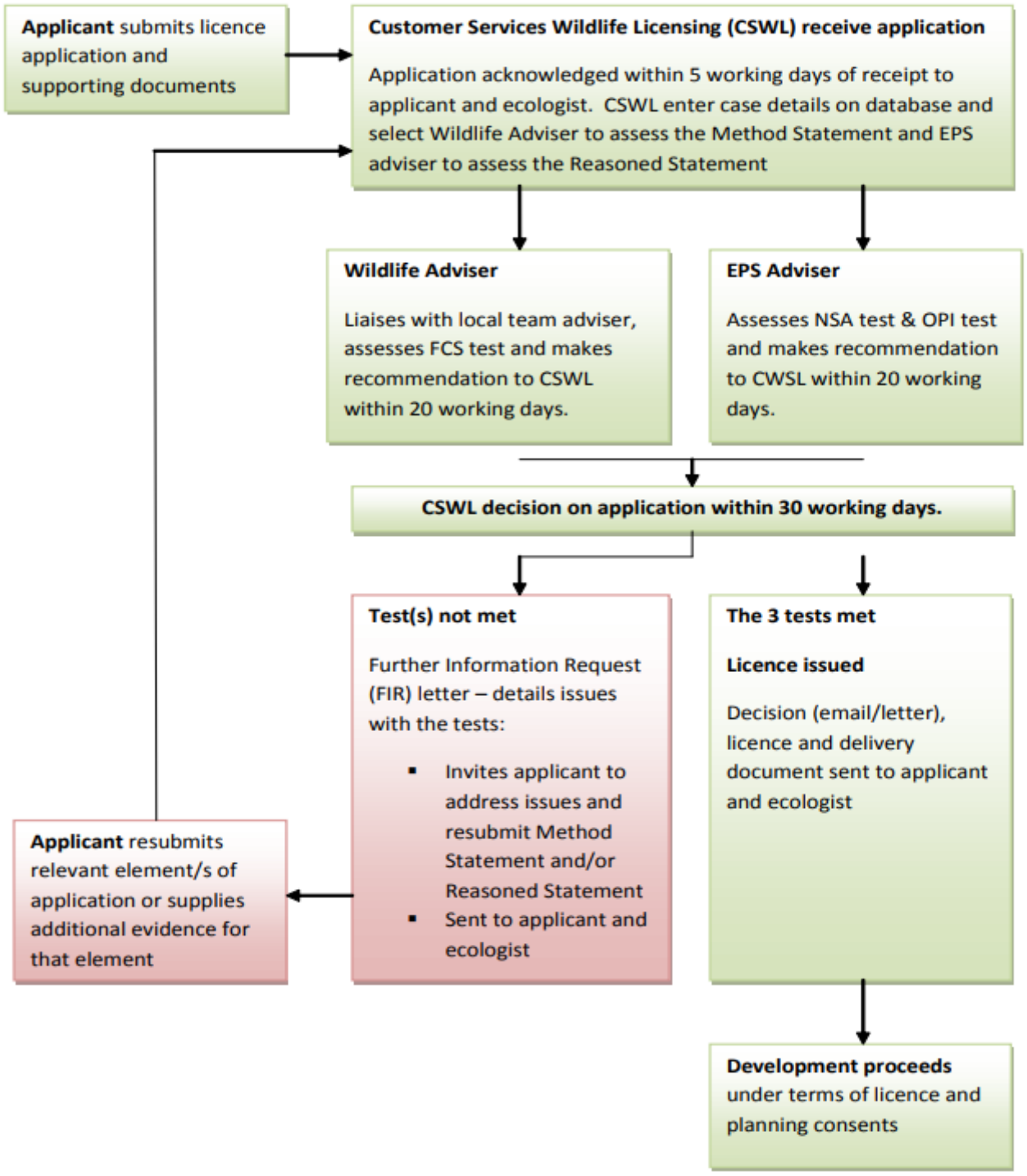
All timescales are weather-dependent (e.g. 5 days post-exclusion period extended due to inclement weather) and also may be impacted by other aspects of the project not related to ecology. In some situations license periods can be extended, but this involves more work and is not guaranteed as they must ensure that Test 3 is still met.

d) Scale of work involved:

- **Mitigation** Production and submission of the license application pack as well as the completion of the licensed works themselves are time intensive and involve inspections, exclusions, site induction and other works requiring onsite supervision such as bat roost creation, soft strip and other necessary checks under the terms of the license. Costs for materials and equipment including bat boxes, exclusion materials, lifts/scaffolding to carry out soft strips, roost construction materials, etc. needs to be considered. Costs can vary considerably by project, but the applicant should ensure provision for all aspects of the licensed works is well-budgeted.

- **Monitoring** Most mitigation schemes require some sort of post-development monitoring, the type and extent of which would be confirmed in the license method statement. A contract with the ecologist for all survey, mitigation and post-development monitoring surveys needs to be agreed for this at the application stage.

EPS Process



EPS application procedure flowchart (updated December 2011). Taken from WML-G12-EPS Mitigation Licensing – How to get a licence Version December 2013

APPENDIX C – SUPPLIERS

1. Natural History Book Service
   1-6 The Stables
   Ford Road
   Totnes
   Devon
   TQ9 5LE
   Tel: 01803 865913
   Email: customer.services@nhbs.com
   Website: https://www.nhbs.com/

2. Habibat
   Tel: 01642 724626
   Email: http://www.habibat.co.uk/contact
   Website: www.habibat.co.uk

3. Wildlife & Countryside Services
   Covert Cottage
   Pentre Lane
   Rhuddlan
   North Wales
   LL18 6LA
   Tel: 0333 9000927
   Email: support@wildlifeservices.co.uk
   Website: www.wildlifeservices.co.uk

4. Wildcare
   Eastgate House
   Moreton Road
   Longborough
   Gloucestershire
   GL56 0QJ
   Tel: 01451 833181
   Email: sales@wildcare.co.uk
   Website: www.wildcare.co.uk

5. DarkLight Design
   https://www.darklightdesign.com/

APPENDIX D – BAT FRIENDLY PLANTING

List of species taken from the Bat Conservation Trust Leaflet: "*Encouraging Bats. A Guide for Bat Friendly Gardening and Living*" (BCT 2015)[10]

*Plants marked * are hybrids or exotics that may be useful in the garden*

Flowers for Borders	**Flowering period**
*Aubretia	Spring to early summer
Bluebell	Spring
*Candytuft	Summer to autumn
*Cherry pie	Summer to autumn
Corncockle	Summer to autumn
Corn marigold	Summer to autumn
Corn poppy	Summer to autumn
*Echinacea	Summer to autumn
*Evening primrose	Summer to autumn
Field poppies	Summer
*Honesty	Spring
*Ice plant 'Pink lady'	Early autumn
Knapweed	Summer to autumn
Mallow	Summer to autumn
*Mexican aster	Summer to autumn
*Michaelmas daisy	Summer to autumn
*Night-scented stock	Summer
Ox-eye daisy	Summer
*Phacelia	Summer to autumn
*Poached egg plant	Summer
Primrose	spring
*Red valerian	Summer to autumn
Scabious	Summer
St John's wort	Spring
*Sweet William	Summer
*Tobacco plant	Summer
*Verbena	Summer to autumn
*Wallflowers	Spring to early summer
Wood forget-me-not	Spring
Yarrow	Early summer
Herbs	**Flowering period**
Angelica	Summer
Bergamot	Summer to early autumn
Borage	Spring to early autumn
Coriander	Summer
Fennel	Summer to early autumn
Feverfew	Summer to early autumn
English marigold	Summer
Hyssop	Summer to early autumn
Lavenders	Summer
Lemon balm	Summer

Herbs	Flowering period
Marjoram	Summer
Rosemary	Spring
Sweet Cicely	Spring to early summer
Thyme	Summer
Trees, shrubs and climbers	**Type**
*Bramble	climber
Buddleia	shrub
Common Alder	tree (suitable for coppicing)
Dog rose	climber
Elder	tree (small)
Gorse	shrub
Hawthorn	tree (suitable for coppicing)
Hazel	shrub (suitable for coppicing
Honeysuckle (native)	climber
Hornbeam	tree
*Jasmine (night-scented)	climber
Grey Willow	tree (suitable for coppicing)
Rowan	tree
Silver birch	tree
Ivy	climber