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BAT PRESENCE/ABSENCE SURVEYS OF:

Jedi
McFarland's Down,
St Mary's,
Isles of Scilly
TR21 0NS

Client: Dr Randolph Hessing

Our reference: BS6-2018PAS

Report date: 02/10/18

Author: Darren Hart

Report peer reviewed: Darren Mason

Report signed off: Sarah Mason

REPORT ISSUED IN ELECTRONIC FORMAT ONLY

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Non-Technical Summary

- On the 24th August 2018, The Isles of Scilly Wildlife Trust (IoSWT) conducted a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) of Jedi, McFarland's Down (BS6-2018), where it is proposed to install one roof-light to the front facing roof slope. A subsequent dusk emergence survey was carried out on the 13th September 2018 to support the findings of the PRA. This report outlines the findings of the dusk emergence survey 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 (where accessible). Due to parts of the loft not having floor boards meant that part of loft was searched using a high powered torch.
- Evidence of bats was not found as part of the PRA and there were limited potential opportunistic roost sites for a small number of bats, with good habitat connectivity to foraging areas, particularly further to the east and south.
- The property is also known to house an existing roost in a detached building on the premises (as outlined in the PEA). This necessitated a PAS in order to assess impacts of the proposed development with respect to roosting bats.
- The dusk emergence survey found that although a lot of bats use the surrounding area to the property for feeding and commuting none were seen to emerge from the features highlighted previously in the PRA.
- The recommendations of the PRA and this report suggest that **no more surveys are necessary** and there is no requirement to obtain an EPS license. This report recommends that there are no constraints to the planning proposal if the following details are adhered to which include; avoidance measures during demolition and construction phase and enhancement in the form of provision of new potential roost sites.

1.0 Introduction

1.1 Background

The Isles of Scilly Wildlife Trust (IoSWT) was commissioned by Dr Randolph Hensing to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) to inform the proposal for the installation of one roof-light to the west facing roof slope to provide light source for the upstairs at Jedi, McFarland's Down.

This presence/Absence survey report builds upon the information gathered from the PEA and PRA carried out on the 24th August 2018.

1.2 Survey Objectives

The objectives of this Presence and Absence Survey (PAS) report, is 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 surveys were undertaken by Darren Hart (BSc) of the Isles of Scilly Wildlife Trust. Darren has undertaken professional Bat Licence Training to permit him to undertake professional surveys. He is currently gathering sufficient 'working hours' to achieve a Natural England Class Level 1 licence.

2.0 Methodology

2.1 Bat Presence/Absence Survey

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 proposed site for development. Survey effort was concentrated on areas of the site where suitable features were noted from the PRA. The survey involved;

- Starting the survey 15 minutes before sunset and continuing for approximately 1.5-2 hours after¹;
- 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 the correct position, the highlighted possible roosting features could be observed by a single observer. Surveyor stood no more than 50m away from the building (see Figure 1 for location of surveyor).



Figure 1. Location of surveyor for the dusk emergence survey

2.2 Equipment used.

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

- Anabat Express (Frequency Division) static bat recorder
- Batbox III D Heterodyne

Sound recordings were analysed using Analook W 4.3x software to confirm surveyors' identification of species.

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. Results

3.1 Weather conditions, temperatures and timings

Survey Information:	Start and End Times:	Conditions (Start):	Conditions (End):
Dusk emergence:	Start: 19:30 Sunset: 19:45 End: 21:16	Temp: 17 ⁰ Humidity: 72% Wind speed: 9mph Cloud cover: 60% Rain: None	Temp: 12.5 ⁰ C Humidity: 83% Wind speed: 11mph Cloud cover: 30% Rain: None
	Surveyors		
	1. Darren Hart	Notes:	

Table 1. Site conditions for Dusk emergence survey

3.2 Dusk emergence roost survey results

Species recorded active onsite during the dusk emergence survey included Common pipistrelle (*Pipistrellus pipistrellus*) (see Appendix B for sample sonogram examples). Activity was deemed high, with most activity related to commuting, but feeding also taking place in and around the property (see Appendix A for recorded bat contacts). The first bat contact came at 35 minutes after sunset at 20:05. It has been shown that *pipistrellus* sp. typically emerge 30 minutes after sunset to avoid predation.^{5,6} The proximity of the first contact to this time after sunset may indicate a roost(s) of this species nearby. Commuting activity and some foraging behaviour (as seen from the sonograms) continued throughout the survey period. In total

117 bat contacts were recorded during the survey, the last at 21:16. During the survey period **no bats were seen to emerge from the proposed site of the roof-light** (see figure 2 for proposed site of the roof-light).



Figure 2. Proposed site of roof-light

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 undertaken². 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	Local	A, M, E	Low
Impacts: Demolition/construction: – None predicted as long as Reasonable Avoidance Measures (RAM) are followed (see section 5). Positive impact may result through enhancement by creating/incorporating new roosts in the building ⁷ 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	International	A, M, E	Low
Impacts: Construction/post-construction – None predicted as long as Reasonable Avoidance Measures (RAM) are followed (see section 5). Positive impact may result through enhancement by increased roost availability ⁷ 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 ³ - http://www.legislation.gov.uk/uksi/2017/1012/made W&CA – Wildlife & Countryside Act 1981 (as amended) ⁴ - http://www.legislation.gov.uk/ukpga/1981/69/contents A – Avoid, M – Mitigate, C – Compensate, E – Enhancement				

5. Recommendations and Mitigation

The recommendations in this section are provided as information only and are the professional opinions of the author. Note; if building 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 **no further surveys are required**. BCT guidance suggests that for buildings with low roost potential, a single dusk emergence survey should be carried out to provide sufficient evidence to support the PRA that bat roosts are likely absent. The survey carried out to date

follows this guidance, is proportionate to the scale of the development and the information provided is believed to be 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 EPS 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.

5.3 Mitigation – Further Action

As there is a low risk that bats may roost within the building, prior to construction, precautions should be taken to reduce the probability of committing an offence. If affected RAM should include:

Avoidance and Mitigation - Bats

- i. Work should avoid the main breeding and mating season of Common pipistrelle bats. The work should be carried out from the 1st November through to the 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 careful checks under any of the tiles, when any of these are removed, please do so carefully, lifting outwardly, and checking for bats continually. Individual bats may be found in/under tiles, cladding, between timber boards. Works must stop if any bats are found and advice sort. Signs of usage include; bat droppings, dis-colouration or polishing of access points where bats rub against them and urine stains. If in doubt, consult a licensed bat worker.
- iv. 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



Figure 3. Roof vent

v. The roof vent (see figure. 3) should not be covered during the works. This was highlighted as a potential roost feature and as it is outside the area of work it should not be compromised.

vi. As a known roost exists on the property; in the detached garage conversion to the south east of the main house (see figure 4.), cutting of tiles, dumping of rubbish and storage of materials should not be carried out in this vicinity to minimise disturbance through noise and dust levels.

Figure 4. Showing detached garage conversion – known bat roost



Enhancement – Bats

The Isles of Scilly have the most southern population of Common Pipistrelle (*Pipistrellus pipistrellus*) bats in the United Kingdom. Any loss of roosting, commuting or foraging sites could have a detrimental effect on this species distribution as a whole and cause a net loss in biodiversity on the islands.

As the results of this survey have shown that there is a likelihood of a roost nearby, there is an opportunity for this development to provide additional roosting habitat and an opportunity to strengthen the population of this locally important species.

Each local planning authority in England and Wales has a statutory obligation under Part 3 Section 40 of the Natural Environment & Rural Communities Act 2006⁹ (NERC 2006) to have due regard for biodiversity when carrying out their functions and must pursue sustainable development and a net gain in biodiversity set out under the guidelines in the National Planning Policy Framework 2018⁸. Therefore, this planning application should be permitted with the following being undertaken:

- i. Roosting provision to be provided as long-term replacement for the loss of potential roosts for crevice dwelling species. This should be in the form of 1 or 2 bat boxes developed for crevice dwelling bat species to be situated at the top of the gable ends of the house (South and West aspects). See Figures 4 and 4a for examples and Appendix D for supplier details.



i. Figure. 4 – Crevice bat box.



Figure 4a – Crevice bat box.

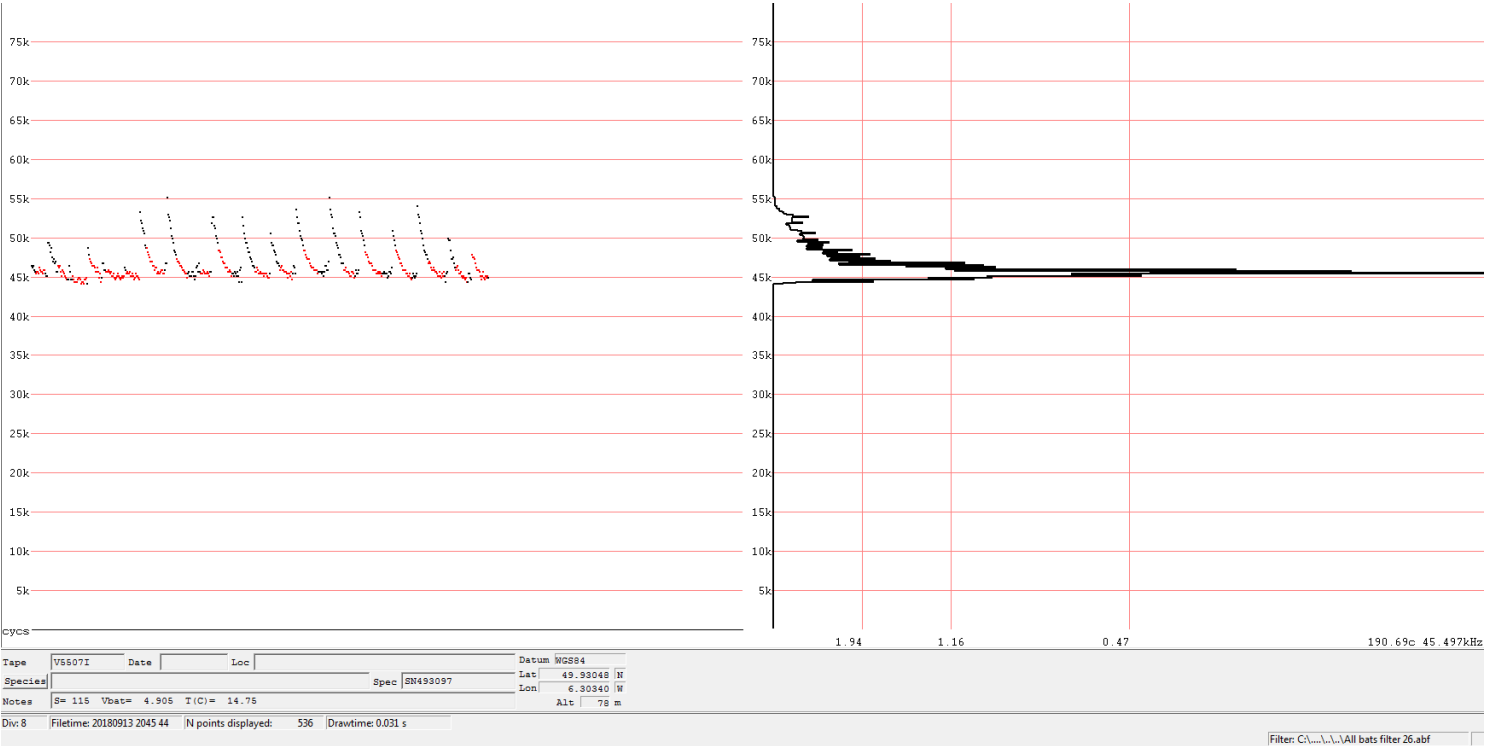
6. Bibliography

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2. 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.
3. H.M.S.O. (2017). *The Conservation of Habitats and Species Regulations*. London.
4. H.M.S.O. (1981). *The Wildlife and Countryside Act 1981* (as amended). London.
5. 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
6. Jones, G. and Rydell, J. (1994). *Foraging strategy and predation risk as factors influencing emergence time in echolocating bats*. *Biological Sciences*, Volume 346 (1318). P445-455.
7. Mitchell-Jones, A.J. (2004). *Bat mitigation guidelines*. English Nature.
8. Ministry of Housing, Communities & Local Government. (2018). *National Planning Policy Framework*. OGL
9. H.M.S.O. (2006). *The Natural Environment and Rural Communities Act 2006*. London

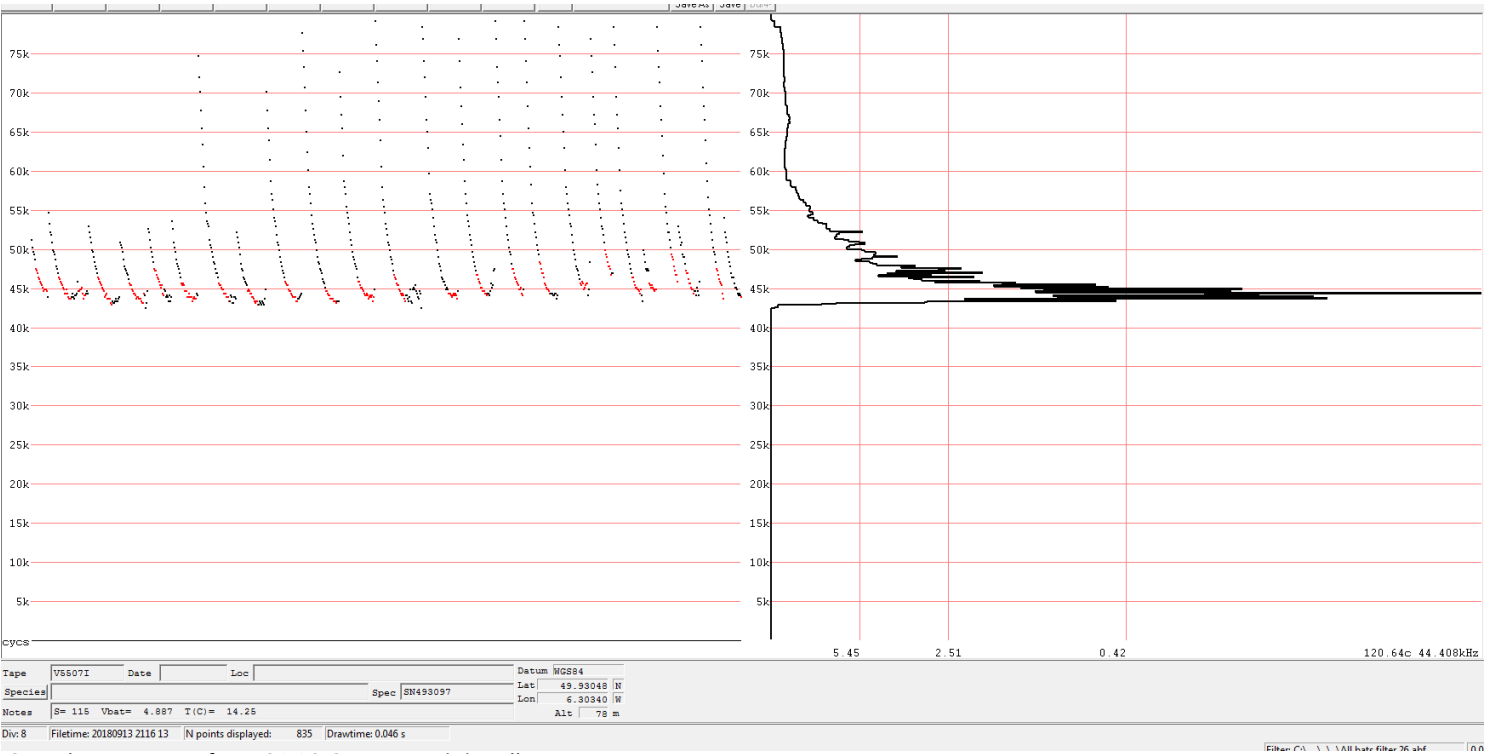
APPENDIX A – BAT CONTACTS SURVEY TABLE

Date:	13/09/18
Survey Type:	Dusk emergence
Location:	Jedi, McFarlands Down, St Mary's, Isles of Scilly
Exit/Entry point:	n/a
Time(s):	20:05, 20:08, 20:10, 20:12, 20:14, 20:16, 20:17, 20:18, 20:20, 20:23, 20:25, 20:26, 20:28, 20:32, 20:33, 20:34, 20:37, 20:38, 20:40, 20:41, 20:42, 20:43, 20:44, 20:45, 20:46, 20:48, 20:49, 20:50, 20:51, 20:53, 20:54, 20:55, 20:57, 20:59, 21:00, 21:01, 21:02, 21:03, 21:04, 21:05, 21:06, 21:07, 21:08, 21:09, 21:10, 21:11, 21:12, 21:13, 21:14, 21:15 and 21:16. At some of these times multiple bat contacts were recorded.
Species of bat:	Common pipistrelle
Roost present:	None recorded

APPENDIX B – SAMPLE SONOGRAMS



Sample sonogram 20:45 Common Pipistrelle



Sample sonogram from 21:16 Common Pipistrelle

APPENDIX C – 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.

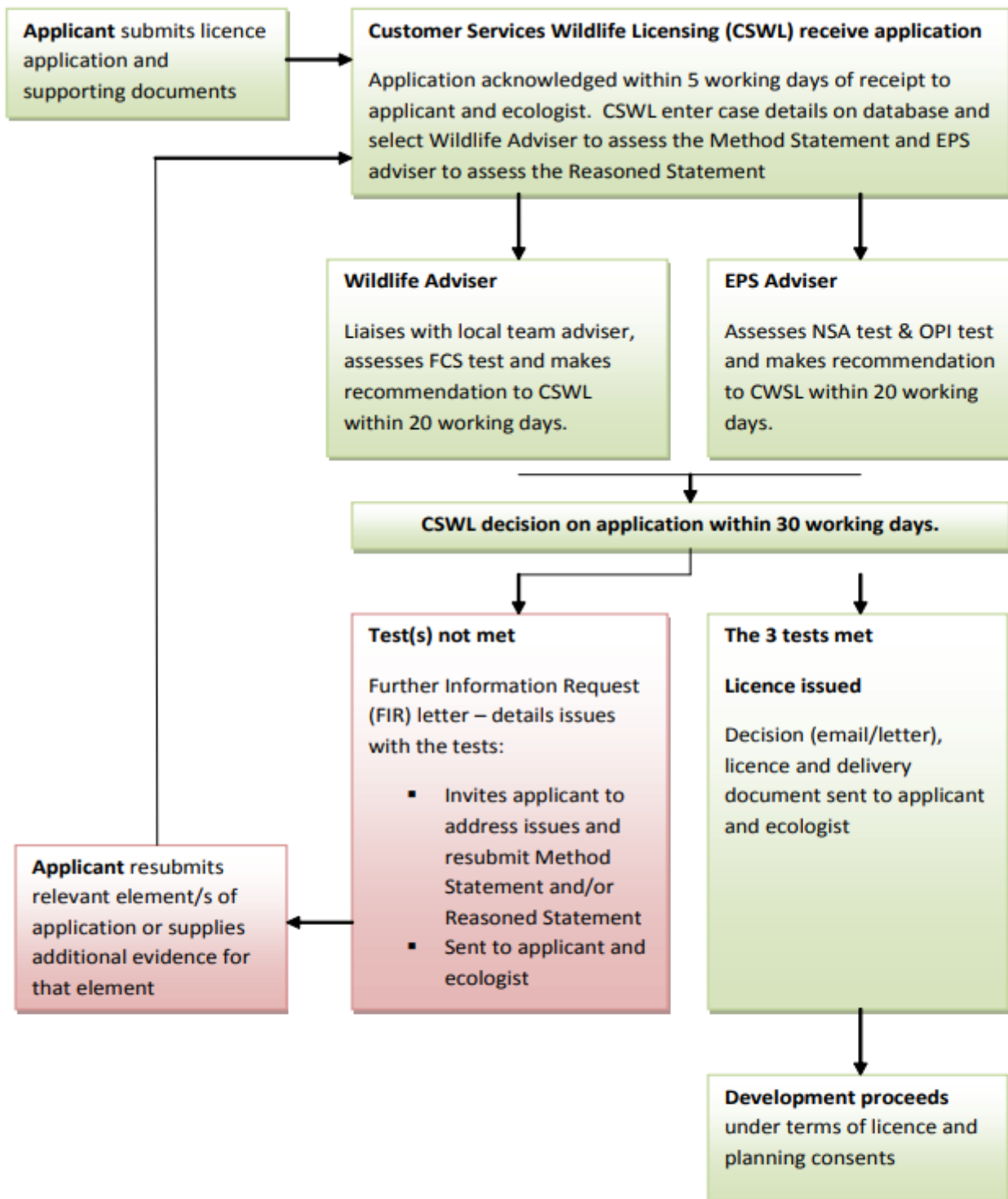
- **Other Timing**

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