EARNED RECOGNITION PROJECT: REPORT OF CONSULTATION WITH ECOLOGISTS INVOLVED IN MITIGATION LICENSING

MARCH 2021

CIEEM

Bat Conservation Trust

NATURAL ENGLAND

Executive Summary

The Earned Recognition (ER) Partnership Project involves Natural England (NE), the Bat Conservation Trust and the Chartered Institute for Ecology and Environmental Management (CIEEM). The aims of the project are to design a scheme to streamline the mitigation licensing process for bats in England, raise and maintain professional standards and improve outcomes for bats.

A detailed consultation was launched on 17th November 2020 to gather views on the proposed ER scheme from ecologists involved in mitigation licensing, to inform a pilot in 2021 and to identify those interested in taking part in the pilot. A webinar was hosted by the partners on 19th November to introduce the scheme and take questions; the consultation closed on 5th January 2021. This report provides the consultation results.

In total, 252 people responded to the consultation, around a third of the number of mitigation licence applicants in NE records from the last three years. The majority of respondents were ecological consultants and there was good representation of different geographical areas in which respondents work, sizes of organisation and ecology team, and types of development worked on. Most respondents work on both structures and trees (rather than just one or the other). Most respondents were members of CIEEM, although other professional bodies were represented.

The majority of respondents hold a minimum of a Level 2 survey licence from NE, which is a pre-requisite for mitigation licensing. Respondents included those who only hold survey licences and those who also hold mitigation licences and/or a Bat Mitigation Class Licence.

The consultation showed an overall positive response to the ER scheme, with the majority of respondents predicting good outcomes for mitigation licence holders, developers and NE. The respondents were less aligned regarding whether or not they thought the scheme would be better for bats and if it would be misused by mitigation licence holders or developers.

There was a positive reaction to the ER Accreditation Levels, the Competency Profiles and the Sample Competency. The majority of respondents favoured one scheme to cover both structures and trees and the inclusion of activity surveys in the Competency Framework. However, fewer respondents favoured the inclusion of sonogram analysis.

When asked if other types of assessment could be used and if the sifting process would pick up the right cases for manual assessment, just over half of respondents said they did not know. Bearing in mind limited information was provided on both of these aspects of the scheme this is perhaps not a surprising result. Finally, the majority of respondents were keen to take part in the pilot.

As a result of the consultation, some of the documents and processes have been updated in advance of the ER pilot. Numerous other valuable comments were received which will be analysed and considered further during the pilot. Comments were also received which were in the form of questions, some of which highlighted some common areas of concern. Many of these are already addressed in the consultation webinar Q & A document (published on the BCT and CIEEM websites during the consultation period), but new questions arising will be added and published in due course.

We would like to thank those who responded to the consultation for their time and look forward to working with some on the pilot in 2021.

Contents

1.0. Introduction

The Earned Recognition (ER) Project is a partnership between Natural England (NE), the Bat Conservation Trust (BCT) and the Chartered Institute for Ecology and Environmental Management (CIEEM). The aims of the project are to design a scheme to streamline the mitigation licensing process for bats in England, raise and maintain professional standards in this work and improve outcomes for bats.

This report provides the results of a detailed consultation carried out to gather views on the scheme from ecologists involved in mitigation licensing. More information can be found on the BCT and CIEEM websites here:

- Earned Recognition Project - Project collaborations & Partnerships - Bat Conservation Trust (bats.org.uk)
- Earned Recognition | CIEEM

2.0. Methods

2.1. The Consultation

A detailed consultation was launched on 17th November 2020 to gather views on the proposed ER scheme, to inform a pilot in 2021 and to identify individuals who could potentially be involved in the pilot. The consultation closed on 5th January 2021.

As part of the consultation, the following documents were made accessible on the BCT and CIEEM websites:

- Consultation Document
- Earned Recognition Accreditation Levels
- Competency Profiles for Bat Mitigation
- Sample row from the Competency Framework: Design and Preparation of Management, Mitigation and Enhancement Plans and Projects

The consultation questions were presented as a Survey Monkey questionnaire (linked from the BCT and CIEEM websites) containing 44 questions in total, ranging from simple questions about the stakeholder to more detailed questions about the scheme, e.g. the accreditation levels, competency profiles and sample competency. Respondents were also asked if they would like to be involved in the pilot, in which role and (if interested) for their contact details.

A webinar was hosted on 19th November 2020 to introduce the ER Project partners and the scheme, and facilitate a Q & A session; over 300 people attended. The webinar was recorded and posted on the BCT and CIEEM websites, followed by a detailed Q & A document, including all questions that had been submitted before, during and after the webinar.

A separate and less detailed consultation was run concurrently for other stakeholders; the results of that consultation are provided in a separate report.

2.2. Publicising The Consultation

The consultation was publicised by emailing contacts on the NE Wildlife Licensing Newsletter list and through the CIEEM e-newsletter, BCT's Bat Group Bulletin and BCT's social media channels such as Facebook and Twitter. Members of the Association of Local Government Ecologists were also emailed and informed through their online forum and the Mammal Society was informed about the consultation.

3.0. Results

In total 252 people responded to this consultation; around a third of the number of mitigation licence applicants in NE records from the last three years.

Summary data are presented in the Appendices 1-7 of this report, which also contain individual written responses from respondents to the consultation. This raw data has not been amended in any way and in some cases represents a misunderstanding or misconception on the part of the respondent – the comments should be read with this in mind. Many of the questions or misunderstandings have been covered in the consultation webinar Q & A document, although it is acknowledged that this was not published until mid-way through the consultation, after some of the respondents had completed and submitted their responses.

4.0. Interpretation

4.1. The Respondents

4.1.1. Stakeholders (Appendix 1, Question 1)

Of the 252 respondents, 97%[1] of these were ecological consultants. We are aware that other stakeholder groups do hold mitigation licences (e.g. local planning authority ecologists or NGOs) and the consultation was open to all who chose to respond. A small number of responses were received from these other groups.

4.1.2. Regionality (Appendix 1, Question 2)

People working in all regions were represented, with the highest proportions in the south-east (34%) and south-west (34%) and the lowest proportions in the north-east (13%) and London (10%).

4.1.3. Size of Organisation / Ecology Team (Appendix 1, Questions 3-4)

People working in all different sizes of organisation and ecology team were represented, although the greatest proportion of respondents work in a 2-10 strong organisation (41%) with a 2-10 strong ecology team (51%).

4.1.4. Membership of Professional Body (Appendix 1, Question 5)

Eighty eight per cent of respondents are members of CIEEM with a small number of other professional bodies represented, 9 in total, and 8% of respondents are not members of a professional body. Some respondents are Chartered (Biologist and Environmentalist were mentioned, probably some respondents are Chartered Ecologists, although this information was not specifically requested or noted).

4.1.5. Development Types (Appendix 1, Question 6)

Respondents work on all types of development project in the tick list that was provided (see Appendix 1, Question 6), with small housing receiving the highest proportion of responses (84%) and mining and waste infrastructure receiving the lowest proportion of responses (16% each). There was an interesting mix of 'Other' responses to this question.

4.1.6. Structures and Trees (Appendix 1, Question 7)

The majority of respondents work on both built structures and trees with only 7% of respondents working only on structures and only a single respondent working solely on trees. Partners in the scheme have been considering whether there should be a separate scheme for those who work only

[1] All percentages have been rounded up or down to the nearest whole number.

on trees so this question (7) and one later in the consultation (34) were designed to collect data on types of work carried out and preferences of respondents respectively.

4.1.7. Survey Licences Held (Appendix 1, Question 8)

Fifteen per cent of respondents hold a Level 1 licence and 73% of respondents hold a Level 2 survey licence, which is the minimum requirement to hold a bat mitigation licence (a Level 3 and/or a Level 4 licence is also acceptable). Smaller numbers of respondents hold licences for Advanced Bat Licence Survey Techniques (ALBST) – Levels 3 & 4. Four percent of the sample do not hold any bat survey licence.

4.1.8. Volume of Projects (Appendix 1, Question 9)

The next few questions were aimed at understanding the volume of projects respondents deal with. The responses showed that 57% have worked on more than 51 projects involving providing advice about bats in the last three years (but 2% haven't worked on any). The remainder have worked on fewer projects within that timescale.

4.1.9. Avoidance of Impact (Appendix 1, Question 10)

The next question aimed to tell us how many projects involve bats and could potentially have an impact but were designed so that the impact was avoided and therefore the need for a bat mitigation licence was avoided (also in the last three years). Fifty four per cent have worked on ten or fewer projects of this nature and 21% have worked on 11-20 projects like this in the last three years. A handful of respondents have worked on a greater number of such projects and only 2% haven't worked on any.

4.1.10. Bat Mitigation Licences (Appendix 1, Questions 11-12)

When looking at projects where bat mitigation licences were sought in the last three years, 42% have worked on 10 or fewer and 21% have worked on 11-20 and lower proportions have worked on more projects than this. Twenty two per cent of respondents haven't held any mitigation licences within the given timeframe.

We are considering whether earned recognition could be an option for survey licensing and were interested in how many people carry out surveys for development but then don't go on to hold mitigation licences and the reasons behind this. The question was not applicable for 68% of respondents. Of the remainder, 12% act as accredited agents on other's licences rather than obtaining their own and 5% don't yet have the relevant experience.

Eleven per cent ticked the 'Other' box. The most frequent response was that other staff within an organisation or sub-contractors hold the mitigation licences (14 responses). The next most frequent responses were that the respondent does not hold a minimum of a Level 2 survey licence (a requirement for holding a mitigation licence) or does not have sufficient experience or references (7 responses for each).

4.1.11. BMCL Site Registrations (Appendix 1, Questions 13-14)

Looking now at BMCL site registrations, 61% said they hadn't had any and 17% said they had held 10 or fewer, with decreasing numbers of respondents having held more BMCL site registrations than this.

Again, looking at those who hold survey licences but don't go on to hold BMCL licences and the reasons behind this, the question was not applicable for 40% of respondents. Of the remainder, 28% said they did not meet the criteria and 10% just act as accredited agents on other's site registrations.

Seventeen per cent ticked the 'Other' box. The most frequent response was that the respondent had only just achieved the relevant criteria but would be applying/had applied (12). The next most frequent responses were that other staff within an organisation or sub-contractors hold the mitigation licences (10 responses) and respondents are not a member of a professional body (9 responses).

4.2. Initial Reaction to the ER Scheme

4.2.1. Initial Reaction (Appendix 2, Questions 15-16)

When asked about their initial reaction to the scheme 52% of respondents were somewhat or very positive and 23% were neutral. Forty percent agreed or strongly agreed that the scheme would improve outcomes for bats and 44% were neutral.

4.2.2. Likely Outcomes for Mitigation Licence Holders (Appendix 2, Question 17)

When respondents were asked about likely different outcomes from the scheme for mitigation licence holders, the highest proportion of respondents agreed or strongly agreed that the scheme would: improve professional standards (58%, 25% neutral), level the playing field (41%, 29% neutral), increase accountability (50%, 31% neutral) and be better for mitigation licence holders (49%, 31% neutral). In terms of whether the scheme would be misused by mitigation licence holders, the highest proportion of respondents were neutral (46%, 33% disagreed or strongly disagreed).

Thinking about the standards expected as part of the scheme, the highest proportion of respondents felt that standards would not be set too high (43%, 42% neutral) or too low (58%, 38% neutral).

4.2.3. Likely Outcomes for Developers (Appendix 2, Question 18)

In terms of different outcomes for developers, the highest proportion of respondents agreed or strongly agreed that the scheme would reduce delay and uncertainty (69%) and would be better for developers (72%). The highest proportion of respondents (42%) were neutral with respect to whether the scheme would be misused by developers. More respondents felt the scheme would be misused (32%) than thought it would not be misused (26%) by developers.

4.2.4. Likely Outcomes for NE (Appendix 2, Question 19)

When considering outcomes for NE, 71% agreed or strongly agreed that the scheme would be more efficient for NE, 23% were neutral.

4.3. ER Accreditation Levels Document (Appendix 3, Questions 20-26)

Question 19 marked the end of the compulsory questions, the remaining questions were optional but most attracted over 200 responses. The number of respondents answering each question is given at the top of each graph in Appendices 1-7. The percentages quoted below do not take into account those people, of the 252, who skipped the particular question referred to.

When asked if the accreditation levels in the table were about right, 79% said yes, 15% said no and 6% didn't know.

The following questions went on to establish which species and roost types respondents felt should be covered in a different level to the one given. For the purposes of interpretation, we have pulled out the responses where five or more people (this is an arbitrary choice and represents a very small proportion of the total number of respondents) gave the same answer. These were:

- Mating sites of common and soprano pipistrelle should be in Level 2 rather than Level 1 (9 and 10 responses respectively for the two different species).
- Satellite roosts of Group 1 species should be in Level 1 rather than Level 2 (8 responses).
- Transitional/occasional roosts of Group 2 or 3 species should be in Level 1 rather than Level 2 (5 responses).
- Maternity and hibernation roosts of Group 1 species should be in Level 3 rather than Level 2 (5 and 6 responses respectively).
- Satellite roosts of Group 2 or 3 species should be in Level 2 rather than Level 3 (8 responses).
- Mating sites and swarming sites should be in Level 2 rather than Level 3 (9 and 6 responses respectively).
- Any other roost type or habitat features should be in Level 2 rather than Level 3 (10 responses).

Section 5 details the changes made to the accreditation levels as a result of the consultation comments.

When asked if the thresholds for numbers of species and numbers of roosts in the accreditation levels table were about right, 81% said yes, 10% said no and 9% didn't know. There was no clear pattern to indicate common alternative preferences for these thresholds and therefore no changes have been made to the accreditation levels as a result of the consultation.

Comments received when respondents were asked if anything was missing from the ER Accreditation Levels table are given in Appendix 3, Question 26.

4.4. Competency Profiles for Bat Mitigation (Appendix 4, Questions 27-29)

When asked if the mix of competencies in the Competency Profiles table was about right, 87% of respondents said yes, 7% said no and 6% said they didn't know.

The majority of respondents (73%) felt that all the competencies included in the Competency Profiles table are required and relevant. In terms of competencies that respondents felt were not relevant, the transferable competencies received the highest number of responses.

Comments received when respondents were asked if any competencies in the Competency Profiles table are not relevant are given in Appendix 4, Question 28.

When asked if any competencies were missing from the Competency Profiles table 68% of respondents said no, 14% said yes and 18% said they didn't know.

Comments received when respondents were asked if any competencies are missing from the table are given in Appendix 4, Question 29.

4.5. Sample Row from the full Competency Framework (Appendix 5, Questions 30-32)

When asked if the competencies in the sample row from the full Competency Framework (Design and Preparation of Management, Mitigation and Enhancement Plans and Projects) were about right for Level 1, 88% said yes, 7% said no and 5% said they didn't know.

When asked the same question regarding the Levels 2 and 3 competencies 77% said yes, 12% said no and 11% said they didn't know.

Comments received when respondents were if any competencies are missing from the sample row are given in Appendix 5, Question 32.

4.6. Other Elements of Bat Work

4.6.1. Structures and trees (Appendix 6, Questions 33-34)

When asked how often respondents carry out work on trees the largest proportion replied that they work on trees one to two times annually. Some respondents work on trees more frequently and some less frequently but 9% said they never work on trees. When asked whether there should be separate accreditation systems for those working with structures and those working with trees 72% said there should only be one scheme and 28% said there should be separate schemes.

Comments received when respondents were asked if there should be one accreditation scheme covering both built structures and trees or separate schemes covering structures and trees individually are given in Appendix 6, Question 34.

4.6.2. Activity Surveys (Appendix 6, Questions 35-36)

Respondents were asked how often they carry out activity surveys and the majority (81%) said more than five times annually. Smaller numbers carry out fewer activity surveys and only 1% said they never carry out activity surveys. When asked if activity surveys should be part of the competency framework for ER accreditation 55% said yes, at all three levels and according to the complexity of the site. In contrast, 35% thought that activity surveys should not be included in the framework.

Comments received when respondents were asked if activity surveys should be included in the Competency Framework are given in Appendix 6, Question 36. It is worth noting that some respondents appeared to assume that 'activity surveys' encompass emergence and dawn surveys at roosts because no definition was provided. The intended definition was transect and static surveys of commuting routes and foraging areas, excluding emergence and dawn surveys.

4.6.3. Sonogram analysis (Appendix 6, Questions 37-39)

When asked how often respondents carry out sonogram analysis the majority (84%) said more than five times annually. Smaller numbers carry out sonogram analysis less frequently and only 3% said they never carry out sonogram analysis. Respondents were then asked if they don't do sonogram analysis what is the reason – the most commonly cited answer was that other people carry out this work on their behalf (7%).

When asked if sonogram analysis should be part of the competency framework for ER accreditation 40% said yes, at all three levels and according to the complexity of the site. In contrast, 36% thought that sonogram analysis should not be included in the framework.

Comments received when respondents were asked if sonogram analysis should be included in the Competency Framework are given in Appendix 6, Question 39.

4.7. Assessment, Sifting and The Pilot

4.7.1. Assessment Methods (Appendix 7, Question 40)

Respondents were asked if other types of assessment method would be appropriate and 46% answered that they didn't know. Twenty-eight per cent said no and 26% said yes, other types of assessment would be appropriate.

Respondents were asked to comment. The intention of this was to establish if respondents think other types of assessment method besides the four proposed (online testing, practical assessment, submission of a portfolio and a structured interview) could be used. Full responses are given in Appendix 7, Question 40.

4.7.2. Sifting Process (Appendix 7, Question 41)

When asked if the process would pick up the right cases for manual assessment 55% answered that they didn't know, 34% said yes and 11% said no.

Respondents were asked to comment and full responses are given in Appendix 7, Question 41.

4.7.3. The Pilot (Appendix 7, Question 42)

One of the aims of the consultation was to identify those who might be interested in taking part in a pilot of the scheme in 2021 so we asked this question and 82% (175 respondents) expressed interest. Respondents were subsequently asked which roles they would be interested in. All roles were represented in the responses, with fewer keen on taking up the role of assessor, lead assessor or expert panel representative in comparison to candidate for accreditation. Decreasing numbers of respondents volunteered for increasing levels of accreditation, as would be expected. Respondents provided contact details to facilitate further contact regarding the pilot in 2021.

5.0. Proposed Changes to ER Scheme Following Consultation

Consultation comments were reviewed to check where changes to the proposed pilot may be needed. In cases where the ER Project has decided to amend documents or processes, or where we will further consider whether changes should be made prior to licensing during the pilot, the comments and responses are included in Table 1 below.

Numerous other valuable comments were received which will be analysed and considered further during the pilot. The ER Project will also consider whether holding workshops or focus groups with stakeholders during the pilot could resolve specific issues, for example refining the definition of terms used in licensing documents or guidance.

Comments were also received which were in the form of questions, some of which highlighted some common areas of concern. Some of these are already addressed in the consultation webinar Q & A document, although it is acknowledged that some respondents would not have seen this prior to responding because it was published mid-consultation. The ER Project will add new or frequently asked questions arising from the consultation exercise to this document in due course.

Table 1. Changes made to documents and processes in advance of the ER pilot as a result of the consultation

Broad theme / comment	Ref.	ER Project response
Accreditation Levels Table		
Mating sites of common and soprano pipistrelle should be in Accreditation Level 2 rather than Accreditation Level 1. See also comments on brown long-eared mating sites at ref. 4.	1	The common and soprano pipistrelle mating sites originally proposed for Accreditation Level 1 were sites used by small numbers of bats (i.e. one resident male bat and visiting females). They did not include suspected mating sites where larger numbers are present, nor any type of swarming site. It is acknowledged however that at sites used by apparently small numbers of bats (at any one time), there could be uncertainties about the number of visiting female bats throughout the mating season, as turnover may be difficult to estimate. Mating sites are classed as breeding sites[2]. Although common and soprano pipistrelle mating sites may be relatively numerous across a landscape it is

[2] Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC. 2007. https://ec.europa.eu/environment/nature/conservation/species/guidance/pdf/guidance_en.pdf

		likely that these roost types have a higher conservation significance than other roosts inhabited by small numbers of bats (at any one time) such as day roosts. Therefore, the ER Project will move common and soprano pipistrelle mating sites from Accreditation Level 1 to Accreditation Level 2. Brown long-eared bat mating sites (not including any type of swarming site) will be moved to Accreditation Level 2 from Accreditation Level 3 (see ref. 4 below). Common and soprano pipistrelle swarming sites will remain in Accreditation Level 3. This may appear inconsistent with the inclusion of maternity and hibernation sites of these species in Accreditation Level 2. However, swarming behaviour in pipistrelles is not well understood and any site coming forward for mitigation licensing would warrant full assessment.
Transitional/occasional roosts of Group 2 or 3 species should be in Accreditation Level 1 rather than Accreditation Level 2.	2	The ER Project is of the view that it makes sense to put night, feeding, day, transitional/occasional roosts of a given species group into the same Accreditation Level, rather than splitting up night, feeding and day, transitional/occasional roosts into separate Accreditation Levels. Transitional/occasional and day roosts of Group 2 species will be moved from Accreditation Level 2 to Accreditation Level 1, to join night and feeding roosts for those species. This will make practicalities of licensing and accreditation more straightforward without introducing unacceptable risks. Transitional/occasional roosts of Group 3 species will remain in Accreditation Level 2, along with night, feeding and day roosts of those species.
Does competence with all of the relevant species have to be demonstrated to gain accreditation to a particular level? This will exclude those who have competence with only some of the relevant species. Need to take account of regionality of experience.	3	This question was discussed at the consultation webinar and is included in the consultation webinar Q & A document, although the precise evidence requirements for the pilot had not been finalised at that stage. This has now been clarified further and the proposal for licensing in the pilot is that the species in each Accreditation Level will be split up into species annexes. Examples provided by candidates to prove competence (through portfolio submission and structured interview) would need to be drawn from the species groups (not every individual species) relevant to the species annexes being applied for. Examples would not need to be provided for species groups in annexes the candidate is not applying for.
Brown long-eared mating sites should be in Accreditation Level 2.	4	Brown long-eared bats may mate at autumn swarming sites, and also other sites such as hibernation roosts. The ER Project agrees that where mating occurs away from autumn swarming sites, these roosts should be in the same Accreditation Level as brown long-eared bat maternity and hibernation roosts. Therefore brown long-eared mating sites (but not any form of swarming site) will be moved from Accreditation Level 3 to Accreditation Level 2.
Migrant species, such as Geoffroy's bat, Pond bat, Savi's and Kuhl's pipistrelle should be included.	5	Mitigation licences for these species would be expected to be very rare. However, the intention is that any cases not otherwise covered in the Accreditation Levels Table should fall into Accreditation Level 3 and directed for full manual assessment. Therefore, 'other species' will be included in Accreditation Level 3.
Accreditation Levels Table not set out clearly, particularly with respect to thresholds of number	6	The ER Project will make improvements to the Accreditation Levels Table before licensing opens, taking account of comments submitted in the consultation.

of roosts / number of species in different accreditation levels.		
Competencies and assessment of competencies		
Reference should be made to specific mitigation and compensation activities such as roost exclusion, supervised soft demolition, toolbox talks for contractors and supervising the installation of compensation measures.	7	The ER Project will amend the Competency Framework to include reference to specific mitigation activities.
Thermal imaging and infra-red survey techniques should be included in the Competency Framework.	8	The ER Project will amend the Competency Framework to include evidencing awareness of the use of thermal imaging, infra-red and night-vision equipment.

6.0. Conclusion

The consultation showed an overall positive response to the ER scheme, with the majority of respondents predicting good outcomes for mitigation licence holders, developers and NE. There was less alignment among respondents regarding whether they thought that the scheme would be better for bats (or not) and whether (or not) it would be misused by mitigation licence holders or developers.

There was a positive reaction to the ER Accreditation Levels, the Competency Profiles and the Sample Competency. The majority of respondents favoured one scheme to cover both structures and trees and the inclusion of activity surveys in the Competency Framework. However, fewer respondents favoured the inclusion of sonogram analysis.

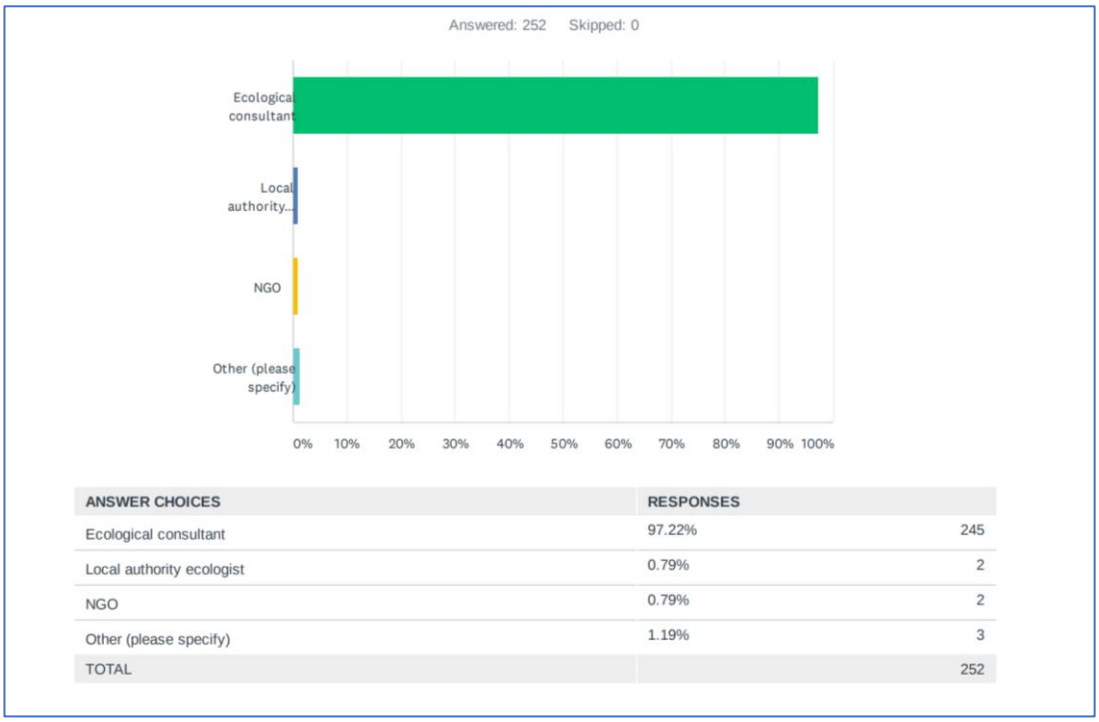
When asked if other types of assessment could be used and if the sifting process would pick up the right cases for manual assessment, just over half of respondents said they did not know. Bearing in mind limited information was provided on both of these aspects of the scheme this is perhaps not a surprising result. Finally, the majority of respondents were keen to take part in the pilot.

As a result of the consultation, some of the documents and processes have been updated in advance of the ER pilot. Numerous other valuable comments were received which will be analysed and considered further during the pilot. Comments were also received which were in the form of questions, some of which highlighted some common areas of concern. Many of these are already addressed in the consultation webinar Q & A document (although this was only published mid-consultation), but new questions arising will be added and published in due course.

We would like to thank those who responded to the consultation for their time and look forward to working with some on the pilot in 2021.

Appendix 1. Responses to Questions 1-14 The Respondents

Question 1. Which stakeholder group do you represent?



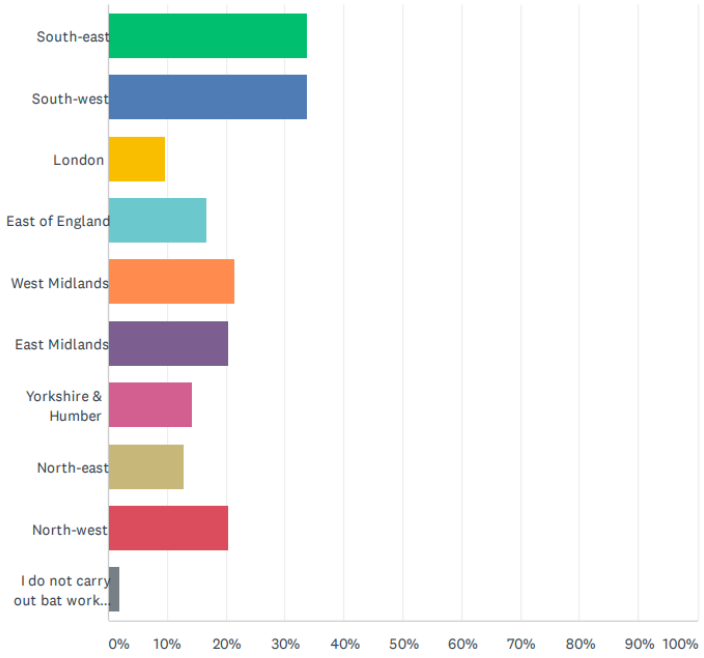
ANSWER CHOICES	RESPONSES	
Ecological consultant	97.22%	245
Local authority ecologist	0.79%	2
NGO	0.79%	2
Other (please specify)	1.19%	3
TOTAL		252

The 'Other' responses were from a volunteer bat worker, a Bat Group member and a representative from a sustainable transport charity.

Question 2. In which English region do you carry out most of your bat mitigation work? Tick all that apply.

This question was designed so that multiple options could be ticked; 465 responses were received so at least some respondents ticked more than one option.

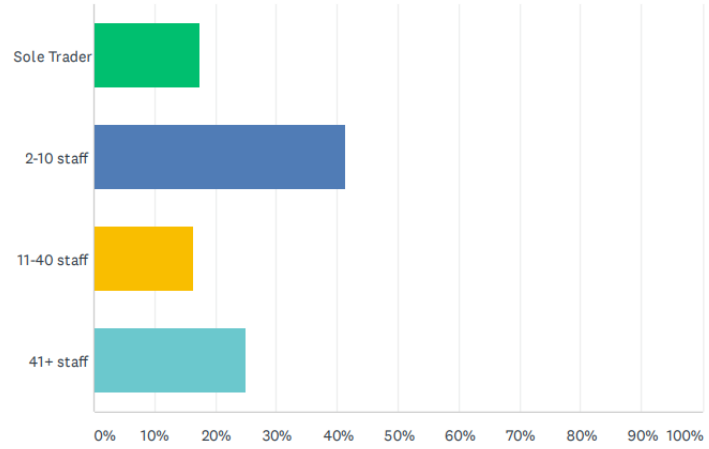
Answered: 252 Skipped: 0



ANSWER CHOICES	RESPONSES	
South-east	33.73%	85
South-west	33.73%	85
London	9.52%	24
East of England	16.67%	42
West Midlands	21.43%	54
East Midlands	20.24%	51
Yorkshire & Humber	14.29%	36
North-east	12.70%	32
North-west	20.24%	51
I do not carry out bat work for development in England	1.98%	5
Total Respondents: 252		

Question 3. How many people work in your organisation in total?

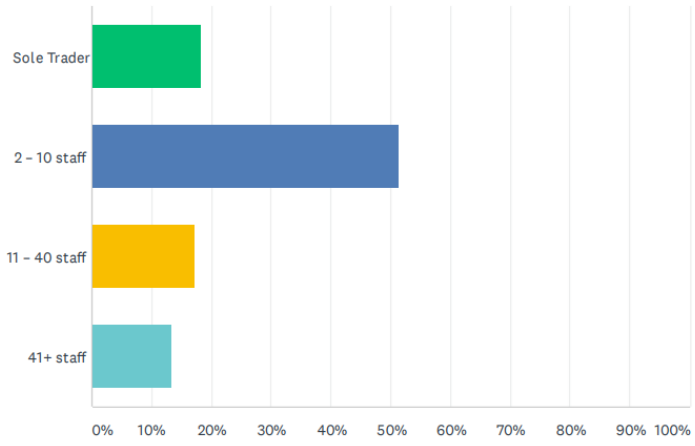
Answered: 252 Skipped: 0



ANSWER CHOICES	RESPONSES	
Sole Trader	17.46%	44
2-10 staff	41.27%	104
11-40 staff	16.27%	41
41+ staff	25.00%	63
TOTAL		252

Question 4. How many ecologists work in your organisation in total?

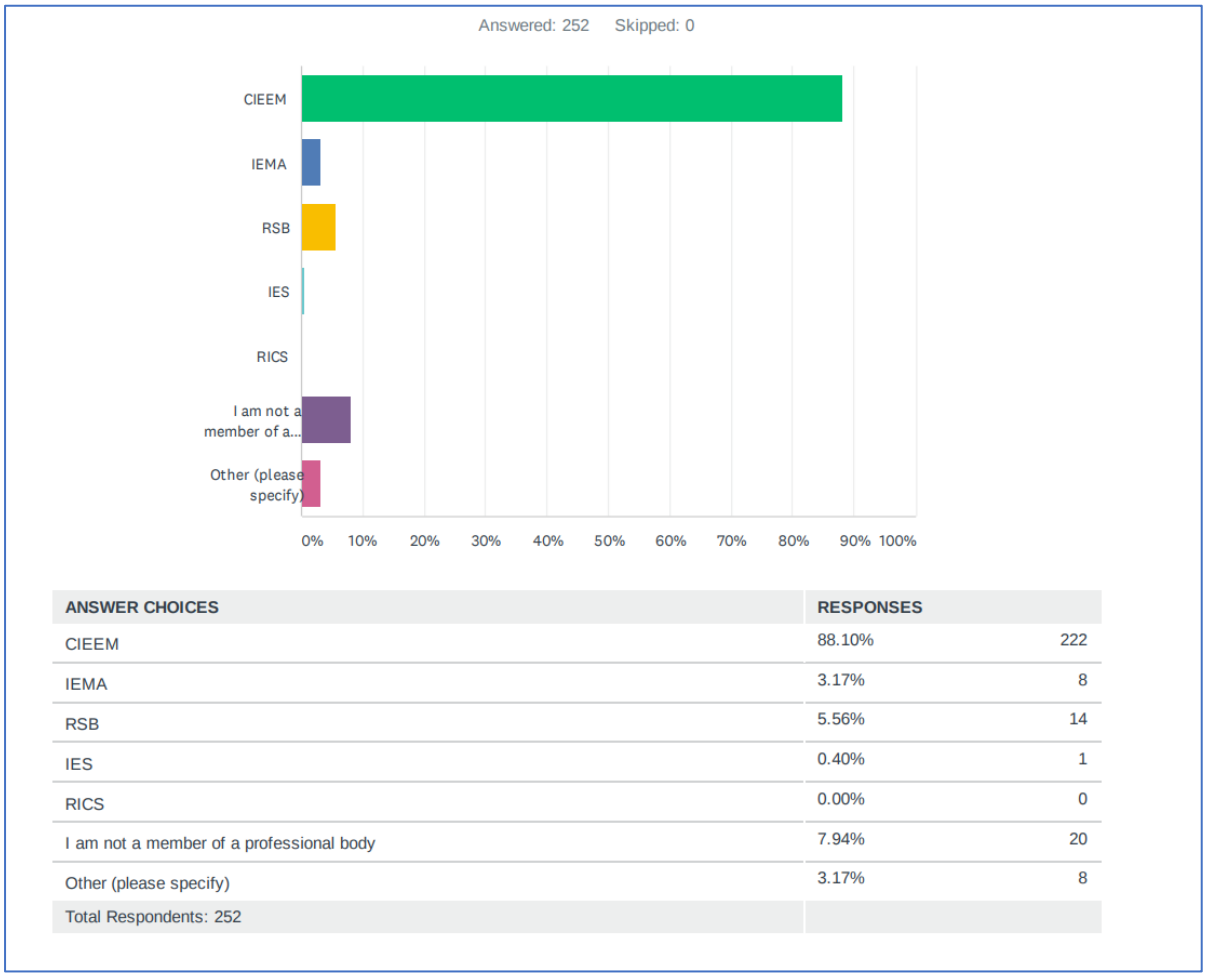
Answered: 252 Skipped: 0



ANSWER CHOICES	RESPONSES	
Sole Trader	18.25%	46
2 – 10 staff	51.19%	129
11 – 40 staff	17.06%	43
41+ staff	13.49%	34
TOTAL		252

Question 5. Are you a member of a professional body and, if so, which? Tick all that apply.

This question was designed so that multiple options could be ticked; 273 responses were received so a small number of respondents ticked more than one option.



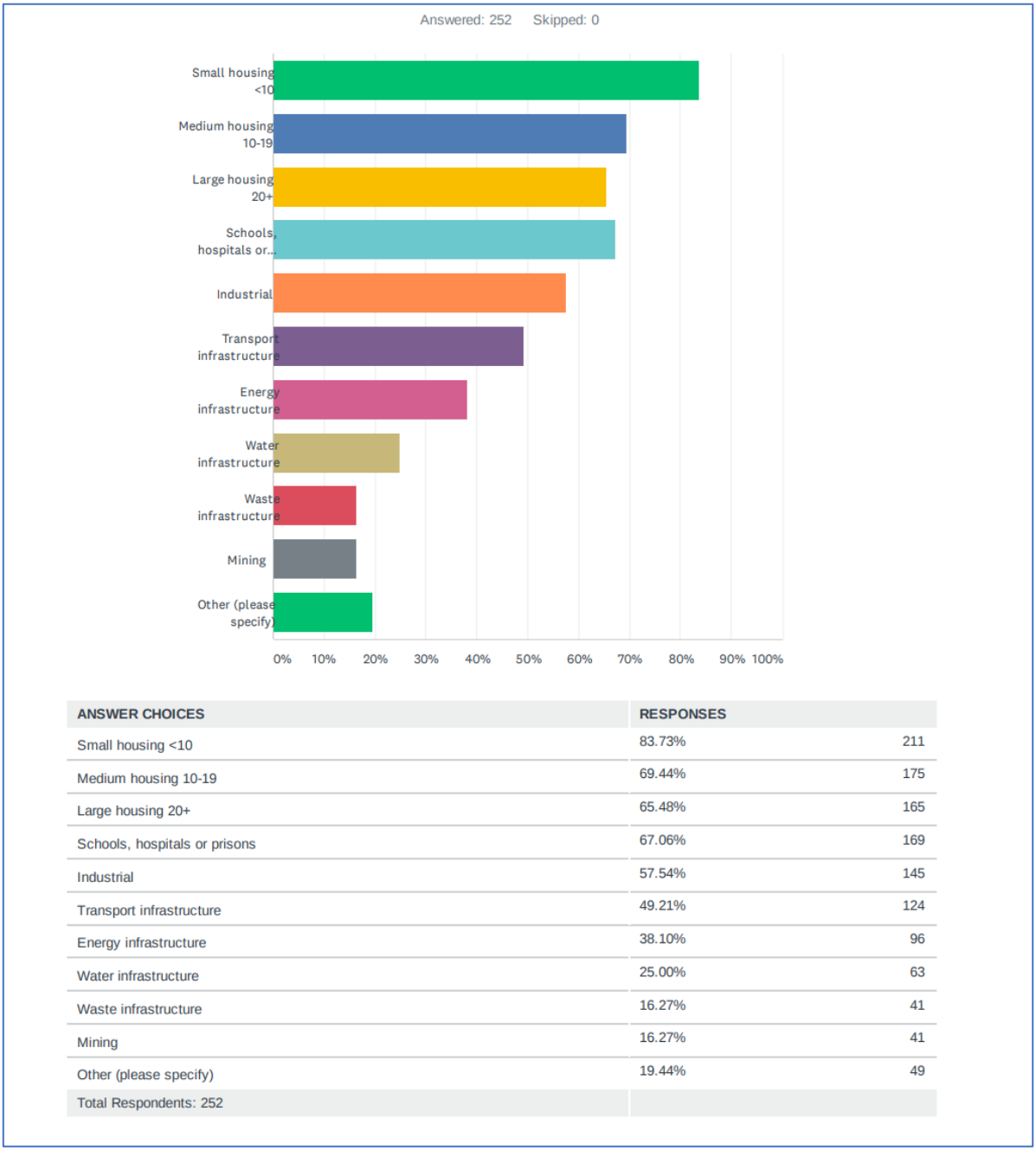
ANSWER CHOICES	RESPONSES	
CIEEM	88.10%	222
IEMA	3.17%	8
RSB	5.56%	14
IES	0.40%	1
RICS	0.00%	0
I am not a member of a professional body	7.94%	20
Other (please specify)	3.17%	8
Total Respondents: 252		

The 'Other' responses were:

- Chartered Biologist
- Chartered Environmentalist
- Society for the Environment
- Institute of Chartered Foresters
- Arboricultural Association
- British Ecological Society
- Association of Environmental and Ecological Clerks of Works
- Marine Biological Association

Question 6. What type of projects do you typically get involved with? Tick all that apply.

This question was designed so that multiple options could be ticked; 1279 responses were received – it is likely that most respondents ticked more than one option.



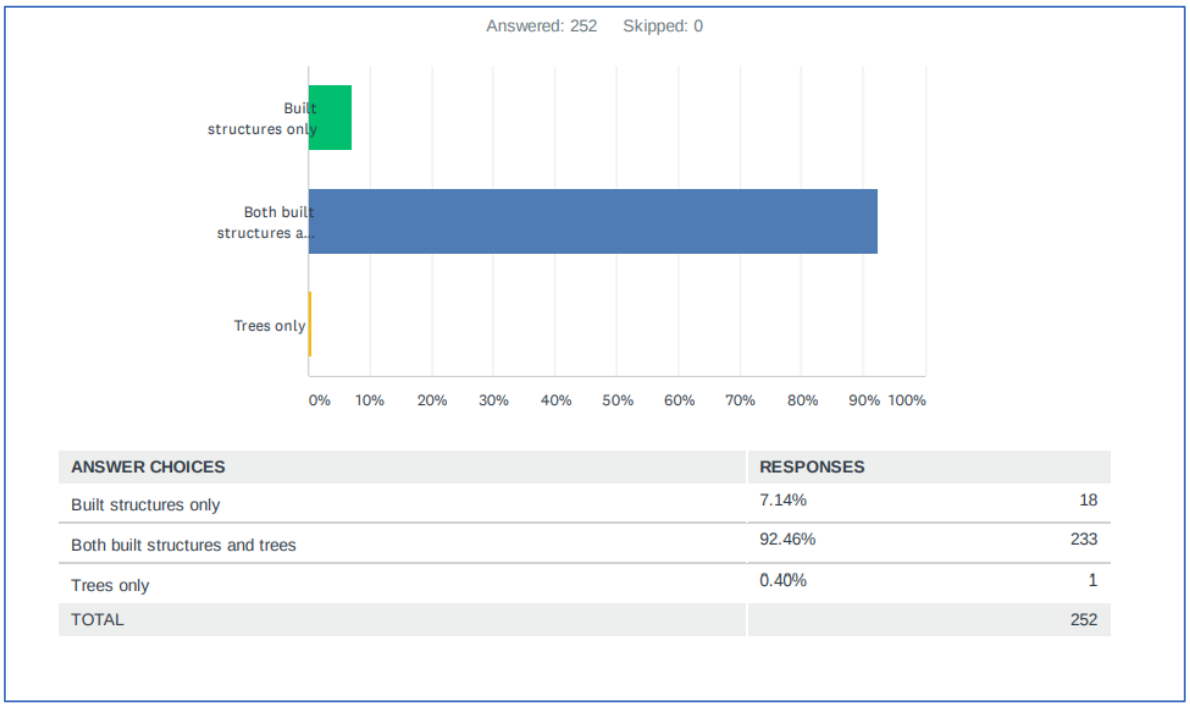
ANSWER CHOICES	RESPONSES	
Small housing <10	83.73%	211
Medium housing 10-19	69.44%	175
Large housing 20+	65.48%	165
Schools, hospitals or prisons	67.06%	169
Industrial	57.54%	145
Transport infrastructure	49.21%	124
Energy infrastructure	38.10%	96
Water infrastructure	25.00%	63
Waste infrastructure	16.27%	41
Mining	16.27%	41
Other (please specify)	19.44%	49
Total Respondents: 252		

The 'Other' responses were:

- Householder projects e.g. extensions
- Barn conversions
- Historic buildings/listed buildings/heritage
- National Trust/English Heritage properties
- Large private estates
- Churches/other religious buildings
- Work for councils/housing associations

- Recreational
- Commercial
- Military
- NGO developments
- Infrastructure
- Railway bridges/tunnels/culverts
- Quarries/minerals
- Woodland/habitat management
- Parkland restoration
- Agriculture/Environmental Land management
- Forestry
- Ports
- Research
- Conservation
- Health and safety e.g. structures and trees

Question 7. Do you work on projects involving bat roosts in…..

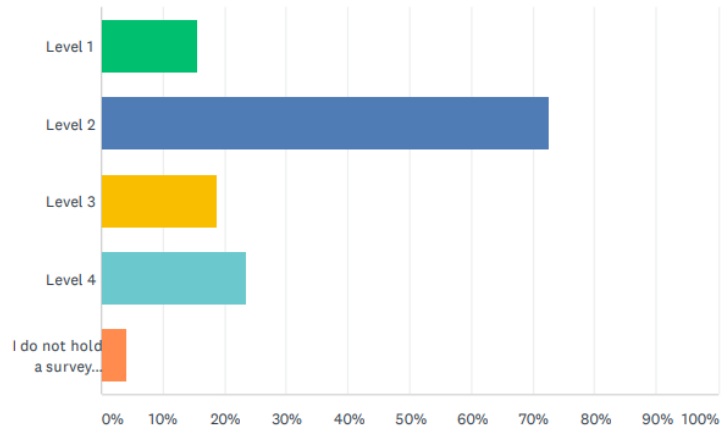


ANSWER CHOICES	RESPONSES	
Built structures only	7.14%	18
Both built structures and trees	92.46%	233
Trees only	0.40%	1
TOTAL		252

Question 8. What level of bat survey licence do you hold? Tick all that apply.

This question was designed so that multiple options could be ticked; 338 responses were received so at least some respondents ticked more than one option.

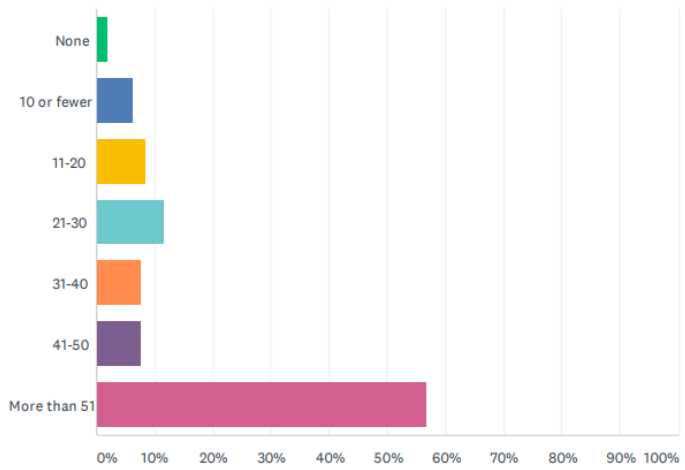
Answered: 252 Skipped: 0



ANSWER CHOICES	RESPONSES	
Level 1	15.48%	39
Level 2	72.62%	183
Level 3	18.65%	47
Level 4	23.41%	59
I do not hold a survey licence	3.97%	10
Total Respondents: 252		

Question 9. How many projects in total have you worked on in the last 3 years where you provided advice relating to bats?

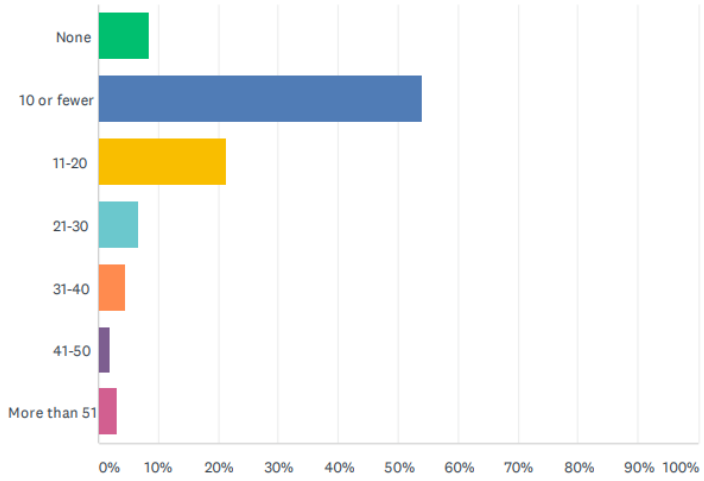
Answered: 252 Skipped: 0



ANSWER CHOICES	RESPONSES	
None	1.98%	5
10 or fewer	6.35%	16
11-20	8.33%	21
21-30	11.51%	29
31-40	7.54%	19
41-50	7.54%	19
More than 51	56.75%	143
TOTAL		252

Question 10. How many projects have you worked on in the last 3 years where the need for mitigation licensing was avoided through carefully designed project delivery?

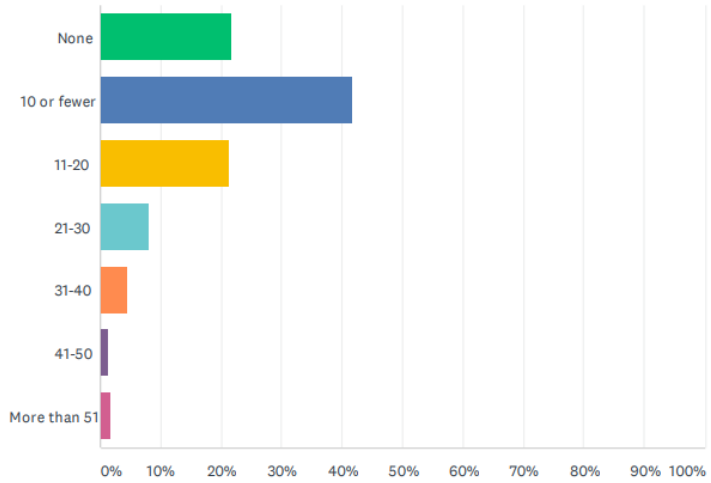
Answered: 252 Skipped: 0



ANSWER CHOICES	RESPONSES	
None	8.33%	21
10 or fewer	53.97%	136
11-20	21.43%	54
21-30	6.75%	17
31-40	4.37%	11
41-50	1.98%	5
More than 51	3.17%	8
TOTAL		252

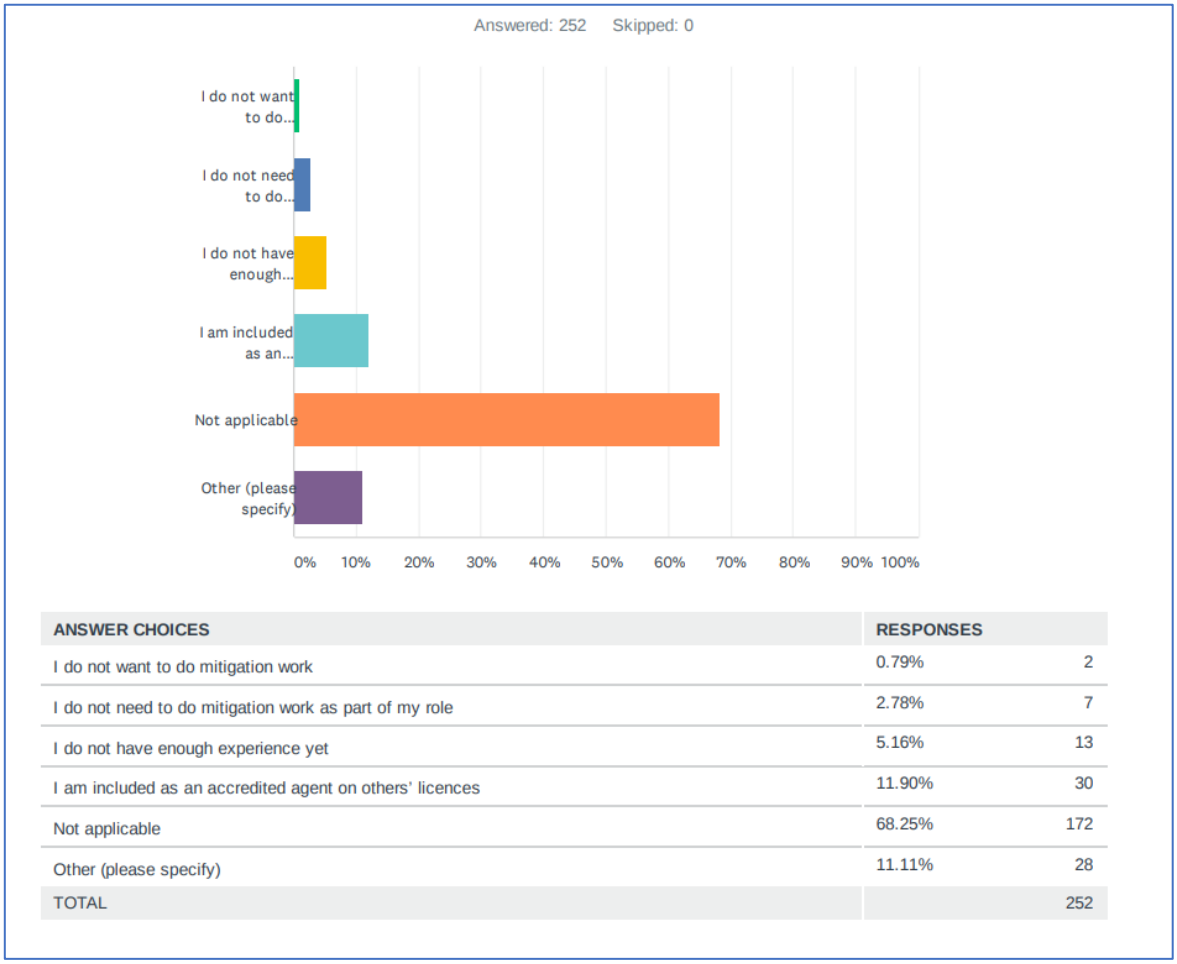
Question 11. How many bat mitigation licences have you held in the last 3 years?

Answered: 252 Skipped: 0



ANSWER CHOICES	RESPONSES	
None	21.83%	55
10 or fewer	41.67%	105
11-20	21.43%	54
21-30	7.94%	20
31-40	4.37%	11
41-50	1.19%	3
More than 51	1.59%	4
TOTAL		252

Question 12. If you carry out bat surveys for development but don't hold mitigation licences, why is that?



ANSWER CHOICES	RESPONSES	
I do not want to do mitigation work	0.79%	2
I do not need to do mitigation work as part of my role	2.78%	7
I do not have enough experience yet	5.16%	13
I am included as an accredited agent on others' licences	11.90%	30
Not applicable	68.25%	172
Other (please specify)	11.11%	28
TOTAL		252

28 respondents ticked the 'Other' option and their responses are provided in full below.

This raw data has not been amended in any way and in some cases represents a misunderstanding or misconception on the part of the respondent – the comments should be read with this in mind.

- Whilst having held more in previous years, I have been involved in a larger project over the last three years and therefore have not been the main ecologist on the licences as before however I have continued to be named on licences in order to assist as required.
- While I assist with activity surveys and am experienced in bat mitigation work (over 20yrs experience as an ecological consultant) I do not have a survey licence, that work being undertaken by appropriately licensed ecologists.
- Many or the projects I work on are large scale and can be designed to avoid the most sensitive areas and retain / protect areas which are important, informed by surveys. I have worked as an accredited agent on others' licenses for smaller projects (i.e. roof repairs / building renovation) where avoidance is not possible.
- My business partner holds the bat licences, and is accredited on all annexes of the BMCL scheme. I hold dormouse, GCN, badger licences, so we split the competencies required to run a consultancy. I am working towards getting mitigation licences, but the bat handling experience required is onerous, and difficult to complete without significant time investment on a voluntary basis, which is tricky with a young family/maternity leave etc.
- In part: senior advisory role to others' licences; in part, reflective of the stages very large projects with high bat impacts have reached. Have held more licences in the past.
- Because all licences had to be in my previous Directors name alone.

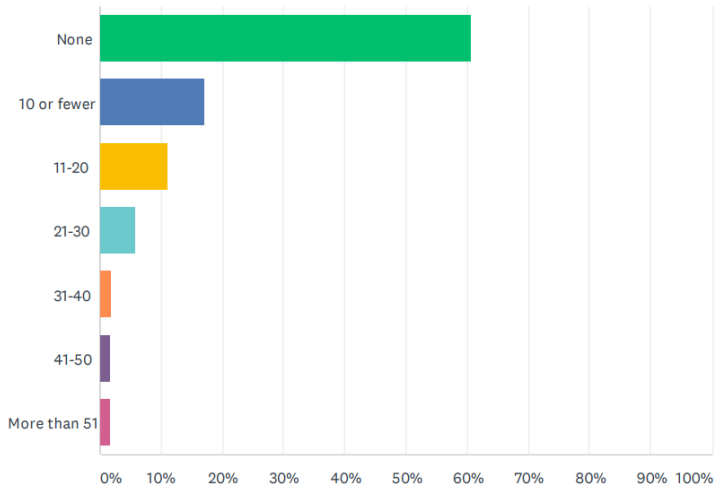
- I work in Wales mainly so all my development licence are in Wales but I sub in England.
- I do not yet hold a Level 2 bat licence.
- I work with consultants if licenses are required, I was going to start the process towards accredited agent/ named license but then heard about this process so agreed to see how this developed first.
- I work in Wales with an NRW bat disturbance licence.
- As a company we don't seem to apply for many bat mitigation licences. The mitigation licences we tend to hold are more often for other EPS such as dormouse, badger etc.
- The Natural England document "Experience in Bat Mitigation: Guidance for Ecologists and Developers" implies a requirement to have previously worked on three mitigation licence applications, or to provide two references. As an independent ecologist I have no access to potential referees and have therefore been unable to obtain opportunity to work on mitigation licences. I have attempted to discover from Natural England whether there is any flexibility within these requirements, but have not received any clear response.
- Not everyone wants to do the licensable work for bats and are just happy to survey for them. It means more responsibility for some and that is personal choice.
- To date I've subcontracted licence holder work and acted as an accredited agent. I would prefer to be the licence holder, but in most cases it's possible to avoid the need for a licence or the project doesn't go ahead. I haven't worked on quite enough licences to have the requisite number of references, but nearly there.
- I mainly work in Wales.
- Other ecologists would like to hold their own mitigation licences so I am now more involved in discussion of mitigation and licence document review.
- I am a new ecologist and just recieved my class 1 licence. I haven't had any projects of my own yet.
- Other licenced people in the company take on the work.
- Due to Covid, have been unable to get hand netting experience in order to get my class 2 bat licence. Then would have to wait a number of years to hold mitigation licences, despite having assisted in a number of mitigation licences in the past.
- In Dorset, where I do the bulk of my work, there is a system that, for low risk projects, provided there are appropriate safeguards in place, including appropriate working methods and mitigation and a sufficient level of survey effort has been undertaken, a plan can be submitted, through the planning process, which is reviewed by the county ecologists, that means a mitigation licence is not required. Where I undertake works in counties that do not have this system, where I can, I plan the works in such a way (including, for instance, appropriate timing) as to avoid committing an offence.
- I have just gained sufficient experience and references. I will be applying as and when a suitable first licence project arrives. The advent of BMCL/Low Impact did make this more difficult, as previously one of my recent projects qualifying for BMCL would have been my first one as named ecologist.
- I don't really understand the question.
- In Dorset, where I do most of my work, there is a system (the Dorset Biodiversity Protocol) that allows us, in certain circumstances, to submit a mitigation plan to undertake loa risk works (which account for most!but not all, of my work) whereby all the same safeguards that would be in place under a licence, such as timing, working methods, ECoW and mitigation/enhancement, but a mitigation licence is not applied for. The outcome is the same, in terms of safeguarding the bats, but the costs to the client is much less, so also plays a role in the perception of bats. The mitigation plans are reviewed and approved by the county ecologists.
- I have been waiting for the right project opportunities (and covid controls to ease) to be officially assessed by a colleague at my company before they will provide a reference for both Level 1 and 2 licenses. The colleague is my mentor and has witnessed me undertaking numerous surveys previously.
- I hold few mitigation licences despite carrying out the survey work, designing and implementing mitigation as in the majority of cases the site is eligible for registration under the Bat Mitigation Class Licence (BMCL). Recommending this option represents the best advice for the client (in terms of cost, timeline etc.) which ethically I am required to provide/under my professional code of conduct. As I am not a registered consultant under BMCL I work with an external partner consultant (as an accredited agent) who is a registered consultant in order to deliver this service for the client. Therefore in the last three years all but one site has been

eligible for BMCL and therefore I have not acted as the named ecologist but only as an accredited agent.

- Trying to obtain Level 2 bat licence but having issues with getting experience in handling bats. I have been having practical training on sites for 2 years by a Full CIEEM member from another company who has years of experience in bat mitgation work as my company does not have personnel who have undertaken this work before.
- Assisting a licence holding whilst gaining experience.
- Generally most of the projects we work on would full under BMCL which no one in our company holds, therefore all the work has to be outsourced.

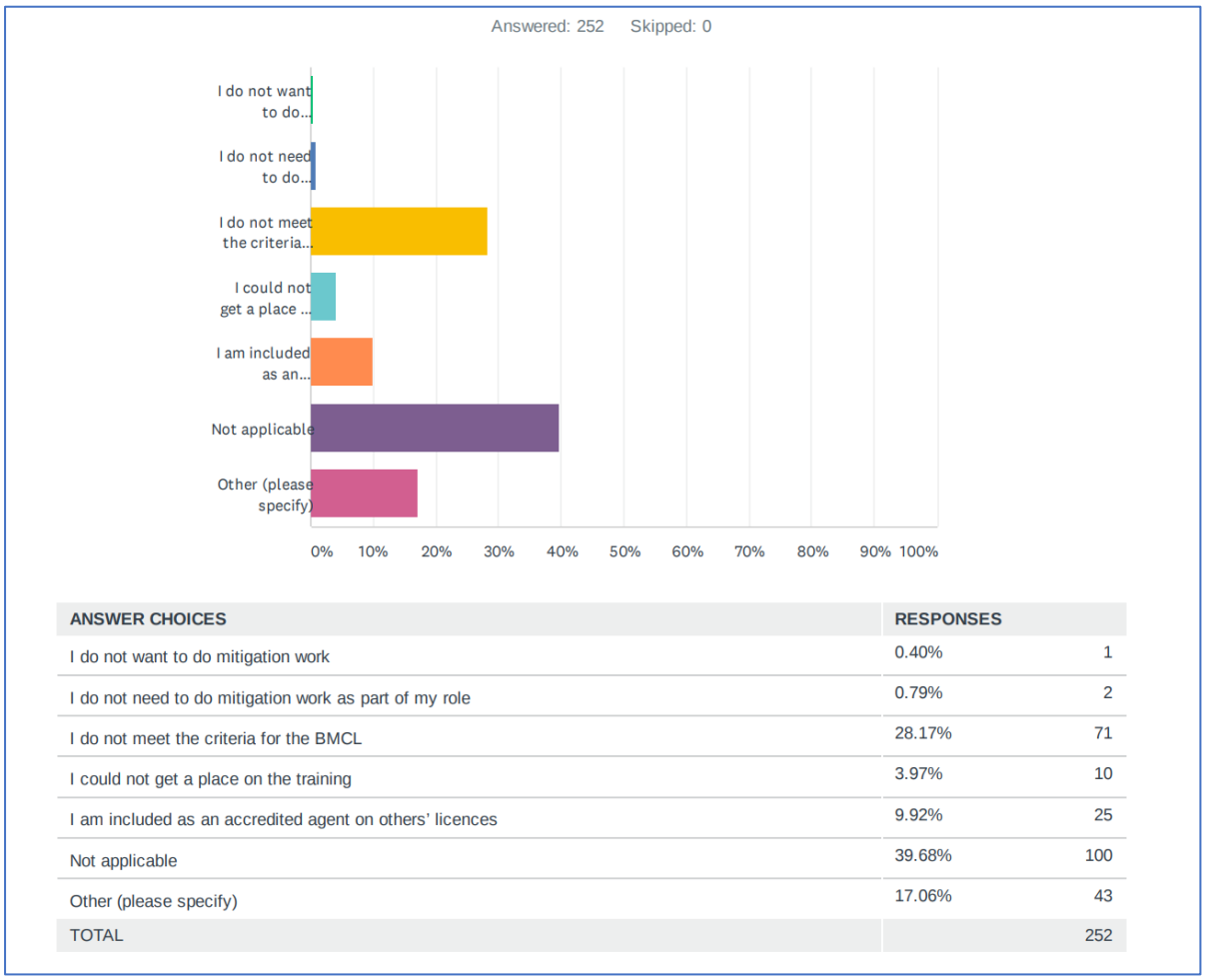
Question 13. How many Bat Mitigation Class Licence (BMCL, previously Bat Low Impact Class Licence or BLICL) site registrations have you made in the last 3 years?

Answered: 252 Skipped: 0



ANSWER CHOICES	RESPONSES	
None	60.71%	153
10 or fewer	17.06%	43
11-20	11.11%	28
21-30	5.95%	15
31-40	1.98%	5
41-50	1.59%	4
More than 51	1.59%	4
TOTAL		252

Question 14. If you carry out surveys for development but don't hold BMCL site registrations, why is that?



ANSWER CHOICES	RESPONSES	
I do not want to do mitigation work	0.40%	1
I do not need to do mitigation work as part of my role	0.79%	2
I do not meet the criteria for the BMCL	28.17%	71
I could not get a place on the training	3.97%	10
I am included as an accredited agent on others' licences	9.92%	25
Not applicable	39.68%	100
Other (please specify)	17.06%	43
TOTAL		252

43 respondents ticked the 'Other' option and their responses are provided in full below.

This raw data has not been amended in any way and in some cases represents a misunderstanding or misconception on the part of the respondent – the comments should be read with this in mind.

- I have been waiting since April 2019 to undertake the training, despite numerous attempts to contact Natural England.
- Initially I did not meet criteria, then could not get place on course, now am an RC but also was an AA on another RC's licence. There's been no chance for me to register a site in these 3 years.
- I haven't got round to applying for any BMCL but have also been put off by the complexity as I don't usually submit more than 3 or 4 licences per year as I'm part-time freelance. I'm also a LPA Ecologist (have completed consultation for stakeholders too) and wouldn't say that there is a strong correlation between quality of work/consultant and BMCL registration. I also don't like the disingenuous approach to mitigation in BMCL - it isn't 'enhancement', it is mitigation!
- Only recently met the criteria for the BMCL.
- I have not reviewed the latest requirements and given how little these licenses are required and that we have an existing registered consultant, my employer is unlikely to pay for any required training without a solid business case.
- See above - my business partner is the named ecologist for this type of work.
- I have looked into it and I think I qualify but it's a bit confusing what you have to have done to qualify and it's quite overwhelming. I have been a bit busy with work over the last few years

and so never found time to look into it more and apply. The company I work for has a contact who has a low impact licence and so we use that if one is needed.

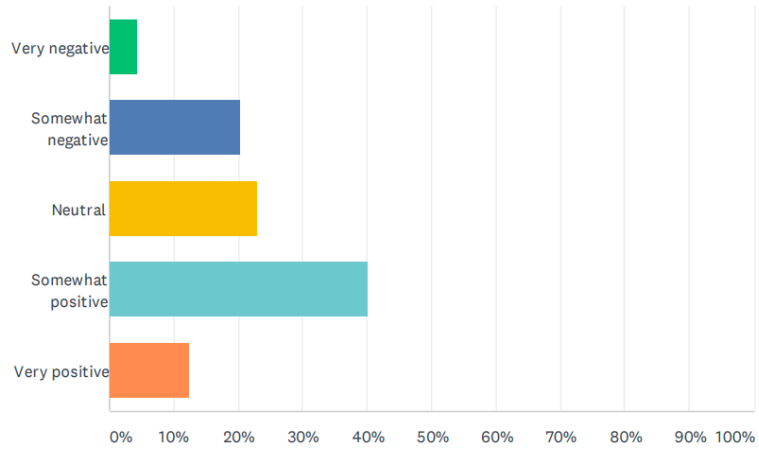
- I have only just met the conditions for being accredited and will be looking to become accredited asap as soon as training is available.
- Initially I did not meet the criteria and over time the criteria altered and I simply gave up on the idea.
- Because I am not a member of CIEEM.
- My BMCL lapsed and as others in the practice have it, I have not needed to renew.
- Most of my work is in Wales.
- I have only recently (Dec 2020) become a RC under the BMCL.
- Currently applying for BMCL application.
- I dont fully understand the myriad different licensing levels at play...they desperately need simplifying 1. the make sure people adhere to the rules. 2. to make it easy for people to comply with the rules. 3. to make it easy to understand. When i have proposed avoidance of harm. disturbance or destruction...the developer will comply and the property owner...but the Local Planning Authorities hardly ever agree that avoidance will occur and adopt an "ultra precautionary" stance and demand a licence ...giving bats and ecology/ecologists a bad name...as they blame the consultant ecologist and wont take the blame themselves....and are often above reproach and will not provide a rationale understood by the developer.
- Due to small volume of licences needed, I have not considered BMCL.
- I work with consultants if licenses are required, I was going to start the process towards accredited agent/ named license but then heard about this process so agreed to see how this developed first.
- I work in Wales.
- Ineligible to qualify. I am not a member of CIEEM.
- Not a member of a professional body.
- These are held by other team members.
- I have only recently been registered in the last few weeks following a 2 year wait to attend the training workshop and so have not yet registered any sites, however there are several likely to be registered in the coming year.
- I have applied to be registered for the BMCL but not had my application processed yet.
- Only just meet criteria so when I have time I may apply.
- We have people in the company with this licence and they do these licences, I actually don't know how to apply for this kind of licence, it isn't well publicised.
- Not a member of a professional body but meet the remaining criteria.
- Two reasons: 1 - I do not meet the criteria currently however will be looking to apply in 2021 2 - I am included as an accredited agent on other's licences.
- A combination of not having enough experience and knowledge of bat mitigation but mostly avoiding the need for mitigation by avoiding any impact to bats in the projects' design.
- I mainly work in Wales and work as a subbie in England.
- I have only just reached the criteria for BMCL this year, so have not had time to investigate or apply for this.
- We contracted in low impact class licence holders as even with experience of several mitigation sites I did not hold sufficient mitigation licences to apply.
- Only work in England occasionally in my current role, so rarely need BMCL.
- Only just recieved licence. Not had any sites yet.
- I have just met the criteria and so am going to register now.
- I have only just undertaken the BMCL training.
- Other members of team do BMCL work (previously held but mainly work in Wales so not cost effective to maintain).
- Same answer as above, planning the works to avoid committing an offence or, in Dorset, using the alternative system.
- Acted as AA on another Seniors licence, and just got enough experience ti meet criteria so will be applying in the coming weeks.

- I tried a number of times but was told I didn't have enough experience.....bizarre as I know lots of consultants far less qualified/experienced than I. Also very expensive as have to go to Peterborough, I have two children, cost of two days no work, travel and accommodation.
- In part, please see the previous answer regarding the system operating in Dorset for low risk developments.
- Just completed the training and pending assessment will be registered to start site registrations.
- I meet criteria but have not been in the position to book a place on the training etc yet.
- I have only just gained the criteria required and am in the process of applying.

Appendix 2. Responses to Questions 15-19 Initial Responses to the Scheme

Question 15. What is your initial reaction to the ER scheme?

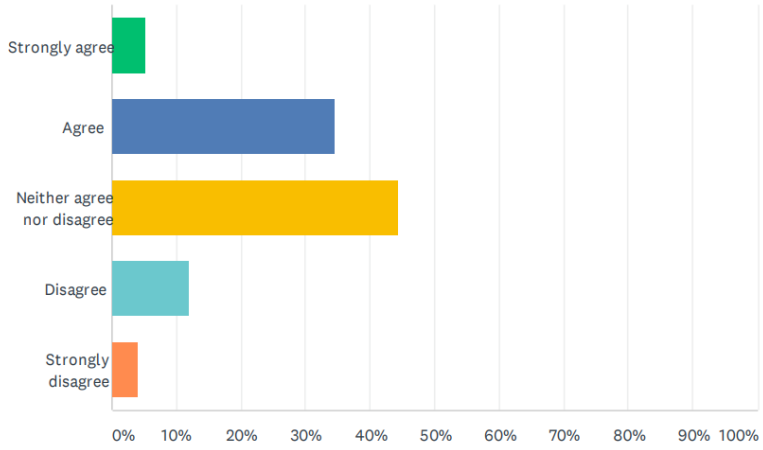
Answered: 252 Skipped: 0



ANSWER CHOICES	RESPONSES	
Very negative	4.37%	11
Somewhat negative	20.24%	51
Neutral	23.02%	58
Somewhat positive	40.08%	101
Very positive	12.30%	31
TOTAL		252

Question 16. Do you think the scheme will improve outcomes for bats?

Answered: 252 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly agree	5.16%	13
Agree	34.52%	87
Neither agree nor disagree	44.44%	112
Disagree	11.90%	30
Strongly disagree	3.97%	10
TOTAL		252

Question 17. Do you think the scheme will…..?

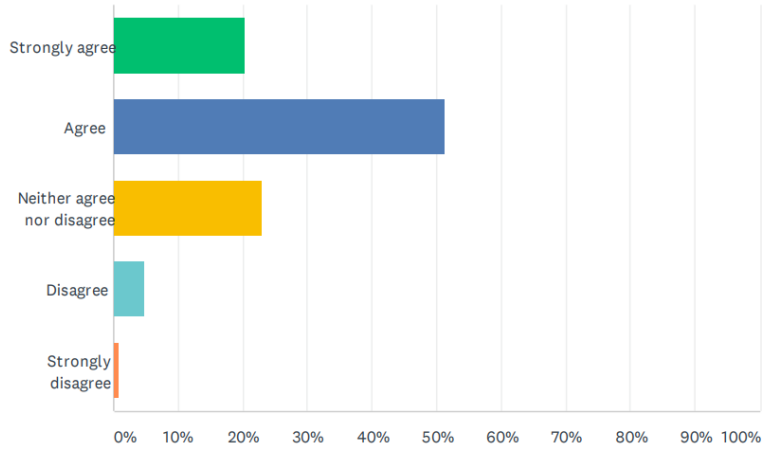
	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
Improve professional standards among mitigation licence holders?	9.52% 24	48.02% 121	24.60% 62	15.48% 39	2.38% 6	252
Set professional standards too high?	3.97% 10	10.32% 26	42.46% 107	37.30% 94	5.95% 15	252
Set professional standards too low?	0.40% 1	3.17% 8	38.49% 97	46.83% 118	11.11% 28	252
Level the playing field for mitigation licence holders by ensuring consistent standards?	3.97% 10	36.90% 93	29.37% 74	22.62% 57	7.14% 18	252
Increase accountability for mitigation licence holders?	7.54% 19	42.86% 108	31.35% 79	15.08% 38	3.17% 8	252
Be better for mitigation licence holders?	9.92% 25	38.89% 98	31.35% 79	12.70% 32	7.14% 18	252
Be misused by mitigation licence holders?	2.38% 6	18.25% 46	46.03% 116	29.76% 75	3.57% 9	252

Question 18. Do you think the scheme will…..?

	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
Reduce delay and uncertainty for developers?	21.03% 53	47.62% 120	19.44% 49	10.32% 26	1.59% 4	252
Be better for developers?	17.86% 45	53.97% 136	21.83% 55	5.16% 13	1.19% 3	252
Be misused by developers?	5.95% 15	26.19% 66	41.67% 105	23.41% 59	2.78% 7	252

Question 19. Do you think the scheme will be more efficient for Natural England?

Answered: 252 Skipped: 0

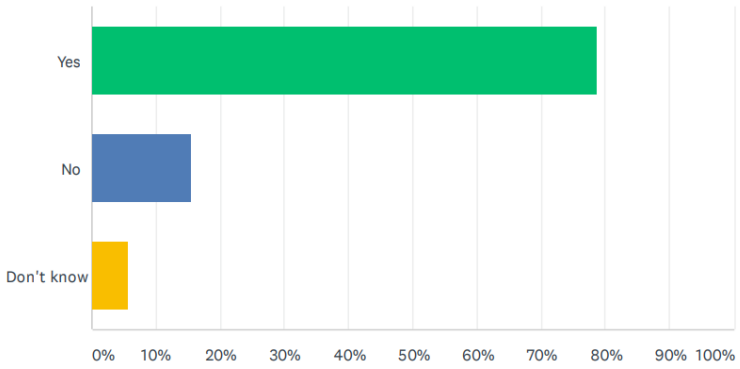


ANSWER CHOICES	RESPONSES	
Strongly agree	20.24%	51
Agree	51.19%	129
Neither agree nor disagree	23.02%	58
Disagree	4.76%	12
Strongly disagree	0.79%	2
TOTAL		252

Appendix 3. Responses to Questions 20-26 ER Accreditation Levels Document

Question 20. Look at the Earned Recognition Accreditation Levels document. In Table 1, do you think the levels (1, 2 and 3) are about right for the different species and roost types?

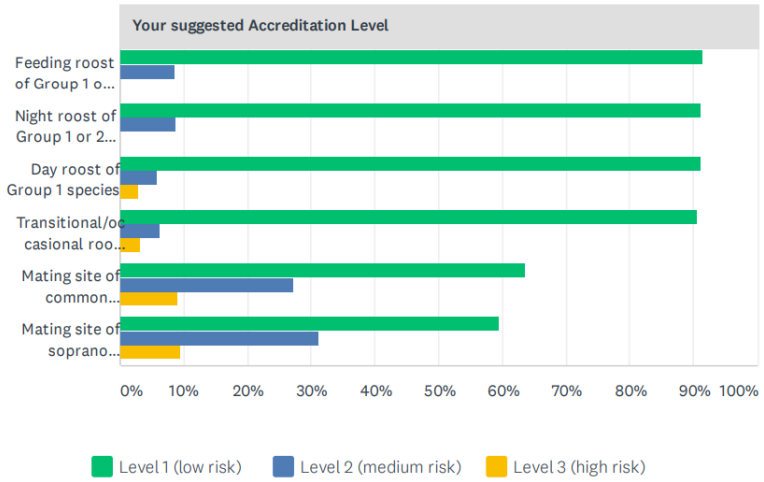
Answered: 244 Skipped: 8



ANSWER CHOICES	RESPONSES	
Yes	78.69%	192
No	15.57%	38
Don't know	5.74%	14
TOTAL		244

Question 21. If no, please complete the table below for proposed Level 1 species and roost types.

Answered: 36 Skipped: 216

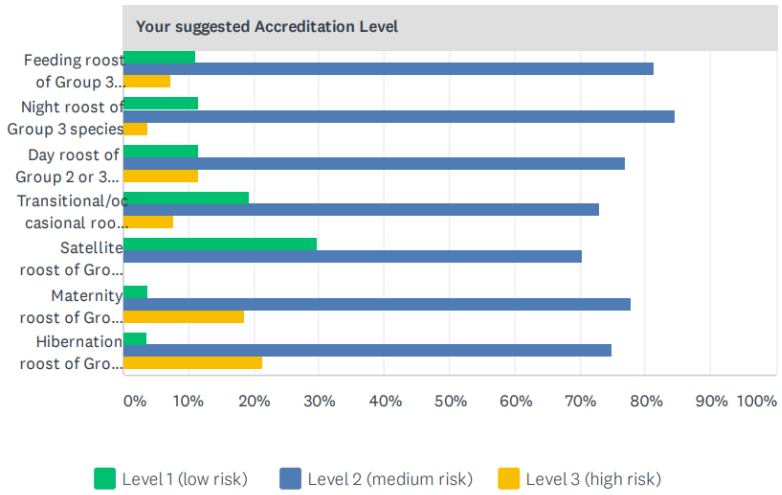


Your suggested Accreditation Level

	LEVEL 1 (LOW RISK)	LEVEL 2 (MEDIUM RISK)	LEVEL 3 (HIGH RISK)	TOTAL
Feeding roost of Group 1 or 2 species	91.43% 32	8.57% 3	0.00% 0	35
Night roost of Group 1 or 2 species	91.18% 31	8.82% 3	0.00% 0	34
Day roost of Group 1 species	91.18% 31	5.88% 2	2.94% 1	34
Transitional/occasional roost of Group 1 species	90.63% 29	6.25% 2	3.13% 1	32
Mating site of common pipistrelle only	63.64% 21	27.27% 9	9.09% 3	33
Mating site of soprano pipistrelle only	59.38% 19	31.25% 10	9.38% 3	32

Question 22. If no, please complete the table below for proposed Level 2 species and roost types.

Answered: 28 Skipped: 224

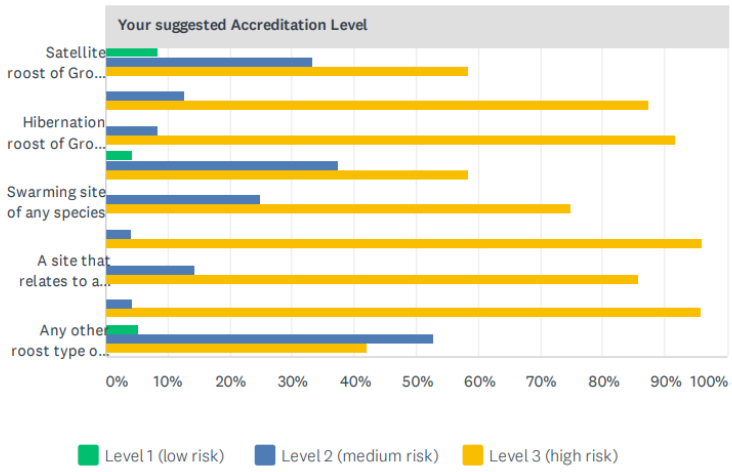


Your suggested Accreditation Level

	LEVEL 1 (LOW RISK)	LEVEL 2 (MEDIUM RISK)	LEVEL 3 (HIGH RISK)	TOTAL
Feeding roost of Group 3 species	11.11% 3	81.48% 22	7.41% 2	27
Night roost of Group 3 species	11.54% 3	84.62% 22	3.85% 1	26
Day roost of Group 2 or 3 species	11.54% 3	76.92% 20	11.54% 3	26
Transitional/occasional roost of Group 2 or 3 species	19.23% 5	73.08% 19	7.69% 2	26
Satellite roost of Group 1 species	29.63% 8	70.37% 19	0.00% 0	27
Maternity roost of Group 1 species	3.70% 1	77.78% 21	18.52% 5	27
Hibernation roost of Group 1 species	3.57% 1	75.00% 21	21.43% 6	28

Question 23. If no, please complete the table below for proposed Level 3 species and roost types.

Answered: 26 Skipped: 226

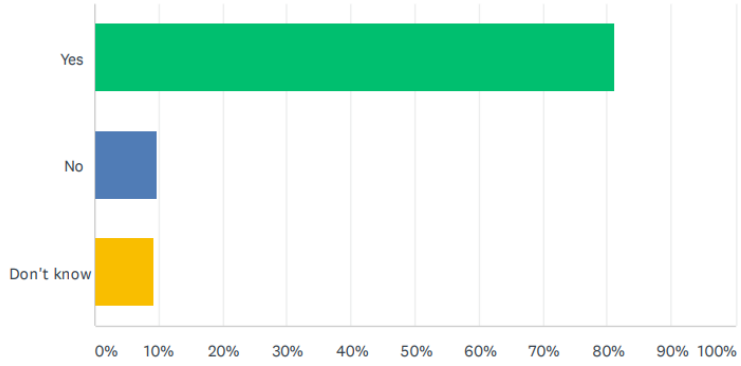


Your suggested Accreditation Level

	LEVEL 1 (LOW RISK)	LEVEL 2 (MEDIUM RISK)	LEVEL 3 (HIGH RISK)	TOTAL
Satellite roost of Group 2 or 3 species	8.33% 2	33.33% 8	58.33% 14	24
Maternity roost of Group 2 or 3 species	0.00% 0	12.50% 3	87.50% 21	24
Hibernation roost of Group 2 or 3 species	0.00% 0	8.33% 2	91.67% 22	24
Mating site of any species (except common pipistrelle and soprano pipistrelle)	4.17% 1	37.50% 9	58.33% 14	24
Swarming site of any species	0.00% 0	25.00% 6	75.00% 18	24
Any roost in or related to a nationally or internationally designated site for a given species, or that has potential to qualify as a designated site for bats	0.00% 0	4.00% 1	96.00% 24	25
A site that relates to a Nationally Significant Infrastructure Project	0.00% 0	14.29% 3	85.71% 18	21
Any roost of 'high conservation significance'	0.00% 0	4.17% 1	95.83% 23	24
Any other roost type or habitat feature	5.26% 1	52.63% 10	42.11% 8	19

Question 24. Look at the Earned Recognition Accreditation Levels document. In Table 1, do you think the thresholds for numbers of species and numbers of roosts are about right for the different levels?

Answered: 239 Skipped: 13



ANSWER CHOICES	RESPONSES	
Yes	81.17%	194
No	9.62%	23
Don't know	9.21%	22
TOTAL		239

Question 25. If no, please complete the table below for proposed species and roost number thresholds for Levels 1 and 2 (Level 3 will not be subject to any specified limits on number of species or roosts involved in a site registration application).

Your proposed number															
	<2	<3	<4	<5	<6	<7	<8	<9	<10	<11	<12	<13	<14	<15	<16
Level 1 - Total number of species <4 (of species and roost types applicable to Level 1) (i.e. no more than 3 bat species on a site registration application under Level 1)	0.00% 0	42.86% 6	35.71% 5	7.14% 1	7.14% 1	7.14% 1	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0
Level 1 - Total number of roosts <8(of species and roost types applicable to Level 1) (i.e. no more than 7 roosts on a site registration application under Level 1)	0.00% 0	14.29% 2	21.43% 3	14.29% 2	21.43% 3	0.00% 0	14.29% 2	0.00% 0	0.00% 0	0.00% 0	7.14% 1	0.00% 0	0.00% 0	0.00% 0	7.14% 1
Level 2 - Total number of species <6 (of species and roost types applicable to Level 1 and/or 2) (i.e. no more than 5 bat species on a site registration application under Level 2)	0.00% 0	0.00% 0	15.38% 2	0.00% 0	61.54% 8	7.69% 1	15.38% 2	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0
Level 2 – Total number of roosts <12(of species and roost types applicable to Level 1 and/or 2) (i.e. no more than 11 roosts on a site registration application under Level 2)	0.00% 0	0.00% 0	0.00% 0	0.00% 0	7.69% 1	7.69% 1	46.15% 6	0.00% 0	7.69% 1	0.00% 0	15.38% 2	0.00% 0	0.00% 0	0.00% 0	7.69% 1

Question 26. Is there anything else that should be included in the Earned Recognition Accreditation Levels document?

114 responses to this question were received and are provided in full below.

This raw data has not been amended in any way and in some cases represents a misunderstanding or misconception on the part of the respondent – the comments should be read with this in mind.

- All species maternity colonies should be categorised as important and the Annex II sp then covered by a higher level of competence.
- At this stage it is unclear if you need to demonstrate experience with all species in the group or just some in the group or if you need to hold all three levels and if when you apply for a licence using this scheme you will need to state which level and group it falls into. Also it is unclear how it will be managed if someone finds a maternity roost but doesn't hold the correct level, or a species which isn't in the group for which they hold the licence.
- Each level refers to roosts of 'high conservation value'. Clear definition of 'high conservation status' roost criteria based on species, numbers and geographic location would be useful. For example a small day roost of lesser horseshoe bats in Cornwall is likely to be of less significance than a roost in Cheshire at the edge of their westerly range.
- I'd recommend having a wider range of examples in the 'Numbers of roosts' box to help ensure consistency between consultants - it is common area of disagreement.
- I don't think that brown long-eared and common or soprano pipistrelle roost should be in the same group as types of mitigation (roost requirements) and outcomes (how easy it is to make these successful) is very different. Pipistrelle bats are far more adaptable whereas brown long-eared bats do not respond so well to changes.
- A greater breakdown of species groups to allow for the behavioural differences and importance of different roost types even among rare species.
- As mentioned previously, I think some groups should be excluded and dealt with through a case-by-case licensing approach. The vast majority of EPS applications are for small roosts of widespread species and this should be the focus of ER.
- Regional bias needs to be considered, is harder for bat workers in the north to encounter selected species.
- In Table 1 should there be 'mating roosts' in Level 2 column as there doesn't seem to be mating roosts for between 4 and 6 bats. I would prefer to see 'transitional' only rather than including 'occasional.' Occasional roosts by definition would fall under 'day roosts' but we find it can cause confusion. Transitional roosts are described appropriately in the guidance - however i appreciate this is being kept in line with survey guidelines.
- I think some geographic reference should be added as roosts in different locations will be of different conservation significance dependant on their location in the country.
- It is not possible to put every possible scenario into one document, but should be flexible enough to allow for extenuating circumstances.
- Where defining "Species and roost impacts refer to destruction, damage and disturbance" I wonder if roost modification should also be included for completeness?
- Working in the North East of England consultants may have worked on several maternity or hibernation roost sites for Myotis species such as Brandt's, Natterers etc however have little experience of other Group 3 species due to their distribution. Can experience be based on the species that are likely to be affected or is there a blanket requirement that in order to get level 3 recognition that you must have experience of working with ALL bat species in Group 3. This will rule out most consultants who work predominately within the north east of England! There needs to be more clarity on this.
- The maximum number of bats within a roost may be helpful to assign levels. For example a common pipistrelle maternity roost is level 2 however this roost could have 30 bats or 200 bats. Even though this is a common species, the 200 bat roost would be of higher value and might warrant being in Level 3, especially going northwards where there are fewer species.

- It would be helpful to include text provide a little more detail about how the species were divided between Groups 1, 2 and 3, as in some cases it is unclear (to me at least) why some species currently in Group 2 are not in Group 1.
- All information that has been included in this scheme is all relevant. No further recommendations.
- More detail on who can be the licence holder - it was suggested in the webinar that clients of ecological consultants would not be able to hold the licence as they would not be accredited. That cannot work in the real world. The insurance required for large infrastructure schemes simply isn't justifiable to consultant ecologist firms. The number of times a licence is gained for a client and then sites are then sold to someone else would create all sorts of problems for ecologists holding the licence caught in the middle and would lead to huge liability problems. This cannot happen, the client have to have legal responsibility of the licence as per the current system. Document also needs more information on how often re-assessment is required and whether accredited agents would also have to be assessed for Earned Recognition. This information was not known by the presenters at the time of the webinar and has still not been clarified.
- I recognise and really welcome the attempt to classify, simplify and quantify the bat licensing process. I think its super and will help an awful lot. With this in mind would it also be worth trying to assign values to the 'Roosts of High Conservation Significance' - here there is still terminology such as 'very large' or 'significant numbers'. Apologies if this is included elsewhere in the documentation! I can't quite see where a mating site for BLE fits into the table or is this included in Level 3 assuming they are loitering around their sites for much of year? If so I would have thought that this would be at Level 2 with wintering roosts for BLE too?
- Possibly variation in species covered in relation to the ecologists location?
- The definitions for each level are vague The highest level will be acheivable by very few as few hold mitigation licenses for tree bats category should include one species at research level.
- Protection from it being a closed shop controlled by one organisation.
- The table actively discriminates against ecologists who predominantly work in the north of England and clearly benefits those based in the Bristol region or south of England by putting in Tier 3 species that are only distributed in the south of England who has worked on the status lists? maternity roosts of commoner bats some of these aren’t that common up north it’s disappointing that this scheme has started off with so much regional bias and needs to be more inclusive to those of us that don’t live and work in Bristol.
- This isn’t going to work very well across the country as many of our species have a southern distribution. Workers in Scotland will struggle to get work with enough species to qualify.
- The Accreditation Level Criteria for Species and Roost Types are significantly flawed and geographically biased against consultants who work in more northerly counties in England. The whole concept needs rethinking.
- Accreditation should be linked to proven success in mitigation/compensation.
- The webinar referenced only having a low number of Level 3 accreditation. This is likely to make this a very exclusive offering, which could be very unfair for people providing this service. Hopefully it would be used less frequently, but I hope that if you have the experience you could be accredited at this level (and that the number of accredited people won't be limited).
- Definition of small numbers of bats.
- A clause for people like myself who have chosen not to be in an official body due to bad experiences with CIEEM but have worked on bat mitigation for many years. Having to be a member of an organisation you don't want to be in should not be a pre-requisite, you should be judged on your work and licences held previously, not on how much you throw at annual subscriptions!
- Regional flexibility for variable abundance of certain species.
- The idea should be dropped altogether.

- I dont know how to measure this but I think there is always a lack of focus on ensuring the delivery of effective and high quality, appropriate bat mitigation/compensation with many other projects I have seen. More emphasis on creation of good integrated bat features on all new projects rather than only putting up tree boxes as compensation approach I have seen other consultants use for the BMCL system. Ensuring future roost provision is ket to bat populations.
- Previous experience.
- Addition to allow for risk levels to take into account regionality. For example any roost of Leisler's bats in the north west (outside it's usual range) would be regionally significant, and allowance should be made to determine that this should be considered a 'medium' risk (just as an example). I wouldn't think the opposite approach (i.e. lowering the risk based on regionality) would be useful though - 'we have lots of barbastelles round here so its low risk' wouldn't be an acceptable argument!
- Level 3 - currently states "Any site where there are 6 or more species and/or 12 or more roosts present (of species and roost types in any of Level 1, Level 2 and/or Level 3)", but this would exclude sites where less than 6 species, but there may be roosts of high conservation status (e.g. a site within one maternity roost of lesser horseshoe would need Level 3 even though only one species present). Would suggest text amended to state "Any site where there are up to 6 or more species and/or up to 12 or more roosts present" to avoid ambiguity. I am increasingly coming across maternity roosts (of various species) where there are only 'low' numbers of bats present. Whilst challenging, I think it would be good if some 'guidance' was provided on what might constitute 'small' or 'larger' numbers of bats per species, especially in relation to maternity roosts. Not a 'rule' of numbers as this would not be appropriate, but just a well-worded piece of guidance to ensure people consider maternity use, even where low numbers of bats are involved.
- Same as chartered, favourites first, then when open up will be taken advantage of.
- It is unclear how ecologists who have not previously held mitigation licences can gain accreditation. Can examples where I have acted as an accredited agent on a licence be used to demonstrate competence? It is also unclear how younger/new ecologists can gain the sufficient experience. Will the ER accreditation allow use of assistants or accredited agents? If so, how will it be assessed if they meet the required competencies? I currently do not have enough experience to be a named ecologist on a mitigation licence. To be a named ecologist you currently have to have held your survey licence for a minimum of two years, irrespective of what work you have undertaken in those two years, and have two references. Will this change with ER and allow ecologists to be assessed on their competence and experience alone?
- I feel Level 3 Accreditation should be split and a 4th Level created. The 3rd Level could include Group 2 species Satellite, Maternity and Hibernation roosts. All other aspects of the current level 3 shifted to a Level 4.
- The number of bats occupying the roost need to be set. Saying small is not helpful, everyone interprets this differently and a threshold need to be met.
- No, although the table itself doesn't seem totally intuitive. Could this be redesigned to make it more user friendly?
- What about all the EPS Licences, BMCL's and personal Licences that the established ecologist already holds? Surely these will be taken into consideration?
- No I don't think so, it seems pretty comprehensive.
- Migrant species, such as Geoffroy's bat, Pond bat, Savi's and Kuhl pipisrelles?
- Different species have different requirements so, for example, the requirements for a Natterer's maternity roost is very different that the requirements for a barbastelle maternity roost. As such, maybe the table should consider the experience of the person using the licence with a certain species.
- Don’t understand why transitional roost is given the / occasional? Transitional is very season specific and understood from the name but adding occasional i think confuses it.
- Clear statement that ecologists can used their experienced judgement.

- Apologies, quite a few points here as there didn't seem to be text boxes in the previous questions to raise these. It is not clear whether one has to have experience of all the species and roosts types for each Level. For example I doubt there are many people who have had maternity roost mitigation licences for all of the Group 3 species. When I had a site which needed a licence to allow disturbance of a barbastelle maternity roost NE were most surprised as it is so unusual to need such a thing. Also, will there be geographic constraints taken into account. As a predominantly North West based consultant I do not routinely deal with greater and lesser horseshoe mitigation projects, although I can demonstrate knowledge of the species through my work as an accredited agent on a project licence. Likewise I have captured all UK species in harp traps or mist nets but I haven't necessarily held a mitigation licence for them. What will you do about people who have had time off on maternity leave etc? If you need examples of licences from the last 3 years this will disadvantage them. Also, I only tend to be called in for the more complex licences at work so I only hold a few each year but they are for complex sites or rarer species or sites with more significant roosts. The experience to be demonstrated should take into account not just how many licences someone has held but also the complexity of those. I am pleased accredited agents will be allowed as how else will people get the necessary experience. However it was also said it would be "similar to the BMCL accredited agents". This has a far stricter definition of who can be an accredited agent (e.g. needs to have held their Class 2 survey licence for at least 3 years) so would prevent less experienced people getting that experience. When applying do you need to decide which level to go for or will the assessors decide which you are eligible for? If you have to decide in advance, what happens if you don't meet the level applied for, would a lower level be offered instead or would you have to reapply for that lower level?
- The level does not take account of the potential impact on the roost. For example the loss (by building demolition) of a day roost for a low number of bats v the impact from re- re-roofing are very different one is simple and much easier to successfully mitigate than the other.
- Perhaps examples, some people will worry about what 'small numbers' means and some people will push the rules on what 'small numbers' are.
- It's not overly intuitive to use - I'm not sure I fully understand it 100% and I've spent the last 15 mins looking at it - did you try a flow diagram approach?
- It reads well but I don't have enough experience to comment on what else would be needed when a mitigation licence will be required.
- Definition (or reference to definition) of small numbers of bats, larger numbers of bats etc.
- Perhaps some reference to experience levels required to deal with direct impacts on roosts of national + importance.
- Greater emphasis on regional (and perhaps county) context could maybe be worked into the tables (or at least a cautionary note at the top of the document and perhaps a tick box question in the site registration process to make sure this isn't overlooked) that the table doesn't necessarily apply for regionally or nationally important roosts of any species and that the levels apply to finding listed roost types of listed species within their currently known distributions/range (For example if a consultant found a serotine night or feeding roost in NE England, this probably wouldn't be considered as level 1? due to the species being found outside its known distribution). Currently there is a comment at the very end of the document "Regionally and Nationally important roosts of any species" are considered roosts of high conservation value - I think it is key that this is clear and stated at the start as consultants taking the tables at face value and not considering wider context could have negative impacts for bat conservation.
- It’s the groups of bat species i would like re-examining, leading on to tweaking the levels but groups first.
- As suggested by someone in the webinar categorise the number of species/ roosts as 1-3, 4-5 etc One concern is the regional variations. For example, here in Devon, lesser horseshoes seems to turn up in every other project so a consultant would need to go for level 2 in order to make this system worthwhile. While they may be experienced with LHS, they may not be suitably experienced for other group 3 species.

- A sentence stating "it is the responsibility of the registered/accredited consultant to determine what classifies as small numbers, this will be determined by their professional judgement and knowledge of the ecology of individual species" - or something to that effect.
- Assessment of background experience and appropriate professional references.
- For total species/roost numbers, perhaps clarify 'X or less' rather than '.
- Something with a geographical scale. As a Lesser horseshoe day roost for example in Devon is of less value than say one in Cheshire at the limit of its northern distribution.
- Nothing I can think of, the document is comprehensive.
- Ability to register sites for Group 3 (G3) species should still be dependent upon having the necessary experience. For example, in Norfolk, we deal frequently with barbastelle day roosts in barns, but have no experience with horseshoe bats. ER Accreditation for G3 species could therefore work similarly to different vehicle classes on a driving licence, with the ability to add different G3 species based on experience, knowledge and assessment by suitable assessors for those species.
- Consideration of how many licences a person can hold at a time.
- I believe the way the licensing system deals with trees is not working and there really should be an approach to that is different, especially for works that affect large areas. I can see it work for lower levels sites with single trees and common species. So this in my view needs some serious consideration and perhaps be part of the higher level grouping for projects involving impacts to woodlands or greater number of trees? So it is risk focussed.
- Single and mixed species roost.
- The jump from Level 1 to Level 2 is quite high, as someone who lives in the East Midlands who only encounters common species, it would be a difficult jump to achieve Level 2 in order to be accredited to mitigate for maternity roosts of common species.
- 1. Noe Lesser horseshoes are IUCN Least concern https://www.iucnredlist.org/species/19518/21972794, we should consider if smaller maternity roosts still qualify for Level 3? Larger colonies (perhaps over 20 adults) should. 2. Table 2 on Accreditation Levels doc should add on Feeding roosts that they are primarily used for the consumption of food, otherwise the definition is very close to that of night roost (and the two functions can overlap). 3. Table1 'Number of roosts' gives an example of Brownl long eared bat day and feeding roost as being considered "two roosts"; but feeding remains in any BLE roost is a standard identification feature of a roost for this species - in other words - BLE roosts usually have feeding remains so perhaps this is not the best example and BLE's should be considered a single roost even with feeding remains.
- Regional consideration needed when assessing candidates and their experience with different species e.g. only 1 Group 3 species is found in East of England (barbastelle), so realistically consultant working in East of England with experience with that 1 Group 3 species should still be able to meet Level 3 Accreditation criteria if they meet the other skills/level criteria for Level 3 (i.e. unfair to exclude those with say extensive experience of working with barbastelles in Level 3 scenarios but no experience with other Group 3 species (other than barbastelle) because those other species do not occur in the region?). How will this be dealt with fairly when assessing candidates? Could licenses be region-specific for Levels 2 & 3? (regions grouped together by species presence as applicable?).
- To amplify my previous point. I think some measure of the nature of the risk to a roost should be included. Also no measure of numbers of bats is given, only 'high conservation significance' . At what point, be species, does a species move from OK to high significance?
- A set training pathway for those without the required experience should be included. This should encourage less experienced bat workers to become accredited agents and give them well defined training targets. Registered ER consultants should be required to accept these trainees subject to necessary background experience.
- What to do if Level 1 work is being undertaken, which steps into the Level 2 bracket when works actually start, i.e. unexpected finds.
- I couldn't see any tables in previous questions so cannot comment. In 11 years of consultancy i have never found a correlation in cieem or other body membership and quality

of work. Unscrupulous ecologists can gain membership then produce low standards of work just because they tick all the boxes and then get used by dodgy companies to conduct their ecology work. Many more experienced ecologists i have come across maintain much higher standards and have never been a member of a body. I dont think ecologists should be forced to join a body if they have no need or desire to. Each application is reviewed on a case by case basis anyway so I don't see how this will benefit anything? Unless NE are trying to cut corners allowing reports through without checking fully and relying on governing body membership to theoretically ensure standards are high enough. They ought to be, but unless each application is vetted thoroughly it will again allow unscrupulous ecologists to slip through the net.

- Table appears to have a mistake as BLE are a group 1 spp and in level 2 as for satellite, maternity and hibernation but they are in level 3 for mating and swarming as this states all spp out than common or soprano pip. This document doesnt take into account regional variations and i think that noctule could be reevaluated from group 2.
- E.g., rather than saying less than 4, it would be more clear if it said up to 3 species etc. Within the South West often there can be more than 5 species on a site , e.g., spip, cpip, whi, lhs, Nat, ser. Sometimes they may be all low value, e.g., day/night roosts. Therefore, could there be any rationality assessment or discretion on number of species if in low numbers/low value roosts types.
- I beleive the form to be clear and the addition of bat, species and roost numbers is warmly welcomed. Similarly I am please to see it clearly stated that 3 x pipistrelles leaving a roof is 1 x roost. I still have this conversation a lot.
- Particularly in Northern England, I can foresee many ecologist who naturally fall into Level 2 occasionally needing to undertake Level 3 work (i.e. mitigating for impacts on Myotis maternity roosts). I am unclear what the options would be in this case. It seem unreasonable that you would need to resort to finding a Level 3 bat worker (who no doubt would live a long way away) when you have the competence to undertake more simple Level 3 work, perhaps providing additional checks were made.
- Its not clear if the process has taken into account the regional bias i.e. the current BLICL fails many ecologists working in urban areas of the northwest and midlands where BLE and Rhinolphus species roosts are rare, so ecologist such as myself are often constantly working on pipistrelle day roosts, so maybe some consideration to the areas i.e. if you could select where your work locations (County) would be etc.
- Perhaps evidence of species handling during EPS implementation and assurance that the species that can be licensed by surveyors have all be handled and accurately identified by them.
- Regional differences.
- What level a site that doesn't fall within the outlined criteria comes in at - for instance a large site w. >8 common pipistrelle day roosts of individual bats.
- I wonder if all hibernation roosts should go into Level 3. We know so little about the requirements of hibernating bats and mitigation can be extremely complex. We almost know more about mitigation for hibernating LHS than we do for common pipistrelle.
- I think a regional element needs to be added, as it is difficult to open a barn door without a Lesser horseshoe being present and therefore something similar to their inclusion on LICL reg might need to be considered.
- it appears to cover a number of scenarios. will one level be more closely related / transferable to the BMCL criteria? Appreciate the review process on applying is different.
- I think that for NSIPs something should be added into level 2 for small numbers of group 1 species (or something along those lines). I work on NSIPs and generally I have had lower value roosts on these sites (small numbers of common and soprano pipistrelles and BLE). I agree that this should be above level 1 due to the complex nature of these projects and thinking about suitable mitigation at a landscape level and not focussing purely on the roost, but I think adding this into level 2 would avoid many people feeling they need to achieve level

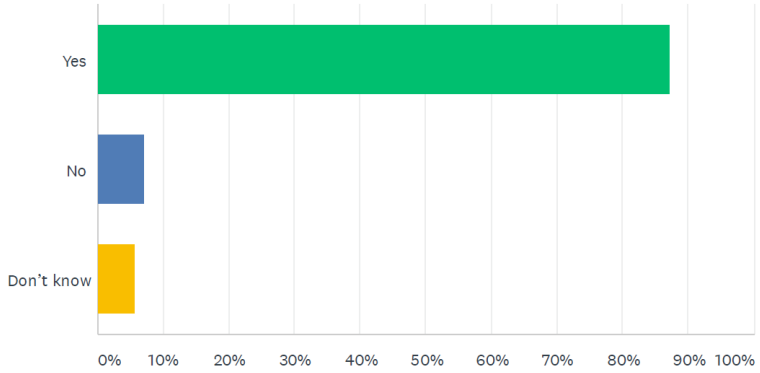
3 (which the probably don't have the experience to get to) to be able to provide advice on large projects.

- The high conservation status should also reflect non mat or hibernation roosts which could be considered of high value due to the rarity of bats in general in the particular environment for example the city of London.
- Experience using advanced survey and capture techniques e.g. use of harp traps, acoustic lures, mist nets.

Appendix 4. Responses to Questions 27-29 Competency Profiles for Bat Mitigation

Question 27. Look at the Competency Profiles for Bat Mitigation document. Overall, are the mix of competencies (left hand column) generally right?

Answered: 228 Skipped: 24



ANSWER CHOICES	RESPONSES	
Yes	87.28%	199
No	7.02%	16
Don't know	5.70%	13
TOTAL		228

Question 28. Are there any competencies present that are, in your opinion, not required/relevant (tick all that apply)? Please explain why.

ANSWER CHOICES	RESPONSES	
I think they're all required and relevant	73.11%	155
Tech 1: Habitat/species survey design, planning and fieldwork	0.94%	2
Tech 2: Species identification, handling, analysis and evaluation	0.94%	2
Tech 3: Habitat identification and survey	1.42%	3
Tech 4: Physical environment survey	3.30%	7
Tech 5: Providing advice on habitat/species management and/or habitat creation	0.47%	1
Tech 6: Design and preparation of habitat/species management/mitigation/enhancement plans and projects	0.47%	1
Tech 7: Implementation of habitat and/or species management plans or projects	0.94%	2
Tech 8: Risk management during project implementation	1.42%	3
Tech 9: Ecological assessment, including preliminary ecological appraisal, preliminary roost assessment and ecological impact assessment	0.47%	1
Tech 10: Advising on requirements of policy, legislation and standards	0.94%	2
Tech 11: Interpretation and evidence-based reporting	0.94%	2
Transf 1: Professional conduct	2.36%	5
Transf 2: Effective communication, negotiation and influencing	5.66%	12
Transf 3: Inter-disciplinary collaboration	7.55%	16
Transf 4: Client and customer care	7.55%	16
Transf 5: Managing and evaluating projects	5.66%	12
Transf 6: Data and document management	7.08%	15
Transf 7: Health and safety	4.72%	10
Please explain your response	38.21%	81
Total Respondents: 212		

81 additional comments were received and are provided in full below.

This raw data has not been amended in any way and in some cases represents a misunderstanding or misconception on the part of the respondent – the comments should be read with this in mind.

- The physical environment is not relevant to licensing as the presence f the roost identifies the suitability of the environment, it is not a license issue but a BNG or site survey issue. Health and Safety is an industry-wide requirement, bat worker or not, and therefore belongs as a generic requirement and not relevant to a license.
- Data and document management and health and safety are not relevant to bat licensing. more towards general ecological consultancy practice.
- There are 18 competencies (which seems a lot) and from the only detailed example provided, each competency is divided into several sub-categories (9 in the example). Extrapolating this would make about 162 indicator activities to comply with for a Level 2 or 3 Accreditation (a large and rather daunting number). Some simplification may be required. For example, I think Tech 3 and 4 could be combined. I think Transf 2 and 4 could be combined. I'm not sure that Transf 3, 5 and 6 are necessarily relevant in the way they appear to be set out to a persons competency for bat mitigation in terms of this scheme. Good skills to have, but perhaps they should not be mandatory. I can see that perhaps less sub-categories or indicator activities may be helpful or maybe not all sub-categories should be mandatory. From the example of

Tech 6 provided I can see there may be a danger of a bias towards consultants in multi-disciplinaries.

- Only standard survey equipment / techniques mentioned - complex / higher risk sites likely to require 'non-standard' techniques such as thermal imaging Tech4 needs clarification - how this differs from Tech3.
- I think it is important that all aspects are covered under the licence.
- Although all may be relevant; Tech 3: Habitat identification survey, Tech 4: Physical environment survey Tech 8: Risk management may not be applicable, achievable or relevant for single dwelling schemes with curtilages confined to the residential site boundary itself. In these cases, which could be the majority of a consultants work, the long list of required competencies designed to demonstrate a skill level may in fact represent a barrier to entry.
- It seems incredibly laborious on first reading but the profile does make transparent the day-to-day processes that are involved (or should be involved) in bat mitigation licensing.
- The set up is very biased towards the CIEEM competency approach & is perhaps overly complex.
- I am not sure that all of the Transf skills are as necessary for level 1 when these are usually smaller simpler projects, and there are a number of ecologists who do not really have all of these!
- I don't necessarily think that all of these skills result in good outcomes for bats or are needed to successfully implement a bat mitigation licence. A lot of consultants will score poorly on some skills such as client and customer care or reporting but may be very qualified and practical at delivering bat mitigation. A licence allows a derogation to the law. It is not a comment on a practitioner's consultancy skills. I would suggest that it needs to be very carefully considered what is being judged here to avoid creating a complex series of hoops for people to jump through which do not necessarily deliver good outcomes for bats. This approach will benefit larger consultancies and disbenefit freelancers like me who mostly work with householders (although I can assure you that I am very professional and my reports are up to scratch!).
- However I feel that certain ones should be compulsory, with others optional with a ranking system. If you achieve above a certain score you have sufficient knowledge. I do not currently handle bats, but it would be nice to be able to work under this scheme, if that element of works can be covered by a person that can handle, as is the case for EPS.
- Tech 3 and 4 these do apply but could they not be merged?
- All relevant.
- Having said that, I have concerns that the wording in the competency table discusses being 'able' to handle all species. This has the potential to be either too restrictive or not restrictive enough (i.e. technically anyone is 'able' to handle a bat with limited training and experience; many consultants have not had the privilege of handling every species in the UK, simply as a result of geographical variation in species distribution).
- Wording is a little vague in setting standards.
- Transf 2-7 are not relevant to bat licence applications. This feels like a box-ticking exercise and won't actually prove the person is competent to hold a licence.
- Tech 4 should be covered by Tech 3 Transf 4 and Transf 7 are not directly related to bat mitigation licensing.
- Trans 4 - I dont feel that this should strictly be assessed as part of the accreditation scheme. Depending on the nature of your organisation, highly experienced bat ecologists may often not work directly with the client.
- I can understand the desire to include the transferable skills but part of me does wonder if, as this is a largely technical process, it should really focus on the technical elements. There could be a risk of overcomplicating it which would be a shame. However, I do appreciate that the transferable skills are important and have been recognised as an important part of the process as far back at the Bat Workers Manual. A very minor comment. For the technical competencies would it be possible to introduce these in the tables in chronological order as

they would be applied in the process? I would have thought that Tech9 to Tech11 should be higher up in the table.

- I think it is important to cover all the aspects noted to ensure the best possible outcome for bats.
- Transf 4-6 - I don't have strong reasons for including these three fields. To some extent they are reasonable although a little peripheral perhaps (depending how they are defined). However, taken as a package I think that there are too many skills included in the above list and presumably this will translate to a high burden of time/procedures for already overburdened ecologists.
- There is a debate to be had about what constitutes 'standard' survey techniques... e.g. does Tech 1 include IR and/or thermal? Where is line drawn? Should CM be more specific? Same for "Accurate identification of bat species (e.g. by sight, in the hand, analysis of DNA and/or acoustic recordings as appropriate for accuracy" - where are lines drawn? I would say anything that relies on teeth in the hand (wh/Br) is pretty advanced/difficult... even for acknowledged experts. Not clear if people need to evidence every competence... might be hard for those on smaller projects.
- Transf 1-7 - These skills should not be part of such bat licences and are skewed towards big companies anyway. Only the technical competencies should be looked at. I feel strongly about this.
- I can see most limited experience consultants (e.g. <5years) will not be able be fulfill a lot of the above and a lot with medium experience (e.g. 5-10 years) wont be able to, I can think of several consulants with >20years experience that wont fulfull full list above. Tech 1 does not cover sufficient content maybe a couple more categories covering more in depth knowledge it suggests just being able to do basic emergence surveys is sufficient, other categories required: Knowledge of underground sites - hibernation, breeding (limited), mating, foraging season stop over sites Mitigation, transition sites. movement routes, flight distances, height and behavior Detailed habitat use studies e.g. radio tracking, long term static monitoring.
- Ridiculous to have it so broken down, only works with a certain brain type. I work in a holistic way and could not be so nit picky about separating different sentences into such discrete categories. This will be testing our ability to fill in forms not to work with bats.
- I would make a general comment that some of the competencies' that are noted in column 1 are noted in Column 2 to only be needed for Level 1 situations when in act the consultant needs to be suitably experienced to be able to respond to higher level situations. e.g. Tech 8 states that the consultant needs to be able to "Respond appropriately to unexpected events (e.g. discovery of additional bat species, significantly more bats) during the construction phase", and be "Able to do so"(only) "for Level 1 situations." In reality, a consultant needs to know what to do immediately if an "unexpected event" means the situation becomes a higher Level situation. e.g. works start on a building previously only identified by survey as a day roost but a satellite or maternity roost is found present when roof strip starts in June (or hibernating bats found during works being undertaken in winter).
- Earned recognition should be a threshold of competence and responsibility that provides assurances that the FCS tests will not be offended by allowing the licensee to work under a lower level of regulation. Client care and facilitating client objectives has next to nothing to do with that, and to the extent it is relevant at all, is met by other frameworks such as the CIEEM code of conduct.
- Transf 2-6 - As drafted, these appear to be more 'good business conduct' rather than specifically within the NE remit.
- They all seem reasonable, but it is not clear how many of these competencies you will need to be able to prove your level of, is it all of them or will be applicant select a certain number that they can achieve, like for CIEEM membership? If all consultants are expected to evidence accomplishment in all these areas then that will be a lot of paperwork and/or a lot to request of referees.
- some in the field of ecological consultancy lack any empathy or humanism. They need work on their interpersonal skills. Not one member of the public WANTS to have to pay for a bat

survey for an extension to a house for a sick family member or an elderly relative. Skill levels should also recognise those that have Climbing survey certificates - i dont climb...i'm too heavy and old....i use other technology (Thermal and night vision equipment) or extra activity (emergence etc).surveys to compensate.

- I do not believe that there should be a need to be a member of an institute in order for a worker to acquire a licence. This risks becoming a clique with those that question the need for certain guidance or where exhibiting professional judgment could be squeezed out. The panel to assess competencies may well be less qualified than the applicant.
- All of the competencies relate to each level of Earned Recognition. However it is not clear why Level 3 requires detailed knowledge etc of rare species in order to earn recognition to deal with maternity roosts for common species - or have I missed something ?
- While client and customer care is important, these are often at odds with QUOTE 'facilitating appropriate delivery of the clients' objectives'. It is not the consultants job to 'facilitate' their objectives, it is the consultant's responsibility to ensure that works are carried out in accordance with current guidelines and law, whether that inconveniences clients or not. Obviously best solutions are sought, but this suggests that rules should be bent to accommodate clients which is clearly wrong. Maybe it is a wording issue but that is how it came across to me.
- I couldn't do a proper job if I didn't engage in all of the competencies listed.
- As previous answers. I think it is excessively bureaucratic and the last few questions have proved me to be right.
- Effective site work skills to ensure precise/correct delivery of mitigation and bespoke bat compensatory features. This is the most common cause of compensation failure. Its key to be able to work with roofers and build teams on the ground to both soft strip the buildings and then to built back the new roost. All the surveys and reporting are worthless if we don't get the last stage of implementation done correctly. Its one thing ticking things off on a management plan but have they been done correctly so that bats will actually use them? Technical aspects of integrating bat features with modern roof ventilation systems are often overlooked. Guidance on the use of BRMs and the ways to mitigate their use on sites when bitumen felt is not a practical/viable solution needs to be researched and developed. This is a key area of conflict with clients and consultants should understand how to deal with these issues effectively in a way that still benefits bats.
- I think all are relevant.
- All of the above competencies are relevant and necessary for ecological consultants to ensure that outcomes for both bats and clients are favourable. A broad range of skills are necessary to deliver those outcomes from initial project involvement , through to project completion and beyond.
- Tech 8 and Transf 3 - These depend at what stage in the project you are employed at.
- I agree that these are all relevant. I considered whether customer care was relevant, but on balance decided that yes, it is. If a consultant is going to manage a licence then a good relationship with the client is essential.
- There are so many competancies that cover what we do every day when meeting clients and carrying out surveys, that it does not give enough leeway for those of us who work mainly with householders and very small developments, To attain level 3 when we only cover smaller sites will be difficult to prove that we can cover what you might call high risk or complex, when actually we are very competant at being able to do what we do.
- They are all an important part of being a professional ecologist. However, I do question whether they are all relevant to being able to assess bat mitigation proficiently and ensure the best outcome for bats, which is the bottom line here.
- I think that if you are a decent and trustworthy ecologist that you should have experience at all of the above.
- I think all required but tech 5&7 i would worry that its easy to be done in a way that is too generalist. There should be approved sources of info to use to help write man plans for different species.

- I almost ticked all of the transferable skills because I do not believe this is something that should bet tested through licensing. These are commercial decisions for a client to make by commissioning work or not. There are lots of amazing bat workers who re not the best at communicating for example.
- I think this whole system is terrible, it is geared towards middle class academics. Although I am fairly academic myself, I have been raised in a working class environment and therefore the language used in the CIEEM competency framework is completely alien to me. Myself and a great number of very good bat workers will be excluded from this process on the basis that they are not able to communicate in the hoity toity language of CIEEM. In fact we communicate much better with developers as we are down to earth and don't lord it over them, as I have seen a great many CIEEM members do. This process designed by CIEEM and to be run and managed by CIEEM, is designed to test a person's ability to fill in forms, not their ability to work with bats. I attended the webinar and a CIEEM delegate said that experience was not necessary as 'experience did not equal competence' and whilst this might be true in a very small number of cases, it is certainly a good rule of thumb that experience very much does equal competence, otherwise we may as well leave the brick layers to design the bat mitigation! Practical experience is not valued by CIEEM at all as evidenced by the 'competency framework' for membership application, commonly known in the industry as 'the incompetency framework'.
- I am comfortable with all of the above but I am deeply concerned that Transf1-7 require membership of a professional body - this is for Application - no one should be excluded from applying. If they don't adhere to Rules once they've been registered then there has to be recourse - but you absolutely should not be excluding people from Applying in this first place - that is closed shop . It is up to you to devise a mechanism by which people who have gained entry to the scheme can demonstrate their ongoing compliance - but under no circumstances should any scheme that is part of legal compliance with Legislation have a hurdle to entry - if you'd like me to make an analogy, it's like you deciding people can no longer represent themselves in a court of law and only solicitors can. You simply must not bar entry.
- I feel all competencies listed are required.
- I don't know of any ecologist who has analysed DNA themselves.
- I think they are all relevant to the licensing process, however, there is considerable overlap for some competencies between the skills required for a licence holder and those required for any competent ecologist. In other words, it might not be necessary to test the competencies (e.g. for survey methods and ecological assessment) for those who have already demonstrated their competence through, for example, full membership of CIEEM. On the other hand, these are likely to be very simple to demonstrate for MCIEEMs working in the development sector.
- All the competencies identified are relevant and I do not feel any should be removed. I agree that the transferable skills are relevant to all levels.
- These competencies appear to cover the breadth of skills an ecologist would require to adequately hold and enact the work covered by a licence.
- Transf 3-6 - Specific staff within organisation to do this or not that relevant to bat migitation.
- I think all competences are relevant and can be applied to different scenarios.
- I think all re required but this scheme is making it basically impossible for someone without much experience to gain accreditation. How do you gain these competencies without experience. with covid, bat handling isn't allowed, there's no entry level e.g. a class 1 licence which allows someone without handling experience to work with bats.
- I think that whilst the CIEEM competency framework is a good reference point, the competencies shouldn't be so heavily tied-in to CIEEM. Have other relevant professional bodies been consulted for their input? Whilst CIEEM's input should be rightly recognised, I fear that this approach may alienate other non-CIEEM ecologists (MRSB members for example) from applying.
- I have not selected these but I believe that the trasferable skills in this instance are essentail and should be assumed. An ecologist for example who can't communicate or doesn't fill out

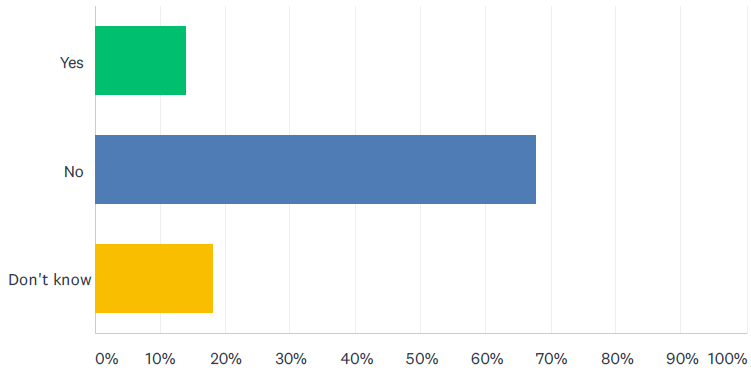
H&S documentation for example should not be on a site in the first place. I think that as the skill are related to bat licneceing specifically this is what the guidance shou;d focus on. I see these skills as consusing the main focus of what is being achieved.

- These are routine requirements. Most of them required, to some extent, in every project, whether licensable work or not.
- I agree with the competencies.
- The competencies should relate to licence application and delivery only. Given the terrible state of Natural England's EPS forms, it wouldnt be fair for them to cast judgement on a consultants competencies in document management.
- I believe they are all relevant to a degree, however there is a principle issue here about what makes a good professional and what makes a good licence holder. Client and customer care often conflicts with Licence requirements (in the eye of the client!) Health and safety can also conflict and all should be abiding for sound business/professional reasons but should not be required to accredit someone for using a licence.
- They are all relevant to bat mitigation although the competency descriptions are very general ie Tech8 bat care otherwise interesting.
- How would Natural England be able to determine an ecologists Professional Conduct etc. A lot of the technical competencies are covered by your class licence. For example if you failed the competency of 'species identification' during the assessment, would your Class 2 bat licence be revoked? I also feel that it is very restrictive in order to achieve level 2 you must have worked with ALL species of bats.
- Not sure that some of the Transferable Skills are strictly relevant for effective and high quality bat mitigation licensing outcomes - general good practice, but do these really need to be assessed for someone to be ER Accredited for bat mitigation licensing purposes? (Assessed elsewhere e.g. through Professional Membership). May start to become too onerous/too many skills to be assessed/considered. Better to keep this focussed on the Technical Skills that will directly affect outcomes for bats? Also many consultancies would have non-technical office-based staff that would deal with many of the transferable skills elements (project management, dealing with clients, communication, health & safety etc) with specialists/ecologists dealing with the more technical components (bat knowledge & expertise).
- AT some point in understanding a roost you may need to catch a bat, to confirm species (BLE vs GLE for instance) or, for instance where myotis are leaving from a ridge (and are crevice roosting) and it was just not possible to confirm from acoustic data nor could we collect droppings). One may involve a hand net, the other may involve a triple high mist net system. while we might not expect everyone to have triple high experience everyone should have some basic catching experience. While one might expect that to be covered by having a survey licence, so should handling so, if one aspect is included in the criteria so shoud the other.
- There may be situations where, for instance, advanced survey techniques are required (catching animals to confirm species using mist nets, for instance, when the roost exit is high up on building, so might require a triple high system). I appreciate that might be a limited number of cases, but how will the needs for those skills be brought in!or is it acceptable to subcontract them?
- These are all clearly required for successful delivery of a mitigation licence.
- I can't see anything, sorry
- There is quite a long list though.
- There is quite a bit of overlap between groups of technical competencies (i.e. 1-4, 5-7, 9-11). And they are not entirely separate entities, it would be very difficult to offer tech 7 without already having a very good grounding in Tech 6.
- I think they are all relevant however some are more important than others.
- I feel Tech 4 may be difficult to evidence in direct relation to bats.

- Tech 7 - Not that this shouldn't be in there, I feel that there should be a separate Tech purely for Monitoring . It has been mentioned that there will be greater focus on compliance and monitoring but that doesn't seem to be emphasised in the competencies.
- I think Tech 3 and 4 over lap somewhat. They could be made more distinct or combined. Candidates may have more experience in some areas than others. Could it be more like CIEEM i.e. where there are core competencies that you must have and then secondary competencies which you must meet a certain number of to gain accreditation? It may become difficult to gain experience in certain areas without accreditation, meaning you cannot progress.
- Each and every competency provided already is part of the day to day consultancy role when review the impacts that will occur on site during proposed works to bats. All the competencies stated should play a role in the thought process whilst building the evidence base to support decisions.
- Advising on requirements of policy legislation and standards. There is too much over lap here of standards.. what standards this applies to.
- In my experience, ecologists in the private consultancy sector are not sufficiently trained in risk management. Project management skills tend to be picked up along the way; there are no opportunities for ecologists to attend specific ecology project/risk training. I'm not sure how competent/accomplished risk management could be evidenced. Most ecologists have come from BSc backgrounds with little construction/project/risk type management experience.
- Previously there has been less emphasis on the various elements of licensing and this looks to add better, consultancy/mitigation focus which will give businesses, clients and stakeholders greater certainty of the quality of survey and mitigation work due to the criteria and rigorous assessment measures.
- The breadth of competence required demonstrates experience and integrity and would hopefully reduce abuse of the system.
- As a Chartered and Full Member of CIEEM, you have to already demonstrate these competencies as part of the admission process.

Question 29. Are there any competencies that are, in your opinion, missing? Please explain why and how they would apply to each accreditation level (Level 1, Level 2, Level 3).

Answered: 221 Skipped: 31



ANSWER CHOICES	RESPONSES	
Yes	14.03%	31
No	67.87%	150
Don't know	18.10%	40
TOTAL		221

42 comments were received in response to this question and are provided in full below.

This raw data has not been amended in any way and in some cases represents a misunderstanding or misconception on the part of the respondent – the comments should be read with this in mind.

- The ability to identify bats from acoustic devices is a basic requirement and essential, as essential as hand or visible ID. The ability to identify species from recorded sonograms is likewise essential, or not as critical as the first issue.
- I do note that for Tech 1 and 2 there are some competency requirements that will exclude the vast majority of ecologists. these require ID, knowledge and behaviour on all species, yes some species e.g. alcathoe are data deficient, and very very few people know about the requirements, and can identify these species.
- Planning activity surveys, remote surveys, managing survey team, training/ensuring team competent. Level 1, knowing how to cover building competently for activity survey, what equipment to use, where to place IR cameras, how to employ remote detectors. Ensuring all team are motivated and competent Level 2, as above, plus thermal imaging, knowledge of how to target surveys to gain exact information required on more complex site, training surveyors, if needed level 3, undertaking more invasive techniques, knowing when it is appropriate to catch/radio tag bats.
- The ability to undertake destructive searches/soft demolition is a competence that is often overlooked or not fully appreciated by the ecologist. For our firm we are often on the roof, on top of the scaffold or in the cage looking and checking for bats and directing the demolition contractors/builders accordingly. However, I have seen on many occasions other firms with ecologists stood on the ground and only being needed should a bat be found. Experience has told me that it is not always easy to find bats during roofing/soft demolition work and often you need to be checking with torches, endoscopes etc. as the work progresses. I appreciate this is sometimes unavoidable for H&S reasons but I think that the ecologist should be at ground level as a last resort and priority should be to be on the roof directing and assisting the works. We do include in-house training/supervision for trainees/accredited agents but it could be a competency in its own right. This could be included with supervision of tree felling as this often takes the same level of supervision. With regard to level I would expect to see this in any licence application where the mitigation measure includes 'destructive search' as it does now for EPS licences.
- Not necessarily missing, but perhaps clarified under Tech1, I think it is important to ensure that an understanding of advanced survey techniques and where they should be recommended to gather appropriate baseline information is included, especially (but not exclusively) with regards to NSIP projects.
- F1: Stakeholder engagement could be included for Level 3 where there are potential impacts to roosts of high conservation significance, such as those functionally linked to SSSI or SAC for bats.
- I'm not sure how easy it would be to incorporate but would it be sensible to have a separate competency relating to supervision of others undertaking the work? I can see that supervision is included in Tech7 but wonder if that might be worthwhile covering in more detail. For example would it be worth having supervision as just a Level 2 and Level 3 activity?
- Insufficient knowledge of the species (see 24) e.g. behaviour studies which is key in designing mitigation, The current variable standard of bat training means a lot of key basic knowledge is missing in some people.
- Far too many categories already.
- This question appears to be asking respondents to critique the BCT Professional Training Standards for Professional Ecologists Working with Bats document. Surely that has already been out to consultation? If not then this isn't the forum for that consultation.
- Proven success in delivering effective compensation (e.g. proven use of artificial roosts etc).
- Having experience being on site and overseeing the implementation of licences seems to have been overlooked. Surveying, understanding guidelines and preparing reports/licences

seem well covered, but having on site experience on how this actually works in practice is invaluable. Dealing with the unexpected and coming up with pragmatic suggestions for contractors is a real skill. You are often faced with situations you don't expect (perhaps more so on the Level 3 sites) and having experience of having worked with a number of contractors in different situations. Natural England staff are very well trained, but generally lack much practical experience and I find that recognising consultants practical experience is often overlooked.

- Extra skill levels , working in confined spaces, tree climbing for trees that appear to have exploitable features etc.
- Amount of time spent as a licenced bat worker. I have worked in large corporations with a regional trainer in the office where staff have been rushed through licences so the employer can take on more work. Simply holding a bat licence should not imply competence, time held and proven work (assessed by a third party if necessary) should be a benchmark.
- Previous experience can allow better collaborative results in some cases.
- It could become an issue for some who work in the north of England who have held mitigation licences for Daubentons maternity sites, natterers hiberantion etc but never work with horseshoes, bechstein etc to achieve Level 3, which could then discount them from reaching Level 3 accreditation.
- Experience, how to implement mitigation and how to soft strip etc most people who hold licences have no experience in this and are therefore not practical as to how to achieve this.
- It is too complicated already.
- Problem-solving ability. Capacity to recognize and anticipate problems and to formulate solutions. Most relevant to complex situations and higher accreditation levels.
- Mitigation Licences previously held.
- Some reference to CPD for levels 2 and 3 in particular such as awareness of and ability to evaluate and apply findings from key research papers relevant to impacts on sites (lighting, wind turbines, hibernal ecology, winter foraging, rare species ecology, CSZs etc) - the detail in levels 2 & 3 is difficult to comment on as it is very broad brush'most complex/high risk' should be better defined.
- Not necessarily a competency and apologies if I have missed this but I can't see anywhere in the document about whether you must hold a NE level 2 survey licence in order to become accredited? In theory, based on the competencies someone who has never held a personal survey licence (but is accredited to someone else's personal survey licence) could potentially become accredited under this scheme?
- Supervision of mitigation installation. I believe this provides evidence of a level of understanding of the mitigation being proposed and ability to communicate/influence contractors on site.
- I'm not sure how you would word this but in some circumstacnes a level of improvisation may be required, quick thinking etc. It could be you find more bats during the roof strip that you expected or the roof is lined with aesbestos which was not found during surveys. The ability to ensure the safety and integrity of the bat roost whiclst modifications to licneces etc is saught is essential. It probably falls outside of risk management and is more to do with dealining with unforseen circumstances. It happends rarely but it does happen, especially on older buildings.
- In Tech2, bat call analysis skills are only incidental. The reliance of auto-ID is widespread, for reasons of time-saving and is misidentifying bats. It is therefore possible, that bats are being missed or over recorded. As sound analysis forms a major part of all bat surveying, especially where roosts cannot be reached for some reason, perhaps it would be good to give this activity its own competency level. An understanding of remote recording fallibility is also very important in larger scale projects.
- I think bat ecology and bat behaviour should be separated out from survey design and planning field work as these are very separate things - for example inter species composition between lesser horseshoe and greater horseshoes Natural England Polices 1-4 - should be a tech competency.

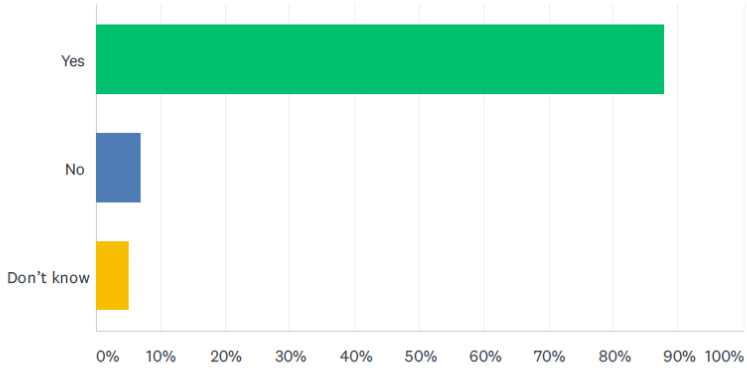
- I think when looking at competencies, the focus needs to be upon people undertaking bat surveys without the relevant experience, the framework needs to look at ecologists at this level rather than at the licensing process.
- Mitigation effectiveness - collecting data in a way that can be directly and clearly compared before and after any action.
- The competencies are quite high level in some places, especially around mitigation plans and implementation. I've accredited 10s of ecologists this year under a number of landscape level licences and I was slightly concerned about how little experience alot of 'experienced' licensed holder had in some of the practical elements of delivering licences on the ground, especially in relation to exclusions etc. So I think that the high level competence of implementing mitigation could delve deeper into those aspects that are relevant to the main licensable activities such as soft demolition, soft felling, exclusions, even if they were wrapped up into a practical competency of the implementing the main licensable methods.
- Points cover all areas in general. Although covered by Tech 11 and Transf 2 Would strongly encourage open publication of results (positive / or negative in equal priority) mitigation - ie roost, Conservation Evidence - generally consider this to be a loss in learning from last 20 years of licensing.
- I presume many of us are also NE/BCT volunteer bat roost visitors? Perhaps not? Is this a competency? Having been helping with this since first getting a survey licence. The changing relationship / boundaries between the two systems has always been interesting. With extremes such as advising on signifiant impacts very high conservation significant roosts based on single brief visits vs 3/4 surveys, long planning delays due to survey season constraints, detailed reports, further discussion with LPAs, licencing and supervision for single non breeding bats. I am very much in support of both.
- Not so much a competency as a progression point, but at present there is no clear or apparent way in which an individual would progress from Level 1 to Level 2 to Level 3. It was mentioned in the webinar that there would be a yearly assessment / application requirement and I wonder if this would be an opportunity to determine an applicant gained CPD/Project experience over the previous 12 months. The training of junior members of the team is already more difficult as a result of the low impact registrations process (reduced EPSML applications on less complex projects and no accredited agent opportunity). It is also problematic for those who have not already held EPSML for certain scenarios / species to become sufficiently qualified to become a named ecologist, a topic which makes it more difficult than ever to achieve the requirements to become a registered consultant. Should the ER system become the normal application route, it may be that a non-Level 3 ecologist has overseen the project but been required to call on a Level 3 consultant to achieve the licence requirements. from what I have seen so far, there is no mechanism in place to enable someone to demonstrate their increased competencies, thus no mechanism for an individual to advance their skill set.
- Will your previous licence history both mitigation and survey licences be taken into account.
- As mentioned above, putting more emphasis on monitoring and remediation will hopefully give better conservation outcomes.
- Perhaps at higher levels (level 3) those competencies such as "Academic teaching and professional training".
- Tech - Implementation of mitigation measures such as soft strip or soft demo - most supervision work of these activities is done from an individual standing at best on a scaffold and at worst on the ground. Very few consultants can take part in the strip or demo itself (through lack of appropriate training including knowing how buildings are constructed and how to safely manouvre on roof tops) and this is often where the most bats are found (or not as the case may be!).
- I personally think that advanced surveys demonstrate a level of competence that should be acknowledged here for access to Level 2/3 accreditation (but not exclude people if they don't have these)?

- Adaptability is an important transferable skill. Projects change regularly, such as time scales, and its important to be able to adapt in a safe and manageable way without comprising standards.

Appendix 5. Responses to Questions 30-32 Sample Row from the full Competency Framework

Question 30. Look at the Sample Row from the full Competency Framework – Design and Preparation of management, mitigation and enhancement plans and projects. Do you think the competencies required for Level 1 Accreditation are about right for an ecologist working on common species and/or roost types of lower conservation significance?

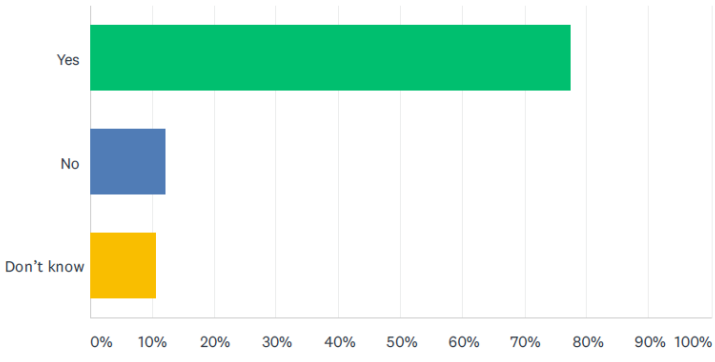
Answered: 216 Skipped: 36



ANSWER CHOICES	RESPONSES	
Yes	87.96%	190
No	6.94%	15
Don't know	5.09%	11
TOTAL		216

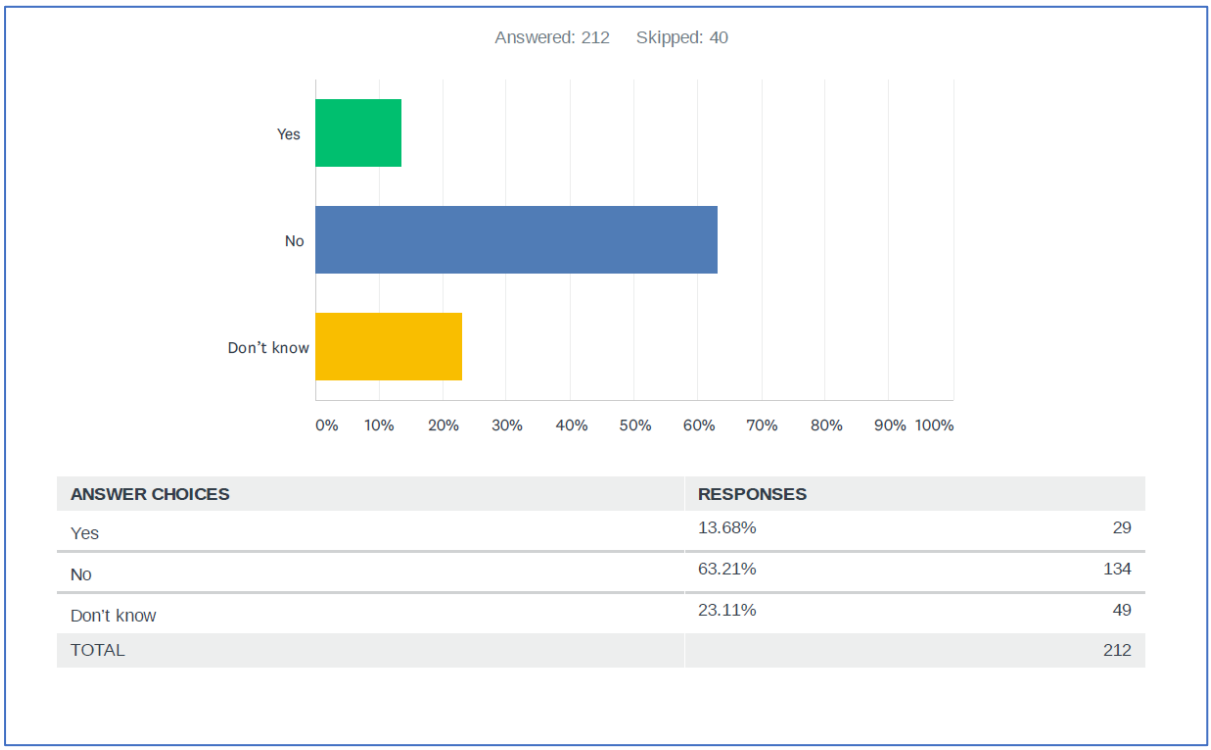
Question 31. Do you think the competencies required for Levels 2 & 3 Accreditation are about right for an ecologist working on less common species and more complex sites?

Answered: 216 Skipped: 36



ANSWER CHOICES	RESPONSES	
Yes	77.31%	167
No	12.04%	26
Don't know	10.65%	23
TOTAL		216

Question 32. Is there anything missing from this competency?



ANSWER CHOICES	RESPONSES	
Yes	13.68%	29
No	63.21%	134
Don't know	23.11%	49
TOTAL		212

43 comments were received and are provided in full below.

This raw data has not been amended in any way and in some cases represents a misunderstanding or misconception on the part of the respondent – the comments should be read with this in mind.

- Specifics for each level.
- In general, perhaps a little too demanding with a requirement to provide too many examples. For Level 2 accreditation, for example, I'm not sure that it is necessary to provide project examples of large-scale or complex development scenarios, when Level 2 is due to cover day roosts of small numbers of relatively common species. The mention of large-scale or complex development scenarios could potentially favour consultants from multi-disciplinaries. Also, you don't necessarily need to have worked on a large-scale or complex development scenario to have experience and be competent with regard to this competency and bat mitigation. For example, most instances where a Group 1 species maternity roost is concerned will be neither large-scale or particularly complex.
- I think its pretty much covered everything.
- All mating sites apart from common and soprano pipistrelle are level 3 ER. On this basis a single male noctule roost in a woodpecker hole which may attract 3 to 4 female bats requires a higher level of accreditation than a large maternity roost of other species? This appears disproportionate.
- I don't know what BCT Professional Training Standards ref Unit 12 is but it sounds like it is requiring everyone to go on specific training courses?
- This does seem to be pretty biased around someone being able to source evidence, but you also need to interpret that evidence, I can source papers on research in Europe on a species in the UK, but that doesn't mean that it is correct for here, it needs to be interpreted and assessed for application in the UK, or even specific areas of the UK. Would not a higher competency be required for level three than level two?
- As in previous comments, the groupings are so broad that there is a high risk that the competency framework will become a box-ticking exercise of low relevance. For example, an

ecologist could demonstrate that they are competent to oversee a project for mitigation of loss of a serotine maternity roost and then be granted a Earned Recognition accreditation which would enable them to oversee the loss of a GHB hibernation roost. More categories need to be introduced or some types of roost (e.g. larger roosts and rarer species) still dealt with on a case-by-case basis.

- This seems to be worded quite loosely for more complex schemes involving Annex 2. It doesn't really work as a competency without having the ability to discuss the scheme with architects, planners etc. so having good transferable skills such as communication, problem solving is very important. Would need to think about this more once guidance is drafted.
- Maybe helpful to make reference to monitoring and implementation of remedial measures.
- I think it may be very difficult for ecologists working in the north of England or in Scotland to gain sufficient experience in relation to a wide enough range of species. If formal courses are provided this will help ecologists to gain the necessary experience, but without this, the system could be biased towards those already undertaking bat work, and making it very difficult for new entrants to the profession to gain relevant experience.
- I don't know where else to write this, but it seems utterly over the top to expect people who are applying for Level 1 accreditation to be able to identify all species of bats in the hand (Tech 2). How do you propose to deal with people who work in areas of the country where species like horseshoes aren't present to get any level of accreditation? Why can this not be a staged approach, whereby Level 1 people can apply for accreditation for only those species covered by Group 1 and 2 species? This allows you to stage your learning. I would only be looking at having a level 1 accreditation. Also, how do you propose to ensure people have handled the recently discovered species such as Alcathoe bat, or the rarely found bats such as grey long eared? It seems that the wording of this competency needs some work!
- I'm not sure how common disturbance licences are. Some people may only have worked on sites where roosts are destroyed and so won't have experience with disturbance. I can't think of a time I have done this at work but I have done this as a VBRV, mainly with churches but they would not count as a development.
- Concerned that individuals will find it hard to evidence some of these (esp "You can recognise when a habitat management / mitigation / compensation plan is likely to be ineffective and describe what measures could be taken to correct the situation. " and how an assessor will judge the evidence supplied in several of these cases.
- Far more detail with species, type of sites, seasonal use.
- To much bias to ecologists working on species located in the south and west of England, the whole system seems weighted against those located in the north of England.
- 1. Accreditation levels should be based only on species (not species and roost types). Accreditation for impacts on a species should require the consultant to be competent to deal with impacts on all stages of that species' life cycle (i.e. all roost types/situations). 2. If species are grouped, then species groups should not exclude consultants because of their geographical location. e.g. the current Species Group 2 includes Serotine which has a southern bias in its distribution. Level 2 accreditation requires experience with rare species which again have a restricted and southern distribution. Currently, consultants outside of the geographical range of these species would be excluded from applying for Level 2 or 3 accreditation and therefore cannot work on maternity, satellite or hibernation roosts of any species at all. e.g. In Column 3 it states "... evidence experience of setting appropriate objectives and designing strategies for mitigation, compensation and/or enhancement plans designed to benefit a range of Group 2 and/or Group 3 species,...". Note that it says "AND/OR" so the consultant must have evidence of experience of either Group 2 AND Group 3 species, or of Group 3 species. So consultants who don't work within the geographical range of the rarer (mostly) southern species cannot (legitimately) apply for an Accreditation level that allows work on maternity, satellite or hibernation roosts of any species.
- Regionality - a Leisler's roost would be of higher conservation significance if foud on my local patch as they are not typically found in the north-west. So something which ties the conservation significance of the roost to the local area would be useful. I wouldn't want the

conservation signifance to go down in relation to regionality though - for example places which have reasonable numbers of barbastelle wouldn't downgrade the importance of their roosts, of course!

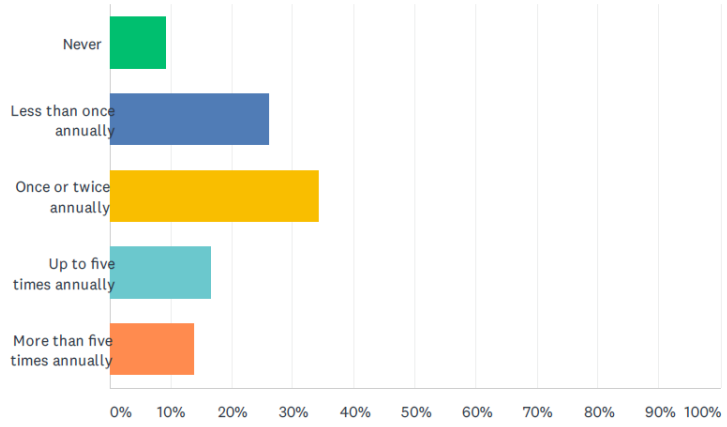
- I think being able to deal with the unexpected.
- These are typical woolly CIEEM competencies, these competencies need to be specific to tasks (ideally with nothing to do with the competency system and style that CIEEM currently use).
- Concerned as to how competency levels are going to be assessed.....we are all aware of well known and respected ecologists who you've disagreed with when reading an assessment or report of theirs and when you've gone to site ...been proven correct and even fallen out with the LPA over some issues ...and they themselves have been caught bad-mouthing consultant ecologists...when they rarely go out on field visits and undertake the work they themselves judge in planning applications etc. I know many members of the Royal Society of Biology who are not members of CIEEM and vice versa - will ecologists be judged the same. will there be enough time for consultant ecologists to read all the information they need? It seems that even the smallest development (on a 6 month old tightly sealed property in an urban landscape) is now asked for a bat survey - when many LPA's used to use a risk based judgement.
- Previous experience.
- It can be very difficult to evidence examples of mitigation/compensation for Grp 2/3 species, just as such sites/roosts tend not to be encountered as often. However, I don't think that means that a conscientious, resourceful and responsible ecologist can't deliver appropriate mitigation designs for Grp2/3 species through research, collaboration and learning from associates who may have such experience.
- If you are an ecologist who has acted as an accredited agent (AA) on mitigation licences but not been a named ecologist, can the situations where you have been an AA be used as examples to demonstrate a competence?
- Experience, effective of mitigation, knowing what works.
- I think there needs to be a way to recognise that an individual may have quite a lot of experience of common/soprano bat maternity roosts (as these are the most commonly encountered species across the UK) but much less experience of the other species and roost types required for Level 2/3 and there is no way to recognise this currently.
- It has a big emphasis on large complex sites, but you can have rarer bats within small developments, and even within householder applications which we have been dealing with for over 20 years. If I cannot obtain a Level 3 ER you will destroy my business.
- There is no info on how recent the examples should be. I have examples of complex situations I have worked on within the past 10 years but not within the past 3 years. We should be able to use examples of historic situations.
- There appears to be no indicator activity related to establishing a baseline. In general there is an over-emphasis on experience and providing examples of previous work, which will prove a barrier to entry for those unable to obtain prior experience, no matter how well-versed in the relevant principles and thorough in their execution.
- Previous experience.
- If you move job and end up working on much larger schemes, I see this as being a hindrance to being able to develop yourself as there are so many fewer consultants out there doing the good work.
- It's ridiculously complicated and written in management gobledegook. We already have an accreditation system, the Bat Workers Manual covers everything that people need to know, there is a licensing system based on accreditation already and it favours practical people who have done a lot of work with bats. CIEEM do not like this approach because people like that are not able to speak management baloney. This whole system is being set up because Natural England are being defunded by the Government, this is not the answer to that problem. This is privatisation of ecological services by the back door and it will lead to worse outcomes for bats. I have seen consultants apply for licences with three surveys done in September and NE refuse them. There will be no checks on this with this system. How will CIEEM find out if anyone does bad things? It relies on people being reported by someone an how will anyone else find out? The whole thing stinks.
- I think they cover the requirements of professional practice well but are potentially a bit over complicated.

- At the design stage it is important to get client (and other relevant stakeholder) agreement otherwise the best designs are worthless and won't be delivered. This may be included in other competencies, but I think this perhaps shifts the emphasis of the client/stakeholder engagement to post design. It doesn't have to be completely covered here but some evidence of experience of design meetings or otherwise should be included in this competancy.
- My comments in Q27 relate to the vague statements 'more complex' as these are undefined hence response to this question as dont know. I agree on the whole with the statements but without more detail it is difficult to comment specifically....?
- Consideration of regional differences. This structure makes it more possible for workers in the south of the uk. With climate change species are shifting and this will commoditise' buying experience' or enhance the licence for hire nature of unscrupulous consultants.
- Regionality - e.g. an ecologist in East of England may meet all the criteria for Level 2 or Level 3 Accreditation but not for 'A RANGE of Group 2 and/or Group 3 species' - i.e. wouldn't have experience for those species which do not occur in the region (or are extremely scarce in the region) - yet may still have all the right skills & experience for the species within those groups that do occur in their region... So Accreditation Levels need to take into account regionality specifically with regards to species experience - otherwise will exclude experienced consultants from certain regions from gaining Level 2/3 simply because limited range of species occur in their region.
- I am not sure what this table is seeking to convey. Each row of the table sets out a competency, fine, these are the skills we should possess and, by definition, the level of skill for, an accreditation level three for a given species will be higher than for a level one. Would it not be easier to state that the competency needs to be demonstrated to the level of accreditation that is sought. but then cross references it to the level - or have I misunderstood this table.
- My concern is that it will be near impossible to secure a Level 2 or 3 licence if you haven't had experience of them in the past. Our typical residential projects involve Level 1 species with occasional maternity roosts of increased significance. Exposure to other species / situations is the limiting factor, not our competence. However, should a project drive of greater significance we may not be able to progress it if we don't have an appropriate licence holder in the company.
- All very new and need more time to consider.
- I believe the competency to be clear and proportionate, although I feel clarification at to the definition of what qualifies as "large-scale or complex development scenarios", may assist applicants when completing the framework.
- Not sure at this stage.
- Not sure if this is appropriate here but as someone who works for a large consultancy on major infrastructure projects that extend for many years it would be good to have a route through the accreditation levels that is not based on number of licences held and species licenced as this is not easy on these kind of projects. I would have just as much competence in species mitigation working for several years on a complex licence as someone who submitted 20+ licences for very small developments. My concern with competencies is generally having multiple examples as opposed to in depth examples of competence. High numbers does not necessarily mean high competence.
- A timeframe from which evidence of experience can be drawn?

Appendix 6. Responses to Questions 33-39 Other Elements of Bat Work

Question 33. How often do you carry out mitigation work on trees?

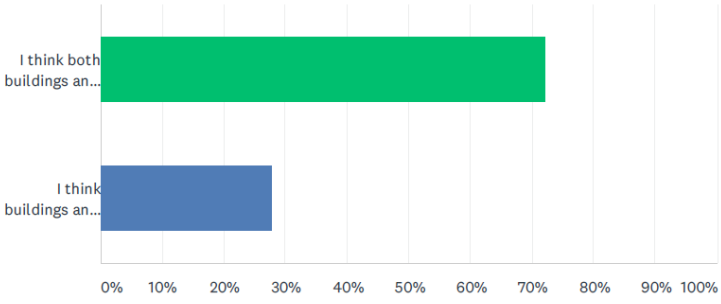
Answered: 218 Skipped: 34



ANSWER CHOICES	RESPONSES	
Never	9.17%	20
Less than once annually	26.15%	57
Once or twice annually	34.40%	75
Up to five times annually	16.51%	36
More than five times annually	13.76%	30
TOTAL		218

Question 34. Should there be separate ER accreditation schemes for mitigation licensing relating to those who work only on built structures or only on trees?

Answered: 215 Skipped: 37



ANSWER CHOICES	RESPONSES	
I think both buildings and trees should be included under one accreditation scheme	72.09%	155
I think buildings and trees should be dealt with under two separate accreditation schemes	27.91%	60
TOTAL		215

143 comments were received and are provided in full below.

This raw data has not been amended in any way and in some cases represents a misunderstanding or misconception on the part of the respondent – the comments should be read with this in mind.

- A roost is a roost, a mortice joint in an oak beam in a barn and a branch on the tree are the same thing. Survey methods may vary due to the roost ecology but the general competency should recognise this.
- If we want to integrate bat licensing into the tree world better than it currently is... it would make sense to separate this as a separate discipline so that cross profession earned recognition would be possible. I.e tree surgeons becoming competent to assess bat roosts in trees and to adequately mitigate and compensate for impacts. Dealing with trees and buildings are very different skills. Training and skills and competencies should be specific to each discipline.
- Ecologists should be able to assess roosts regardless of location. however perhaps trees should be specified differently in the licence.
- The scheme already seems complex enough without splitting it further in this way.
- It would enable consultants to undertake a broader scope of mitigation work, providing they have adequate experience of dealing with both structures and trees. The expense and time involved in undertaking two separate accreditation schemes is likely to be detrimental to the organisations involved in providing the schemes and also to the consultants having to become accredited for separate schemes.
- I don't think there is any need to split buildings or trees.
- Two separate accreditation schemes. Survey of trees and specifically potential roosting features within trees often requires these trees to be climbed and inspected. Ideally this should be done by the licensee who may also be required to attach exclusion devices. Otherwise licenses may be issued to a consultant with no competency to actually endoscope the roost themselves. Usually this would be the most appropriate course of action immediately prior to felling which would either require further exclusion or confirmed absence.
- I'm reluctant to advocate separate accreditation schemes, but It's increasingly clear that different approaches and techniques are often needed for trees. Roost surveys, for example, are often not the most appropriate survey method. Unfair to hold back consultants with expertise in buildings but little experience of trees.
- I think surveying buildings and trees have approaches and requirements that need skill sets that vary significantly and training and experience for one does not necessarily prepare you for the other or translate directly.
- Otherwise it risks over complicating the already complicated approach & many matters involved are the same.
- The accreditation scheme should ensure that the applicants are suitably experienced surveyor and bat worker to assess impacts and implement appropriate mitigation for both trees and buildings, rather than separating out.
- Many simple garden tree roosts, and roosts in tree-mounted bat boxes in small gardens, are within the competence of the surveying ecologist, and for small scale housing extensions and development it makes sense to include them in one scheme to limit the expense and complexity of domestic home extensions, which if too onerous impact adversely on bat conservation.
- I am not fully sure, I think I would like to see more details and reasoning especially around certain species, and think that there is a difference in the species groups and roost importance for trees.
- I think the knowledge and experience for tree and building roosts, survey, required mitigation and soft demo/felling methodology etc, is different enough to warrant requiring experience of each. Rather than being able to show experience of one in order to work with both. However, I think this could be dealt with as an 'add on' to an existing accreditation level.

- Trees are a very different area. I do however have some concerns about the amount of focus that an ecologist would need to have on trees to have enough examples to gain accreditation. Tree work needs to be reasonably priced to encourage applicants to 'do the right thing'. If the two were separated, tree specialists would be able to charge a premium and this would be to the detriment of bat conservation.
- Different competencies, trees more complex to survey from ground level, climbing required.
- It is a good question! Having a single accreditation scheme to cover both trees and buildings would clearly be more efficient in the long run, however based on my own experience (being a certified tree climber for nearly eight years and working with woodland bats quite a bit) I would say that working with trees requires a slightly different skill set, in particular regarding the design of the survey effort, survey methods and timing of such surveys. Assessing and surveying trees can be a complex affair especially when dealing with a large number of trees potentially affected by development, and is a topic I often discuss with colleagues who primarily work with buildings and are unsure about their approach when dealing with trees, and whilst they are clearly experienced in surveying built structures, it is clear to me that there is a slight knowledge / experience gap. Saying that, perhaps some of this gap will be filled by the upcoming update of the bat surveys good practice guidelines?
- Due to the different natures of these roosts, the skills associated with surveying, assessing and mitigating for these structures differs in the approach required.
- I feel this will take too much time away from doing the actual work. Too much time in my view is already taken up submitting documents and this seems necessary when I feel it works as is.
- Bats and trees are a complex and not fully understoood. A thorough knowledge of trees their form and function is requried for anyone wokring on mitigation for bats and trees. Without such knowledge inapropriate mitigation measures will be implemented.
- I think it would be simpler to have one scheme - could a scheme be designed that accommodates ecologists who only work on trees or buildings?
- Why would you separate them and what about other structures such as caves/natural walls? Personally I feel that it is an ecologists jobs to advise on mitigation and if you separate them you may get arbor culturists trying to advise on mitigation, which is worrying from experience.
- The survey and interpretation skills and understanding of arboricultural practices are quite different from working with bat roosts in built structures.
- One accreditation scheme. Simple. It is more efficient to do it this way.
- Two separate accreditation schemes. Because the skills and specialisms required are different.
- The general structure of roosting features are generally similar to buildings. So, should be treated the same.
- Bats use both built structures and trees. Ecologists should understand how they use both to consider impacts.
- Two separate accreditation schemes. Given the number of trees I have worked on in the last year, there are always complications in woodland felling. More so than I have found with buildings. The mitigation and compensation requirements can vary during felling and bat behaviour.
- This proposed scheme will cause additional licence admin for consultant ecologists (on top of everything else already required for licences such as returns, CPD, applications, monitoring reports including personal licences etc. etc. (for all protected species)) which may already be pushing the capacities of some firms. Splitting accreditation will just create more work for ecologists whilst Natural England reduce their responsibilities. Keep as one scheme. Are the team even aware of the huge amount of existing admin work that consultant ecologists already have on their plate? It feels like this scheme is just messing with something that already works and moves the admin side of things from Natural England onto consultant ecologists. Will the end result actually be significantly better for bat conservation? Unlikely. Will it add further stress and time-pressure to ecologists? Absolutely. Licence applications will cost more to produce as a result of this proposed scheme. These costs will be passed on to

the client resulting in more negative headlines for bat conservation. Natural England should not be making these proposed changes as it shirks them of their responsibilities. You should be requesting a larger budget from the Government to cope with the number of applications.

- It seems ridiculous to increase the level of bureaucracy and paperwork involved by splitting out buildings and trees. What if there's a site with a tree and a building on it? Would that have to be registered under two different schemes?!
- Although mitigation techniques vary between buildings and trees i dont think the differences are significant enough to justify a separate scheme.
- I'm not clear as to why they would need to be separated.
- The accreditation scheme should take a holistic approach to bat licensing and ultimately conservation, thereby buildings and trees should be included.
- I believe it would become too complicated if they were separated.
- I do think the process needs to be as simple as possible and this does risk making it rather complicated. The general principles are the same although I appreciate that the assessment of roost types, survey planning/type etc are slightly different. I see no reason why an ecologist shouldn't have a good all round understanding of the species they are working with, whether they are roosting in trees or buildings.
- I think that splitting the two would be more problematic than continuing to keep them under one scheme. I would hope that most ecologists working with bats understand the individual issues and intricacies associated with roosts in trees as compared to built structures.
- Not sure how to answer previous question, as the answers differ dept on if you mean 'advise on' or 'do'. However, I do think ER scheme should not disenfranchise those who specialise in tree work by making building elements compulsory...
- Bat ecology doesn't change, a roost is a roost, whether in a tree or in a structure, I don't understand why it should be dealt with differently.
- One accreditation scheme. Less confusing for the clients.
- Roosts in trees are not much more difficult than buildings - often intermittant use, signs not always easy to find.
- They are two separate disciplines and we are just starting to uncover the complexity of bats in tree roosts.
- One accreditation scheme. It is already becoming far too complicated.
- From experience of the BMCL scheme, there is potential for situations to arise where a development may impact on (for example) two day roosts used by single bats, one in a tree and one in a building but only the roost is the building can be dealt with under BMCL. This has negative impacts for the developer and for bat conservation.
- Basic principles should be the same - access issues are potentially different but not necessarily.
- I think anything to try to simplify this process will be of benefit. Too many options and separate documents where cross referencing is required really increases the risk of errors and need for further work by Natural England.
- The accredited ecologists should have the background understanding of bat ecology and behaviour for both buildings and trees plus the appropriate survey and mitigation approaches. By separating them into two schemes it could create more work when registering sites if they involved both built structures and trees.
- Tree roosts are typically more dynamic than those in buildings and harder to identify and classify (particularly for more cryptic species). Demonstrable experience specifically for tree survey and mitigation would be easier to assess separately. Also, fewer consultants are likely to require tree roost accreditation.
- I don't think it will be helpful to generate two silos of expertise and professional competenciesand standards. Earned recognition should be the preserve of those who are able to do both.

- Having two schemes, means two set of additional paperwork to complete, this should be a single scheme with seperate tree and structure levels. i.e. Level 1 might not inlcude any licenseable tree work at all.
- Splitting them adds yet more complication and bureaucracy to the situation. They should perhaps have extra "entitlements" or recognition attached such as for working in confined spaces skills or tree climbing skills.
- Two separate accreditation schemes. I deal with many trees on many sites rather than built structures so have a higher level of competence based on more experience and knowledge.
- One accreditation scheme. Avoids any confusion on all sides.
- The principles for tree and building roost mitigation are essentially the same; a lack of competency in either will demonstrate a lack of competency generally.
- I disagree with this accreditation scheme.
- Both mitigation measures of similar design and should be included under the same accreditation scheme or becomes too confusing.
- Tree climbing and access to supervised tree climbing is or can be vital in understanding roost usage. These are specialist skills that require separate training.
- Surveying trees for bats is a specialist field and the assessment of roost status/identification of species present is inherently difficult. My personal view is that if you don't have the technical skills/qualifications to climb trees and assess potential roost features yourself, then you should not be accredited on licences for tree roosts. You should also have proven experience of survey and mitigation for bats in trees in a range of situations.
- I think trees and buildings should be on one scheme to create a streamlined approach and avoid the need for several accreditations and applications. If you are a competent bat ecologist you should be able to demonstrate an understanding for bats in both buildings and trees.
- Trees could be covered under the assessment process of complex situations associated with Level 2 and Level 3 accreditation.
- The survey techniques and required mitigation differ, and increasingly so. It would seem sensible to specialise.
- Different experience levels, different mitigation requirements, different knowledge.
- There are considerable differences between survey techniques and the types of mitigation, as well as the species encountered, when dealing with built structures and tree roosts and it may therefore result in better outcomes for bats if these are dealt with separately.
- Two separate accreditation schemes. I think trees are harder to survey for/mitigate for, due to the complexity of structures and how they are used by bats. Therefore I feel more skill is required.
- Most of our work is buildings and trees so it is better to include them together.
- I think many bat licence holders should have enough experience of both during their training and work. Tree work could be included as an additional accreditation for those who are not sufficiently experienced with tree work. If you had 2 accreditation schemes for everybody would that not generate more administration work for NE, which surely is one of the main drivers for this new scheme.
- Trees will have a higher level of uncertainty and therefore a higher level of experience required to assess impacts and effects on bat species.
- Buildings and trees provide different requirements for bats and species and should therefore be treated separately. The experience the ecologist has with a certain species and habitat/roost type needs to be considered and it may be possible to separate this in a difference accreditation scheme for trees.
- I think it should be one scheme as it the skills/knowledge are transferable between them. Maybe there should be a competancy on bats in trees which you must demonstrate. I think splitting into 2 systems undermines the efficiencies and then whee do you stop-spilt bridges from buildings? I was staggered to to read of the attitudes of some very well known ecologists and bat workers recently regading appropriate levels of survey in trees. I think it should be

defined, presumably it will be in the 4th edition and then there is a decent piece of guidance for those with less tree experiecne to follow.

- To be accredited you need to have skills that cover both.
- Trees are used very differently to buildings and the use is far less understood.
- It's a wholly artificial distinction. Bats don't select roost sites qua building or tree, but on the basis of the security of the site and its microclimate.
- Most ecologists will have less experience of tree roosts unless they are climbers or like me have spent lots of time doing mitigation work for HS2 as an accredited agent supervising tree felling.
- If trees are not included it is likely that the majority will not have sufficient experience of trees alone to qualify which will be problematic for clients having to find consultants that do have the necessary licence and difficult for us not to be able to see the project through.
- Two separate accreditation schemes. Not comparable at survey level nor is the mitigation the same. Significant tree roosts are rarely found.
- I think the scheme would become overly complicated if trees and built structures were treated separately. Admittedly you are more likely to come across rarer species in trees, but this is already accounted for by the way the species have been grouped.
- I think this because I do both, I guess there are arborists who only work on trees and this scheme won't work for them. But having two schemes for people who do both will be even more ridiculous.
- The Legislation is the same - at present in the UK (very broadly), there are 2 systems for bats - 1 via the Planning System and the other for bats in trees. The bats in trees is the wild west and completely inconsistent. Consider large scale forestry and OHL work and then compare it to the workload and costs some poor homeowner might have to endure to protect bats if they have a single pip in their extension - it's a bad joke. The Legislation has no such lack of clarity. Bats in trees need to be addressed in a consistent manner than ties in with bats in buildings - or change the legislation. If you run two seperate schemes for buildings and bats then you will enshrine these differences further. I would be strongly against this. If there needs to be a thorough review of bat survey and Licensing to enable bats in trees and bats in buildings to be brought on to an equal footing, then so be it.
- I believe many bat ecologists on the scheme should understand the role that tree roosts play to specific species and how to mitigate these. However, I believe that their should be separate survey licences or an annex to allow for surveying bats in trees as it is significantly different to surveying for buildings and many ecologists do not regularly deal with tree surveys and therefore can easily miss suitable features.
- One accreditation scheme. Impacting on the same bat species using the roost in similar ways.
- The guidance relating to tree surveys is currently fairly limited and the approaches taken to obtain survey information varies more between individuals than the recognised level of survey effort required for structures. Therefore I think mitigation licencing for trees should remain unchanged until survey guidance in relation to tree surveys is more rigorous or adhered to more consistently.
- Although they are very different roost types I think the whole process would become too complicated and takes away from the objective of being more streamline. A bat consultant should have a good understanding of all roost types.
- Trees are often present within an impact area and should always be considered in combination with any potential impacts relating to built structures.
- Although subtly different skills and experience are needed, the general principles are the same and the majority of competencies would overlap.
- I'm not sure about this one. Personally I work on both types and all of the other named ecologists I know do (albeit I speak as a consultant) the additional assessment/accreditation seems like a waste of time and may encourage some companies to only cover buildings, leading to delays when a tree roost is discovered. I'd also be concerned this misses a significant part of most of our species' lifecycles if an ecologist did not have to demonstrate competency with tree roosts. If there were too schemes I'd say this would be most relevant to

group one roosts with (in my experience) a lot of common/soprano pipistrelle and BLE mitigation licences being restricted to buildings.

- One accreditation scheme. Similar situation arose with the old scheme whereby bat box licences were granted however if someone hasnt a good understanding of species ecology and a more advanced level of skill identifiying all species, sexing, aging and handling then they could cause serious harm to bats in a box. In the same light I believe someone solely working on trees would not have the level of skill, knowledge of all round ecology to work under this scheme given what they would be entrusted to do.
- By separating buildings and trees there will be an increase in paperwork for both consultant and whoever is determining applications, much of which will be repeated in both. For anyone who is competent with bat species, especially in tiers 2 and 3, they should be well aware and competent of the risks in different structures (built, or trees) and therefore should be able to apply their knowledge appropriately.
- The actual mitigation for for trees and buildings is similar. The assessment is not, trees surveys are complex. If the new 2021 BCT survey guidance takes account of the BTHK methodology and shapes an assessment of tree roosts based on evidence then I imagine the survey and assessment standards for trees will be raised adequately for one accreditation scheme. However currently, under the third edition of the BCT survey guidance where survey and assessment of trees and woodlands is poor and roosts are being missed I think that two seperate accreditation schemes based on experience would be preferrable.
- A lot of consultants work on sites that have both trees and buildings and from this perspective it would be easier to have both buildings and trees included under one scheme to save complications where a single site needs to be registered twice and/or registered by two different consultants (one who is accredited under trees and one under buildings) - I think the accreditation scheme should ensure that it sufficiently tests consultants ability to mitigate roosts in trees and buildings, the consultant should demonstrate they have the knowledge to do both to a high standard - the same way they should demonstrate experience in tree and building surveys in order to obtain a personal survey licence.
- Provided the competencies take in to account the ecologists experience of both built structures and trees I think a combined approach is applicable. More often than not trees also require consideration during an ecological survey (even if no roost is present).
- Different guidance, same scheme. The red tape is likely to spiral completely out of sight if not. We don't want trees to be sidelined to another scheme that no-one knows about & LPAs etc ignore as per current guidance where those of us who climb trees don't have good standards to point to apart from within our own community.
- I think structures and trees can be included under the same ER scheme as long as ecologists being tested or signing up for the scheme can prove and be tested for both trees and structures thoroughly. I feel it is more applicable to have trees and structures separated for survey licenses than it is for mitigation licenses as so many people get trained and gain a licence without ever surveying or having good knowledge on trees but once they have this survey licence they can go and survey and provide advice on tree roosts.
- Mitigation measures are different and a lot of consultants will have had no experience with tree roosts. If they had to prove competency for trees in order to get the accreditation, it might be a stumbling block for a lot of otherwise competent ecologists.
- I think this opens a real can of worms. It would make more sense (especially for the level 1 cases) to make this one licnece, for efficiency if nothing else.
- I think the skills required for working with bats in buildings and trees are transferable and one accreditation is suitable.
- In my experience bat ecologists who do not undertake aerial tree climbing inspections for roosting bats are less well versed in the ecology of tree roosting bats as well as how Potential Roost Features (PRFs) are formed, their suitability for bats etc. An ecologist who is able to climb a tree and determine the dimensions of the roosts as well as gathering other information would be able to make a more informed decision regarding mitigation as opposed to someone who has identified and classified a roost from ground-based data only.

- As bats use trees or buildings or both, it is necessary to have a knowledge of bat use in both habitats. There is also an ecological relationship between the two structure types, where bats are concerned.
- I would consider that if you are suitably experienced to be a Level 1, 2 or 3, you should have knowledge and a level of experience in both. I think that it is fair to say that trees are being surveyed more than ever before and in more appropriate ways, and subsequently a much greater number of roosts are being found. As such, licences for tree roosts are only going to become more frequent.
- Trees roosts by there nature are extremely different from buildings and there use by bats is also very different. Identify or proving absence of a roost is very difficult and the actual survey effort to gain an accurate assessment has been proved to very high well above the standard guidelines. In addition trees roost assessment or categorisation is very subjective and often ecologists refer to dense ivy clad as high when very little evidence has been found of bat roosting behind ivy (two occasions I think as per henry andrews).
- Although there are likely differences in the mitigation methods involved, required overall knowledge of bats, habitats and their requirements are needed for both.
- The preference for buildings and trees can be species-dependent and, as such, those that work primarily on buildings will not likely have the knowledge or experience of dealing with roosts for species which are generally tree-dwelling, e.g. noctule, and vice versa. If there is too much reliance on individual ecologists to use their discretion, it leaves the scheme more open to abuse, especially in larger companies where there can be greater pressure applied to licensed ecologists who may not have sufficient specialist knowledge. I was quite taken aback earlier this year when talking to a licensed bat ecologist (and senior staff member) within a large consultancy, who stated "bats are easy!" - the more you know and understand bats and their ecology, the more you realise how little we know about them! Similarly, some independent ecologists do not like passing work or clients onto other specialists with greater knowledge and experience and may carry out work beyond their competence. Ensuring ER Accreditation only covers those species/roost types an ecologist has knowledge and experience with would reduce the likelihood of poor advice and mitigation strategies being implemented. Even with membership of a professional body, lone workers are less likely to be held to account as builders/developers/clients are not likely to raise concerns with the relevant professional body if they are benefitting from malpractice. Therefore, nobody would be any the wiser and the ecologist would not be held accountable for their actions.
- Often people will either work with both in which case they will be able to demonstrate full competence with both, or tend to be specialised - such as tree climbing ecologists and may not have the broader experience of buildings too and therefore it could be simpler to split in two to give those an opportunity to demonstrate competence.
- From my experience there are far more projects involving buildings than trees. Having buildings and trees together might exclude an ecologist from the accreditation if they do not have the comp.
- Keep it simple!
- I have raised these comments earlier. Huge difference in approach and technical ability as well as experience of licence holders. I agreed with the BMCL not covering trees, as the way bats use trees (individually) and buildings by comparison is very different. There needs to be a risk based approach. It may be easier to have a small number of trees on a site with some PRF replacement mitigation and a standard bat rescue, almost method statement type approach- with larger sites need a much more habitat based approach (not just for NSIP) but large schemes generally. The baseline surveying for trees is so much harder too, so often the licences based on existing approaches to trees/woodlands without a habitat approach are totally under estimating the impact. This whole subject needs a major overall. Buildings are so much more straight forward in comparison because roosts are more defined)in a number of cases), information easier to gather, and mitigation easier to implement. I think it would be good to focus the scheme on that (on what I suspect are the majority of licence applications and relevant to most developers and home owners etc i.e. the majority of the client base),

than to try and cobble something for trees and woodlands when we don't even know how to do surveys well enough for trees.

- The two structures are totally different, bats use these structures in different ways. So I believe they should be separate.
- It would be difficult to acquire the necessary experience with tree roosts, e.g. covering all species.
- Mitigation prescriptions for trees are fairly limited (bat box, re-used cavity erected elsewhere, veteranisation/roost creation in standing trees) and is not complex enough to warrant a separate system. SURVEYING trees on the other hand is a different matter!
- Should be greater scope for Arborists & Tree Surgeons to carry out bat SURVEYS of trees (inc endoscoping), but licences still likely to require ecologist technical knowledge/skills/experience. Perhaps there needs to be a separate Bat Survey Class Licence for those working only on trees (allowing them to survey & disturb with torch & endoscope and inc hibernating bats - but no requirement to be able to handle bats)?
- Although there are many similarities between the methods of trees and buildings there are also differences, and potential differences between the skills needed (tree climbing, for instance). Not every job, however, will need that so perhaps that is an example where the accreditation table could build different competency levels in for surveys - ie a basic, ground level survey of a tree will not require the same level of skills as a survey that requires climbing.
- They are completely different structures and are used by bats in different ways. The mitigation licences I have held for trees have been applied for on the grounds of Health & Safety.
- I don't like that BMCL doesn't cover trees and think that a single scheme should cover both.
- Two schemes doubles the effort needed in accreditation.
- Although it would be preferable to include buildings and trees under one scheme, if an ecologist can demonstrate a capable/accomplished competence on trees but has not worked on buildings then I think a separate scheme should be included.
- Requires the same core skills, but processes are completely different. Trees pose a whole diffiernt set of constraints and difficulties. Different levels of skill depending on whether a surveyor can climb or not as well.
- One of the aims is to streamline application processes and it is likely that larger schemes will have impacts on both. An ecologist should have good working knowledge of bats in both type of roost locations to hold this type of licence.
- Bat ecology in trees is a completely separate discipline of bat work in my opinion and there is a general lack of understanding and competence in this field. Therefore a different approach likely necessary for demonstrating competencies.
- It should be one license overall but you may choose to split lowest level between trees and building on the basis that at entry level 1 those applying will have less experience than people applying for level 2 and 3 and may reduce their initial ability demonstrate competency in both areas and therefore reduce the number of people able to take up the scheme and therefore the overall usefulness of the ERscheme to assist people.
- Structures and trees vary considerably and require different competencies to mitigation for these. However, there is also overlap and perhaps within the ER there could also be some overlap, e.g., low value tree roosts/structures.
- I can't think of a good reason to keep them separate.
- I believe the emphasis on separating trees from structures should be one given more to the survey licence more so than the mitigation licence. Albeit there are differences between the two, the species ecology, timings, alternate roost provision and landscape mitigation requirements remain broadly similar across the two (trees & structures). Where the big difference lies is in the project management and roost removal / destruction process, but in my experience if an individual can confidently manage a team of roofing contractors, they can manage a team of tree surgeons and vice versa.
- I think that both could/should be covered together. However, I can see the benefit for suitably-experienced arborists of having a tree-only option to cover their work?

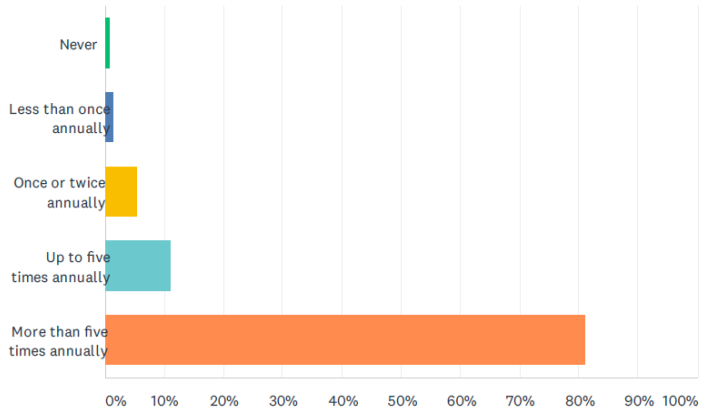
- I don't think that emergence surveys for bats in trees are particularly useful and I think there should be new guidance on the most appropriate ways to do this. The types of survey required for reliable results may be outside the scope for most consultants, and it should be considered a specialist area, with specific training.
- Bat roost in trees is much trickier to ascertain. Numbers and species may be under represented. Therefore a separate skill set.
- I feel you should have skills to handle both situations as a licensed bat ecologist.
- Low level examination of trees can be carried out by most ecologists however more specialist tree climbing works requries more training and insurance therefore the two are not the same.
- Bats which use trees also use buildings, therefore an understanding of their use of both should be required by people applying for licences. Furthermore there may be very few people that obtain ER for trees.
- From a personal perspective for our company it isn't clear how frequently work with trees would be required by clients . Therefore it would be useful to not have to reapply for the accreditation to work with trees if the accreditation expires.
- I think this has too much potential to create conflict on schemes where both building and tree roosts are impacted.
- I have over 16 years experience as a bat consultant (BLICL & Lvl 4 license). Although I carry out survey and assessment of trees, it is very rare that I will need to remove tree roosts. This is more relevant to consultants who are working on large infrastructure schemes etc that might require large scale tree removal. So a seperate ER would be more relevant to bat workers like myself who principally work on small building developements and barn conversions etc.
- One accreditation scheme. However there is potential here for there to be a difficulty becomming accredited it the appropriate experience has not been gained. And I am VERY conscious this could be misused by people thinking they have the competencies as they have years of experience.
- Keep it as simple as possible. The is significant crossover in the skills required for either.
- If they are considered competent for a certain level why should they need to apply for another ER scheme? Perhaps include trees on the various levels as it will encourage consultants to upskill.
- Experience in identifying tree roosts and appropriate mitigation can require some different skills and training to that of buildings.
- To ensure bats are better protected anyone accredited by the Arboricultural Association or similar accreditation schemes should be made aware of the new migation scheme and have to go through the new accreditation scheme if they want to carry out bat mitigation work on trees.
- I think that the two should be covered under the same accreditation as most people would tend to work with both. Maybe there could be exceptions and/or conditions for those who are specific to buildings/trees so that they can only use their accreditation on those. Just in terms of paperwork this makes more sense.
- Mitigation competency for both habitats should go side by side. I think you must know how to deal with all scenarios to be deemed competent.
- Roosts found in trees are often very different to those found in buildings, the type and extent of use of tree roosts fluctuates in a different way to those within buildings and therefore compensation and mitigation for tree roosts is very different from building roosts.
- Generally I think one accreditation would be better, however ecologists experience with trees is very variable, perhaps this is something that can be added into he competency to ensure the ecologist is sufficiently experienced in tree surveys. Could this be an 'add on' to the accreditation to allow people with no tree experience to continue work on buildings rather than two separate schemes.
- This would allow arb consultants to work on trees where they would never gain sufficient experience to deal with building roosts. Conversely, allowing a consultant with extensive

buildings experience loose on trees, when they have little experience of assessing roosts/climbing etc. could lead to unnecessary/ inappropriate survey design etc.

- Buildings and trees should just be viewed as structures which may or may not be suitable for use by roosting bats. In my opinion a recognised bat ecologist should have the same level of mitigation experience for both.
- I have a role which spans a variety of land management activities, covering both structures and habitats. The requirement to demonstrate, in effect, very similar competencies as part of two separate accreditation schemes would be in my view unfair and disproportionate.

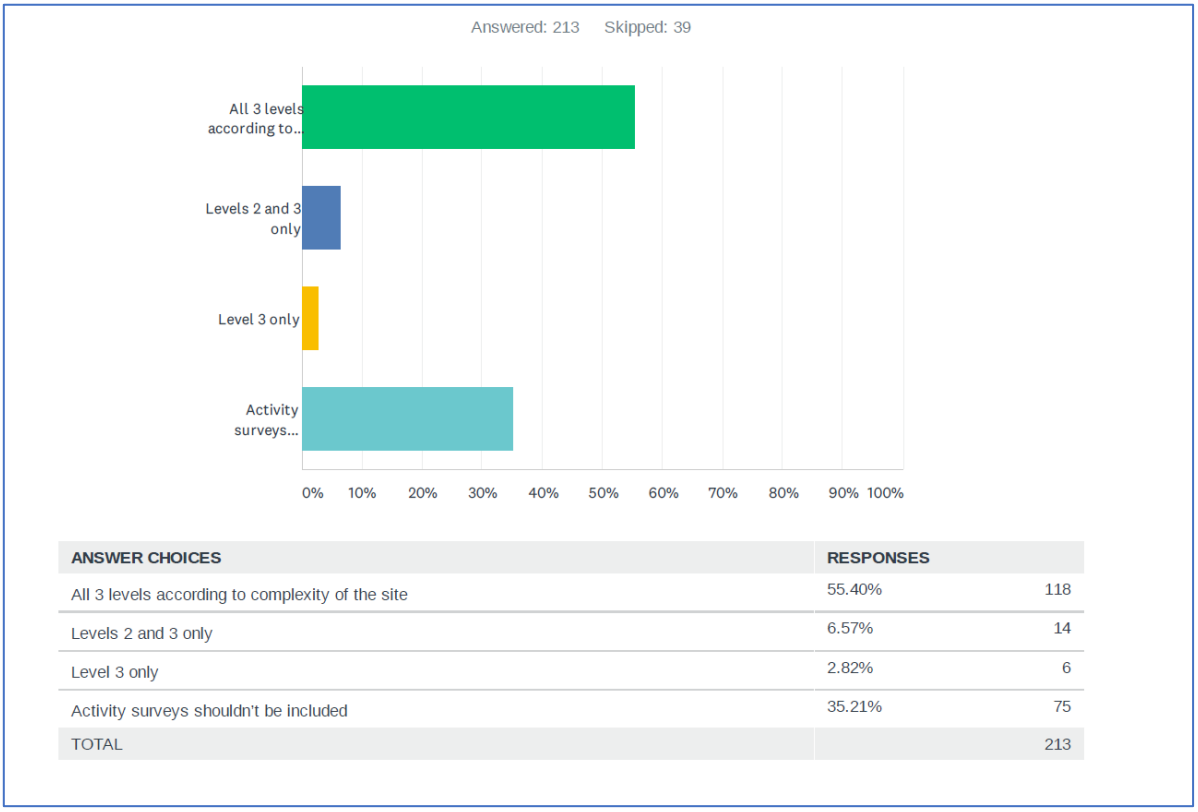
Question 35. How often do you carry out activity surveys as part of your work?

Answered: 218 Skipped: 34



ANSWER CHOICES	RESPONSES	
Never	0.92%	2
Less than once annually	1.38%	3
Once or twice annually	5.50%	12
Up to five times annually	11.01%	24
More than five times annually	81.19%	177
TOTAL		218

Question 36. Should activity surveys be included in the Competency Framework for the ER scheme (and therefore be assessed) and at what level?



ANSWER CHOICES	RESPONSES	
All 3 levels according to complexity of the site	55.40%	118
Levels 2 and 3 only	6.57%	14
Level 3 only	2.82%	6
Activity surveys shouldn't be included	35.21%	75
TOTAL		213

142 comments were received and are provided in full below.

This raw data has not been amended in any way and in some cases represents a misunderstanding or misconception on the part of the respondent – the comments should be read with this in mind.

- Activity surveys are another part of the normal suite of bat surveys skills that we use for larger developments. It makes sense that licenses ER consultants should be skilled in this too.
- It is a core componenet of a survey.
- Not sure I fully understand this question. Survey work is already mentioned in Tech 1, 2, 3, and 4. I don't think any further requirement is necessary.
- It is so important that adequate and robust survey work has been undertaken to inform mitigation that it should be included in the scheme somehow, for all levels.
- Activity surveys are designed to highlight important commuting routes and feeding areas and therefore this is often based on the size and scale of impact of a given development irrespective of presence of roosts.
- It should be a requirement to at least demonstrate knowledge of when activity surveys would be appropriate and how these should be undertaken. For example, in my experience automated monitoring surveys of traditional barns in areas where horseshoe bats are present can reveal use despite the absence of other evidence e.g. droppings.
- Activity surveys are integral to the licencing process and ensuring that they are undertaken well and proportionately using appropriate methods for the site is important.
- Should already be covered by the existing survey licences.
- Depends on the scale and complexity of the site. Activity are not always necessary, probably not in many cases, but may be required to inform mitigation design and location.
- Activity surveys should be part of the competence of assessing the site, I have seen too many survey reports that say there were cobwebs during a february or march survey and therefore there are no bats in a structure with high potential for bats.

- I don't see how anyone could be competent or suitable for any levels if they cant do and don't do activity surveys. You cant get experience without doing activity surveys and cant assess if activity surveys conducted are suitable if you don't do or know how they should be done correctly.
- I think it's entirely possible that the species and roosts included in lvl 1 would require knowledge of bat activity survey, such as where a tree roost is within hedgerow that requires a section of removal for an access road into a small housing development or even plant access. So in additional to complexity of the site I think it should also take into account the habitats present and to be impacted within the site.
- Recording equipment can help raise standards. Costs would be too high to make many schemes practical. It should be up to employers/individual ecologists to make sure their skills are up to scratch. A box ticking exercise wouldn't help raise standards of a practical skill/bat call ID. Voluntary accreditation scheme based on practical skills like FISC would be more appropriate.
- Need to show surveyors know where to position themselves, what equipment is appropriate for each site, when to use different techniques Also issue of working with survey team of differing skill levels, ability and concentration can hugely effect results.
- It is tempting to say that activity surveys shouldn't be included as bat detectors have evolved a lot in recent years and is now basically involves walking round a site and the machine tells you what the bat is (to some degree) and where it was recorded. That said, for me I think activity surveys are very important and understanding the activity on a site is key to establishing a detailed impact assessment and therefore designing a really robust mitigation/enhancement plan. I would not like to see these detectors take out the importance of having suitable levels of competency which I unfortunately see with other firms.
- Whilst activity surveys (I am assuming here that this refers to transect surveys and associated use of static detectors) are useful to gain an understanding of the general use of a site by bats and species present, the requirement for such surveys will depend on the type and size of development proposed and potential impacts, so I don't think including them as a separate competence is necessarily required for the ER scheme. If however it was to be included depending on the feedback received, I would say that this competency would need to be applied to all 3 levels (it is a basic skill that any bat ecologist should have and be able to demonstrate competence against, no matter what species or habitats are involved).
- Activity surveys are crucial to determining the impacts and determining what level of ER is required.
- We would almost certainly lose valuable sub-contractors, many of whom love the work but are not interested in paperwork.
- Activity surveys are often carried out by sub contractors and students under supervision so who would you expect to hold the competency?
- It's probably beneficial to have a level of competence in undertaking activity surveys in order to be able to appropriately analyse and interpret bat survey data to inform mitigation design.
- When you undertake activity surveys, they tell you so much more about a site/roost than you can gather from reviewing result sheets alone. If you are using the ER scheme then you should have undertaken at lease one of the surveys, especially for complex sites and where ever possible.
- Activity surveys are focused on landscape scale impacts on bat foraging and commuting habitat and rarely are directly related to understanding bat roosting behaviour necessary for bat mitigation licensing.
- If you don't do activity surveys, how do you know what on-site/local habitat features are likely to be important for the bats using the roost that ought to be retained/protected.
- Underused.
- Commuting and foraging habitat vegetation structures and connectivity should be fully assessed before understanding it's importance for roosting networks within regional areas.
- The surveyor needs to understand how bats use the landscape in able to identify potential effects of a scheme and to advise accordingly.

- If a roost is not being lost, mitigation for foraging and commuting bats can be implemented without a licence using sensitive lighting, planting and retention of habitat features.
- I rarely make it out on to site for work (but I do keep my survey standards high via voluntary work). But I have a good and trusted survey team. I can make it out to do a small level of survey effort but I am too busy to do regular surveys on every site. But I am the only one with sufficient experience to complete the assessments in my immediate team. I do think ensuring that assessors demonstrate that they have sufficient activity survey experience as a but it should be acknowledged that we often have experienced and trusted survey teams that complete the majority of surveys.
- This question is not clear. You need to define activity surveys. Activity of the roost as part of a licence application or activity surveys of bats away from roosts (i.e. walked transect surveys)? Either way, activity surveys should not be included as this competence is already met by the CIEEM Competencies scheme and would just duplicate things.
- The standard of some of the activity surveys I have seen when taking on projects is laughably poor. If you don't include this in ER, then you will have consultants registered on the scheme who are working off sub-standard data, even if superficially they have adhered to guidelines.
- Assume this refers to activity surveys such as transect surveys or static detector surveys to identify foraging and commuting activity, in which case this should not be included in the competency framework as it has little if any bearing on mitigation licensing.
- Activity surveys are not always relevant on very small sites.
- Activity surveys such as transects do not currently require survey licences to carry out. More obstructive activity surveys such as mist netting and harp netting should not be covered by ER due to the potential harm that can be caused by these surveys and the level of expertise required to hold levle 3 and 4 bat licences.
- It depends on the site. If it is a small site then bat activity surveys would not be able to be undertaken effectively. It would be useful information to gather for sites such as nationally significant infrastructure projects and roosts in or adjacent to nationally or internationally designated sites. It may not be as relevant for hibernation sites (depending what methods were used) but could provide interesting information for mating/swarming/maternity sites which may not be known otherwise but could contribute towards appropriate mitigation.
- The complexity of the habitat types present on site and within the wider landscape would effect the likelihood of bats using the site and what bat species use the site. This is an important consideration when assessing individual sites for bats.
- I think the process needs to be focussed on licencing only. I'm not convinced this would bring much value and it would simply complicate the process further.
- I think that evidence of how the ecologist has suitably programmed and undertaken activity surveys is probably required. No survey licences are required to undertake activity surveys so how can the ER scheme ensure surveys are completed adequately if licensing is 'relaxed'....?
- An overall perspective is needed.
- But only in terms of assessing/defining relevant experience - just being able to watch and look at sonagrams should be set as base level 1, knowledge of behaviour of adults and juveniles, lazy males, flight ID, heterodyne ID are all relevant.
- Activity surveys are important in examining the bat ecology and usage of a particular site.
- Group 3 species don't occur up north therefore including this element would discriminate against ecologists based in the north and favour those in the south and west - just because someone carries out surveys darn south doesn’t mean their mitigation skills are any good why are these schemes always run and designed for Bristol based ecologists?
- This question itself demonstrates that it isn’t going to work.
- Activity surveys allow a consultant to build up first hand experience of how bats use the landscape for commuting and foraging (which is important for understanding the significance of the location of a roost and therefore impact assessment and mitigation design). BUT, not all consultants undertake activity surveys as part of their day-to day commercial work so voluntary surveys undertaken for research/conservation/local bat group should also be allowable with appropriate evidence.

- No licensable activities are taking place. I'm unsure if this relates to surveys of habitat (transect surveys and statics) or emergence re-entry surveys. The aims of transect/static surveys (and therefore the survey design) can vary wildly. The aims of emergence/re-entry surveys will be guided by the needs of mitigation licences etc so should already be covered?
- Bat activity surveys shouldn't be included. On some occasions transect and static surveys help to identify roosts but they are more useful for assessing the importance of commuting and forging habitats.
- A sound understanding of how bats use a landscape is important to assess effective mitigation. A well-designed bat roost mitigation package in the wrong location will be ineffective.
- Activity surveys are often essential to understanding how bats use a site and what mitigation and compensation is most appropriate.
- I feel that assessment of competency for activity surveys should be covered separately; especially as the majority of activity surveys are conducted by non-licensed Ecologists.
- Now you mention it perhaps it should! Although I can't imagine anyone not being able to demonstrate this if they meet the other competencies (who gets to avoid them?!)
- Activity surveys are an inherent part of the assessment of a site and its importance to bat species.
- There is a skill to activity surveys.....but too many people are making money by specifying how many staff should attend aided by technology that they themselves offer training to use! A dawn survey is easily worth 2 dusk surveys, you can see the bats more cl;early and see exactly where they re-enter roosts...they are also the most thankless and miserable surveys known!
- Not necessary.
- Surveys may be needed for trees but for H&S reasons this is not always appropriate due to time of year any hazard is identified which need to be resolved.
- As its the foundation stage for most of the work there should be a requirement at all levels to engage in activity surveys, if only to prevent skills fade.
- No the licensed bat holder will have undertaken hundreds of such survey in their route to becoming licensed in the first instance. They should be able to decide and filter the survey results without the need for this to be in the Competency Framework. Seems a little patronising to be included.
- I think that having a competence in bat activity surveys is important to be able to put any potential licence site into the context of the wider landscape. Understanding and having experience of assessing how bats behave whilst commuting to and from roosts and foraging is essential in being able to deliver appropriate bat mitigation at any site.
- The impact of activity surveys depends on the type and size of scheme. Activity surveys can be important for certain species, to understand flight paths, or to understand if the site is an important feeding ground for a nearby roost. Therefore if a maternity roost was to be impacted the use of activity surveys may be important to understand bat activity and how the bats are using the surrounding area.
- I am presuming you mean carrying out activity transect surveys, automated and back-tracking etc. Competency in this is included under survey design.
- This is getting very complicated as everyone uses different analytic equipment.
- Where appropriate, activity surveys are an important part of a bat assessment. The correct survey design, number of surveyors, number of transects, number and locations of automated detectors is an important skill that should be assessed at all levels.
- Although it may seem responsible to do so, the variability of such surveys will be too onerous for not only Natural England to assess, but for any surveyor to demonstrate effectively and standards consistently to a body that will make the assessment. It is open to misuse and the complexity of standardisation above what already exists would not add significant benefits to the desired outcome - the conservation of bats. Systemise the approach, assess the outcome.

- They need to be able to carry out surveys correctly with the correct methodology and assessment of the site/habitat etc. Roosts could potentially be missed or assessed incorrectly if not.
- I think this should be dealt with separately as it raises different issues.
- I think that having first hand knowledge of the site during surveys improves awareness and offers insight required for license.
- I presume this is covered under tech competency 1? A mitigation plan should preferably be developed by the consultant who obtains the baseline survey information on which the plan is based.
- Relevant where loss of habitat is also needing mitigation not just roost loss.
- Activity surveys are bread and butter stuff in the bat survey world really.
- You shouldn't have to define this level of competency to walk a transect with a bat detector. Your own in-house QA should cover that.
- We always make a note about foraging and commuting activity when conducting emergence/re-entry surveys, so would be able to identify if an site was important for foraging or commuting bats.
- This is absurd.
- Designing and executing a proper survey is fundamental to all bat mitigation work. If you do not include it as part of earned recognition then you're overlooking the entire basis for collecting evidence for working on a protected species. I am surprised this question has even been asked. Perhaps I've misunderstood it. Survey 100% has to be part of the scheme as this is where 'opportunistic' consultants cut corners.
- All ecologists applying for the ER scheme should have extensive experience in activity surveys and therefore be accomplished, many ecologist up north would not have experience undertaking activity surveys for rarer species and should not be punished for this if they fully understand the ecology of the species.
- To enable the ecologist to understand how the data was gathered.
- Activity surveys aren’t really relevant to mitigation licensing for roost loss, and in any case are covered to an extent by competencies for survey methods and habitat evaluation.
- I think for the purpose of applying for a mitigation licence the important thing is to be able decide how to appropriately undertake the activity survey, identify any limitations and correctly interpret the activity survey results. This falls under other existing competencies within the framework and therefore by adding it to the competency framework you will essentially be repeating the same points made under other competencies.
- Activity surveys are an important source of data for determining the status of a site for bats. It is often the case that inexperienced surveyors are used for this activity, which can compromise the accuracy of the assessment results.
- Although it's very likely that all ecologists applying for accreditation would have regular experience of undertaking activity surveys, it shouldn't be a requirement for mitigation licensing.
- Whilst effects foraging and commuting might not be licensable activities, the impacts on foraging bats can be addressed within the licence. The ecologist at level 1 should not need to know the details of rarer bats, but they should be able to relate loss of more common species' foraging/commuting habitat to impacts on a roost. Therefore they should at least be able to demonstrate understanding of when an activity survey should be done and what it will involve.
- Because all decisions on evaluation and mitigation and compensation are based on the quality of the field data. Roosts dont exist in isolation. There are many people walking around with a detector recording bats with no understanding whatsoever (analysis done by someone else weeks later).
- So much rests on the results of the activity survey that it should be a basic requisite that peoples' skills are tested in this arena.
- Other staff may collect activity data.
- The poor guidance for analysis of bat foraging and commuting habitat is a real detriment to bat conservation. This is particularly true for significant infrastructure schemes, especially road. There needs to be a standard document with at least some examples on how to undertake proper assessments for different schemes, housing, large housing, linear infrastructure etc. All assessment is meaningless if there isn't appropriate compensation/ mitigation. I have seen very few schemes which properly target replacing species specific foraging habitat after it is removed. The defra metric seems to be a good way to providing landscape scale habitat replacment but as different bat species have very different foraging

and commuting requirements creating appropriate habitat is a must. Licencing this needs proper guidance and the use of earned recognition for this seems an appropriate way to go. Road schemes especially have a huge impact on breaking up habitats. Noise and lighting are significant, breaking up habitats and reducing bat species diversity over large areas. These significant impacts are hardly licenced or only discussed as a side thought when alongside roost destruction in traditional licencing. It is rare to clearly see the detrimental impacts of lighting or noise, so ecologists would not apply for licences and received no external review on whether mitigation was sufficent. ES documents submitted and assessed years before construction is undertaken is the only route towards real accountability. Based on recent scientific papers, I doubt the impacts of noise and light have been sufficiently accounted for on big schemes. We need to licence these more complex impacts as much as we licence for the destruction of roosts, the impacts are surely equally important considering the amount our bat species move between seasons. If it there is a movement towards licencing these impacts, they could be exposed and proper robust mitigation can be put in place. The transition to earned recognition where people with expertise of bats are making the assessments seems like a good opportunity to start licencing and mitigation for these impacts.

- I'm not sure I understand this question - I think this is already included under the Tech 1 - Habitat/species survey design, planning and fieldwork (which presumably must include knowledge of activity surveys). All consultants must be able to demonstrate sound knowledge and understanding of activity survey types and when and where each is appropriate to use. This would best be demonstrated through scenario style exam questions.
- Having a full understanding of the requirement for activity surveys will be picked up by requirements of Tech 1, 3, 4 & 6.
- I don't understand this Q. Activity surveys = dusks & pre-dawns to us. But >5 per year = tops! when we each do 40 plus a year. I cannot find your definition.
- I feel that this would be part of the survey design planning and field work competency. As if someone didn't know how to correctly undertake activity surveys how could they check that surveys were carried out correctly to gain the necessary information.
- Seems a bit pointless as surely everyone does these. A lot of the more senior staff won't be doing many of the actual surveys themselves - it's interpreting the data that is the most important skill.
- It looks like Tech 2 and Tech 3 covers this already, so I think tehse are already included.
- Not often necessary for a licence situation.
- These form a major part of the licence assessments. Without various levels of these skills it would be hard to provide the information required.
- I am presuming activity surveys are referring to emergence and re-entry and transects? yes survey capability, design and timings is essential and proficiency in these with experience of the roosts at the different levels. Often surveyors claim to have ample experience at emergence and re-entry survey but in fact numerous surveys have been undertaken but no bats or roosts ever found. Although negative resutls are important and great as no impact upon bats. It does not prove experience roost assessment during activity surveys.
- Carrying out and interpreting an adequate activity survey is fundamental to understanding the bats of the site, impacts and mitigation required. Knowledge of survey methods, techniques and interpretation also helps the ecologist to determine the appropriate level of survey for the site.
- Assessments can only be as reliable and accurate as the survey work they are based upon. We are very selective over which surveyors we use for our sites and only use those we can trust to provide accurate and reliable information. We have found that some inexperienced surveyors can be just as good, if not better, than some licensed bat ecologists.
- It should be demonstrated that people understand the guidelines and undertake the correct activity surveys and correctly for each situation.
- Without being competent in activity surveys it is difficult to provide suitable mitigation of you are applying for a licence. You should not just rely on other surveyors results unless you have total faith in their competency and results etc.
- Activity surveys are the firmest entry route into the bat work and ecology sectors. I think they should be excluded from the competencies framework to allow for the less experienced to gain experience.
- To help standardise data collection to be used to inform efficacy of mitigation.

- The focus for many in terms of mitigation is the structural elements of roosts and surrounding habitat is often forgotten of given less consideration. Although there are some elements in current licensing systems about this it is not given equal weight in assessment. Activity survey data can be useful for identifying other important ecological elements supporting the roost(s) that should be considered. Davidson-Watts (2007) (presented to National Bat Conference in 2006) showed that habitat features around the roost were more important than structural attributes for soprano and common pipistrelles, yet licensing focusses hugely on design of bat roost structures and alot of effort goes into this disproportionately.
- Activity surveys should be included in the framework to add more transparency and competence to class license holders to help prevent survey error.
- How would they go about assessing this, if you didn't happen to see a bat because of many different reasons then you would fail? I think the important aspect for gaining accreditation for mitigation licences is the ability to make an overall assessment on the impact of the works, and therefore missing a bat on an activity survey would potentially rule out some very competent ecologists by chance. The only sensible way to do this would be to organise activity surveys e.g. making assessments where is best to place surveyors, when and where to use cameras etc, but would be difficult to assess as lots of different strategies provide the same outcome.
- The ER system will increasingly lead to 'appropriately accredited specialists' being brought in on project for level 2 and especially level 3 scenarios. There are not likely to be many people able to demonstrate the skills and experience to qualify at this level (especially level 3). Insisting that people operating at this level are involved in the activity surveys will introduce delay in the system, when it is increasingly easy to verify acoustic and thermal/IR records, and often confirm during a daytime or single visit by a more experienced person. Also, verifying people's ability at undertaking emergence surveys is very difficult. Did you see that bat come out?! Survey aides such as thermal or IR cameras should increasingly be used which will help to minimise the effective of human error and ineffectiveness.
- Surveys (collecting and interpreting the data) are a key component of licensing - it would be a very strange scenario where somewhere was considered adequately experienced to hold a mitigation licence (and design and implement mitigation) but not capable of carrying out the surveys themselves... Currently it is the other way around i.e. many ecologists can carry out activity surveys (to varying degrees of competence), but fewer have the experience, references etc needed to be able to the Named Ecologist on a mitigation licence... and the knowledge of how to design and implement appropriate and effective mitigation etc.
- Am I missing something or are they not included under Tech 1?
- If you are looking at roosts near national or internationally important sites for bats then they will need to be included. For Annex 2 species or maternity roosts it is important to know how the bats are using the landscape around the roost site.
- The applicant's reference should be able to vouch for their competence and this should be sufficient.
- I think that the person submitting the licence application should also be involved with the field activity surveys to fully understand the site and not just be collecting the data from other surveyors.
- Yes but am not sure how you would do this.
- Without having the correct level of survey none of your assumptions can be considered valid so need to ensure the base data is collected correctly to allow an accuarate evaluation is carried out.
- To make it mandatory may exclude some very experienced bat workers from the scheme who have perhaps only have exposure to projects which did not necessitate such survey work and therefore don’t routinely complete activity surveys. However, there will be schemes in my opinion at all levels that would benefit from registered consultants having skill in this area and being able to utilise this tool effectively to inform impact assessment and mitigation design. Whilst it is acknowledged this is unlikely in most cases to be necessary for schemes at level 1 in respect of low conservation significance roosts for Cpip and Spip who are readily adapted to most landscapes and lighting, BLE is a light averse species, often favouring specific flight lines and a woodland specialist. It is therefore essential NE can trust Registered consultants at this level to be able to design implement and analyse data from activity surveys to maximise chances of effective mitigation and compensation and ultimately maintained roost

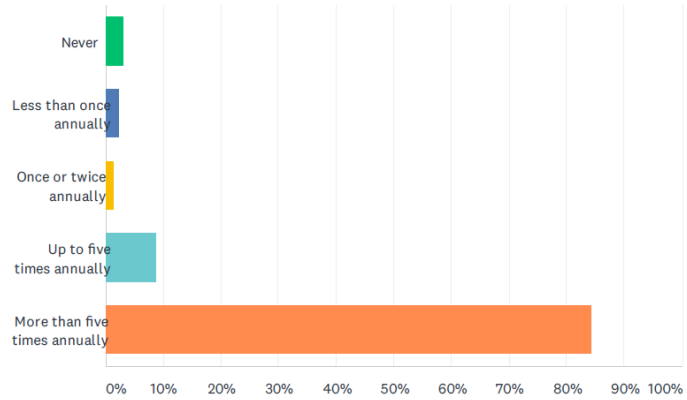
use after works are complete in contribution to the maintained FCS of the species in the locality. Someone else may look at this comment and say its just one BLE roost for low numbers but if this scheme is to replace the current licensing system eventually the cumulative effect of RC's not being able to adequately design, carry out and interpret activity survey data could in time have implications for this species and any of those other less common species at level 2/3 which need robust understanding of landscape requirements for their FCS.

- Design and carrying out of activity surveys, particularly at advanced levels, requires that people have a thorough understanding not just of methods but their appropriateness, relative advantages and shortcomings, the ability to adapt to circumstances. Surveying is a basic building block of gaining experience and understanding.
- Important skill for catergorising bat roosts and foundation of bat work.
- Largely covered by Tech 1 and 2. I can't see a good reason for including them separately.
- I touched on this above, but believe the skill sets for surveying competencies should be broken down to ensure confidence in each of the following; Scoping Surveys (buildings), Scoping Surveys (Trees) Emergence Survey (buildings), Emergence Survey (trees), activity surveys (walked transect), activity surveys (statics detectors), sonogram analysis.
- Activity surveys (transects and automated detector deployment) only partly relevant to mitigation licensing.
- I'm not sure how you would assess an applicant's skills when undertaking activity surveys - a good understanding of the Guidelines and best practice should be enough.
- Good knowledge of how bats use surrounding area is likely to provide knowledge of why a roost has been chosen. I think this would be crucial for mitigation for roosts that are considered to be of high conservation value.
- I am not sure if we are talking about dusk/dawn emergence surveys or what I would consider to be transect surveys. As you don't need a licence to undertaken activity surveys (transects) and these are not always relevant to roosts then I don't think they need to be included. If we mean dusk/dawn surveys which we use to identify roosts - then yes I think they should be included as they are very important.
- An understanding of designing, implementing and analysing bat activity surveys is key to being a well rounded bat worker however it is probably more important as you work on higher conservation significance roosts, so I dont think a thorough understanding is necessarily required for Level 1.
- Mitigation and surveying may not be the same; however to have an understanding of how a site is used by bats, foraging and roosting etc you need to understand how bats use the site this realistically can only be gained from extensive survey works.
- Understanding of bat activity and carrying out surveys provides valuable information relating to likely impacts on bats so should be considered.
- Gauging activity survey experience is tricky given even the experience on one site even can change vastly between people. I feel they either shouldn't be on or should be a the more basic end of the framework. Having it on would encourage record keeping and allow more junior staff to build good experience toward the ER scheme.
- I think that an understanding of how bats use the landscape commuting to/from roost sites is important, particularly for less light-tolerant species.
- Potentially the person designing the activity surveys should be accredited, but it would not be practicable for surveyors to need accreditation. For example, those with level 3 accreditation are likely to be more senior members of staff that do not have time to under take 3/4 activity surveys every week of the field season, like junior staff do.
- Depends upon the circumstances. Sometomes they are necessary at all levels sometimes they may not be necessary at all levels.
- In the sense that you should be aware of best practice, and that suitable level of survey has been undertaken to inform the impact assessment leading into the developement/mitigation licence.

- Understanding and measuring activity can be fundamental to assessing impacts, rather than looking at a structure or tree in isolation. Assessing this would also weed out poor professional conduct where activity techniques for the purposes of attempting to carry out emergence/return survey work. Example of this would be emergence surveys being carried out by circling a building during an emergence survey rather than using more surveyors or surveillance equipment such as IR or thermal to allow a greater area to be covered.
- I can see potential for the ER to be a senior member of the team who has the role of licenced work in the team, and the surveys being condcuted by entry level and team leader ecologists.
- Mitigation licenses apply to bats in their roosts, which are (for the most part) identified and evaluated through emergence/re-entry surveys. The aim of activity surveys is generally to identify important foraging/commuting habitat, the protection of which isn't really dealt with under the licensing system.
- I thought the focus was on mitigation licencing at this stage? maybe somthing to include in time to replace the survey licences?
- Would this suggest high impact schemes that don't affect a roost should be licensable (loss of foraging, hedgerows, light spill etc).
- Inappropriate activity surveys delivering insufficient cover of the site can lead to gaps in the knowledge of how the site is being used by bats.
- Bat activity is important to understand the bat species behaviour and to inform where flight paths are to design mitigation lighting schemes.
- I feel like it should be covered under Tech 1.
- I hadn't thought of this aspect until flagged in this question, but there are so many poorly designed activity surveys and the collection of data is paramount to assessing impact s I would definitely expect to see it as a competence.
- An ecologist needs to show that they understand what surveys are required and to complete them competently to confirm he presence or absence of roosting bats on any site where bat roost potential has been identified.
- Activity surveys are an important part to understanding bat ecology.
- Activity surveys are used for a whole range of schemes, from assessing the impact of potential lighting additions to schemes which require removal of high numbers of trees, but in general where activity surveys are required this needs a higher level of competency in order to assess the habitat, activity levels and potential impacts.
- Probably only key for particularly complex sites, or sites with Annex II species present/adjacent.
- Survey design and implementation is important to appropriately site compensatory roosts, establish regularly used flight lines and foraging areas and is vital to the success of mitigation in many cases.
- Foraging and commuting habitats aren't licensable and unless this changes it would not reflect the current guidelines and policies. Improved lighting design and creation of dark corridors etc should be designed during the planning application stage and mechanisms introduced to audit this following the completion of the development (this is true for all bio net gain, compensation and enhancement).
- Activity surveys are frequently poorly applied and the results undervalued. Clear objectives need to be set and the method and intensity adjusted to make sure that useable and informative data is collected. Roost function, especially with respect to those sites of high conservation important is dependent upon factors which can only be accurately determined using well considered and effective targetted activity surveys.

Question 37. How often do you carry out sonogram analysis as part of your work?

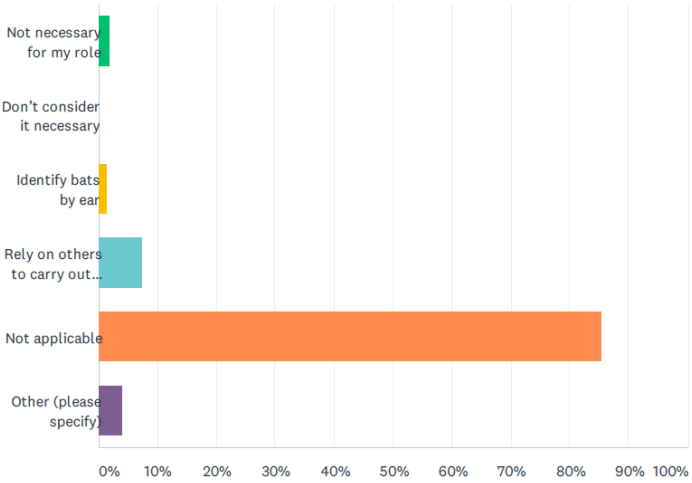
Answered: 218 Skipped: 34



ANSWER CHOICES	RESPONSES	
Never	3.21%	7
Less than once annually	2.29%	5
Once or twice annually	1.38%	3
Up to five times annually	8.72%	19
More than five times annually	84.40%	184
TOTAL		218

Question 38. If you don't carry out sonogram analysis, why is that?

Answered: 206 Skipped: 46



ANSWER CHOICES	RESPONSES	
Not necessary for my role	1.94%	4
Don't consider it necessary	0.00%	0
Identify bats by ear	1.46%	3
Rely on others to carry out this work	7.28%	15
Not applicable	85.44%	176
Other (please specify)	3.88%	8
TOTAL		206

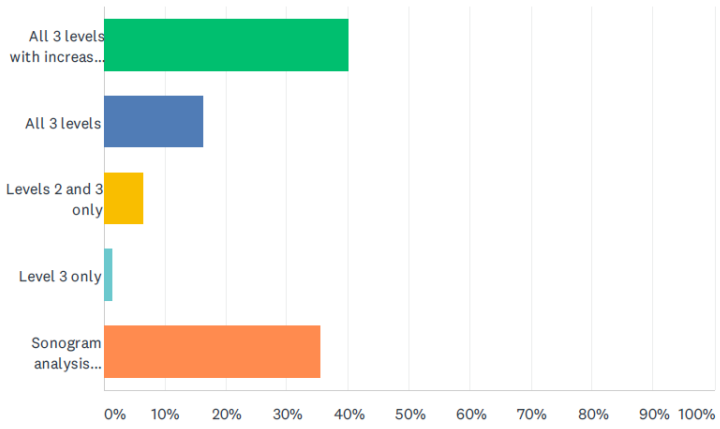
8 respondents ticked the 'Other' option and their responses are provided in full below.

This raw data has not been amended in any way and in some cases represents a misunderstanding or misconception on the part of the respondent – the comments should be read with this in mind.

- This is a basic and essential skill and requirement.
- I struggle with it.
- Sonogram analysis is not always conclusive the more you examine bat sound you realise the complexity of calls and more calls ie social calls are being found that overlap with calls of rarer species.
- Sometimes no involvement only really high level checks of data.
- Depends on workload as to who does the data analysis of large sets. Pick the best person for the job, not necessarily the surveyor as some people have a natural aptitude at call analysis.
- Others do do some of my analysis when I'm filling in the paperwork for licence applications, writing reports etc but I still do some.
- I always review the analysis, but always relay on others to do the main analysis. It is extremely time consuming and not realistic for ecologists operating at the higher competency levels to lots of activity surveys or sound analysis (and it is usually done by people at a lower pay grade so would inflate costs significantly to enforce more senior staff doing this!). It should of course always be reviewed by the named ecologist.
- I undertake reviews as quality assurance of company sonogram analysis. Others run checks on my own analysis. We back up all field survey effort with recordings to allow later analysis in the office. A cross reference that species weren't missed in the field. We/I also undertaken static monitoring associated with transect surveys, so the requirement for analysis is there.

Question 39. Should sonogram analysis be included in the Competency Framework for the ER scheme (and therefore be assessed) and to what level?

Answered: 214 Skipped: 38



ANSWER CHOICES	RESPONSES	
All 3 levels with increasing numbers of species identified	40.19%	86
All 3 levels	16.36%	35
Levels 2 and 3 only	6.54%	14
Level 3 only	1.40%	3
Sonogram analysis shouldn't be included	35.51%	76
TOTAL		214

150 comments were received and are provided in full below.

This raw data has not been amended in any way and in some cases represents a misunderstanding or misconception on the part of the respondent – the comments should be read with this in mind.

- Its a core component of bat work so i guess it should be included at all levels.
- There are no accurate standards in this field.
- It's a useful skill and can sometimes provide useful information, but it's not always necessary or relevant and therefore, if it were included, it should not be mandatory at any level.
- Sonogram analysis is very important in order to obtain robust and reliable data on which to base mitigation. However, it should be noted that it is not always possible to reliably identify bats to species-level from sonograms alone e.g. some Myotis species. I am aware of bat consultants who still do not even use detectors that record bat calls, yet alone do sonogram analysis as part of the survey/reporting.
- In most cases, consultants do not get to trap bats and therefore sonogram analysis is a vital way of determining species. In some cases, I have only been able for secure mitigation licenses for whiskered/brandt's by evidencing sonograms. Subsequent mist netting has then confirmed brandt's bat. The same can be said for natterer's which have a distinctive social call which is often enough to separate them from other similar myotis species.
- A required basic skill, and would avoid reliance on automated call analysis (which appears to be increasingly common).
- Whilst sonogram analysis is an important tool, the importance of this is magnified when dealing with more cryptic species and therefore covered at a higher level of competency.
- Other information is also required to identify roost type and status for licences.
- Sonogram analysis is good practice for nocturnal survey and provides evidence of species and number of species present.
- This is the same as activity surveys, you should be able to do this so you have experience and can check that surveys and hence species present are correct.
- Although I don't know of any bat ecologists that are involved in bat mitigation that also don't know sonogram analysis. I think an ecologist is capable of designing appropriate mitigation without experience of sonogram analysis, provided another team member does have the experience.
- As above - no need for a box ticking exercise. Perhaps have a voluntary practical accreditation scheme like FISC instead?
- Part of identifying bat species present when bats are not seen in the roost/caught. If remote detectors used only way to access results.
- Very important skill to have at all levels. Automated species identification does not work.
- It is clearly a key skill to have, but sonogram analysis is itself limited in its purpose to identify roosts in some instances, for instance to differentiate with confidence the various Myotis species, or long-eared species, so I am not sure having a separate competency for it is necessary.
- This is crucial to determine species and therefore the level of ER required.
- To back up decision making.
- It may not be necessary to have expertise in this if this expertise can be provided by other suitably qualified persons to inform mitigation design. It would probably be beneficial, however, to have a level of understanding.
- Some training and knowledge should be included in the Competency Framework, and if this is not possible, as you need to know what level/species you are mitigating for. If a ER applicant can not undertake sonogram analysis then they need to confirm who will undertake this element of the work and prove their competence.
- Sonogram analysis is an integral part of the identification necessary to establish bat roosts within structures and therefore has a critical role in determining impact assessment and mitigation for licensing.
- Sonogram analysis is a key component of bat identification.
- Not if other specialists available within organisaiton to carry out this work. time consuming.

- Its very important to confidently identify sonograms of bat species, particularly emerging or entering a roost.
- This is an important part of species identification. Technology has improved significantly in the last 10 years. Surveyors should be aware of the limitations of sonogram analysis / equipment used to survey bats.
- Sonogram analysis is carried out by field ecologists who have been trained by senior members of staff, and their work is checked to ensure accuracy. They do not need to be assessed under a competency framework to do this. For senior staff applying for licences, they have years of experience in sonogram analysis and I don't think adding this layer of paperwork and admin now would help at all.
- Sonogram analysis can vary so much depending on the surveyor assessing it (less of a science) I think setting a standard is very important.
- The licence holder does not need to be competent in this, other colleagues within the team who may have these skills undertaking the sonogram analysis may do this work on behalf of the firm and the licence holder. Don't forget that licence applications are usually a team-effort and you need to put some trust in your existing CIEEM membership that they are upholding the professional code of conduct.
- Again, if you can't undertake sonogram analysis competently for a range of species, then you are likely working from substandard data. It's easy enough to learn how to do this even if you're unlikely to come across some of the species. BCT/CIEEM/NE could very simply provide an online training course for this aspect.
- Sonogram analysis is increasingly automated so perhaps not that relevant to assess for competency.
- As most id is undertaken via acoustic analysis, why would it not be a competence.
- Sonogram analysis is an important part of assessing what species utilise a site.
- In some organisations high level sonogram analysis is undertaken by highly specialist surveyors and may not be accessible to all.
- I believe it should be for levels 2 and 3 only as these accreditation levels cover medium and high risk sites.
- I would say that a large number of bat licences are based on species identification from sonogram analysis so it seems a fundamental part of the process. It would be logical that the ecologist must be able to recognise all species and not just the common species. That said it would be important to recognise what a nightmare this can sometimes be with the variability in the calls. Where I have a particularly difficult call I always look for second opinions but recognise that option is not always available to everyone.
- Being able to analyse sonograms is an additional benefit for bat identification. I think that if it is to be included then all levels should be subject to assessment.
- The problem with these questions is that there is no detail about how things would be assessed so it is very difficult to give an accurate answer. Do I think that standards should be high for sonogram analysis and that there are varying levels of competency? Yes. But equally I do not think that sonogram analysis is an exact science in many cases and even the most experienced bat ecologists may argue about for instance high pitch Noctules/Leislers. So how can something like this be assessed? It's a potentially dangerous path.
- A separate assessment/test would be useful though.
- Experience is required for the rarer species.
- Because data/reports can show analysis results, if you include sonagram analysis assessment then you need to include heterodyne, flight recognition and behaviour knowledge assessment.
- As previously stated sonogram analysis can be fraught with complications.
- Its irrelevant to mitigation skills.
- Jeepers, there isn’t any agreement in sonogram analysis as it is! How would you assess it? By auto ID hahaha

- In order to be confident what species are on the site and carry out impact assessment and design appropriate mitigation, Consultants need to either undertake the species ID themselves for a site, or, have the skills to be able to audit/check the ID carried out by others.
- I think what-ever form of competency is put in place the limitations of sonogram analysis need to be recognised. Whilst some species can be reliably differentiated there are several which are better identified to group only. Whilst it is a skill that surveyors should have, I don't think it is of overriding importance and would, for Myotis species etc, typically represent only a poor basis for determining a roost to species level. With the advent of automatic identification interpretation of a computer's best guess of a species based on knowledge of species' distribution within the UK (and the bias' of that programme towards one species or another) also needs to be considered.
- Really need to ensure that the distribution of bat species is considered. Otherwise risk of all level 3 accredited surveyors being based in the south of England - i think this is covered but want to flag it up. It's also going to be difficult to achieve demonstration of some competency levels if there is a time period limit applied as it depends what comes through the door in terms of projects. Ecologists should be able to challenge themselves and have confidence to try something new (whilst working under guidelines / best practice) without being fearful of CIEEM's complaint procedure etc. I recognise that in the webinar Sally Hayns indicated that this was not the main role but I can foresee difficulties with ecologists being over critical of others work to the point where it is not good for bats or the ecological profession.
- Ecologists should be able to correctly identify sonograms as part of the Tech2 species identification competency.
- Use of modern survey techniques and analysis tools are important in accurate species identification (and forms a key part of Tech 2 Competency). Accurate species ID is fundamental to determining the correct mitigation.
- This is a non-licensable activity, and so should be dealt with separately.
- I think if it is the only form of species ID then they should be competent in using this method.
- Again, this is an inherent part of assessing a site and its importance to bats. This can also be critical to assessing behavour on site.
- Sonogram analysis is an important part of interpreting results/survey data.
- Advanced skills arent generally needed as most surveys for any development need to determine ....ARE bats Present ? yes or No? if so bat guano is sent off for DNA analysis. Some ecologists are skilled at radio tagging, trapping etc. Basic sonogram analysis will tell you species and if on a Large Scheme such as a road or railway development then perhaps full spectrum recorders would give all bat species a chance of being detected....important if there's a particularly scarce species suspected.
- Whenever there is uncertainty over analysis you can discuss with others to reach a reasonable conclusion - the assessment process risks becoming like an exam (with some better at exams than others).
- As with surveys, this may be undertaken by teams of ecologists but appropriate competence is required for rare species to establish limits of equipment and avoid reliance on autio ID.
- In the field/ static detection becoming an increasing part of species identification and as a result needs to be accounted for in the skills relating to competence.
- Analysys is necessary for species ID and activity level assessments, for manned and remote recorded activity surveys and are an intergral, essential part of the survey and assessment process.
- This is another area with a huge range of skills and no way of measuring competence.
- This is part of the pre-licensable works and overlooked by the licensed bat ecologist.
- Access to staff who specialize in anabat data assessment for example can help licence holders make a decision when they personally do not have the time to wade through several thousand individual registrations. When a relevant registration is recorded it is then brought to the attention of the licencing ecologist.

- I think all accredited ecologists should at least have a basic (if not competent) understanding of sonogram analysis in order to demonstrate a due diligence in bat species identification. There are frequently times when bats are not accessible for identification from morphological features or it is not possible to collect faecal samples for DNA analysis. Therefore, individuals accredited at any level of the licence need to be competent at identification of bats from sonograms. The use of automated ID programmes can be helpful, but cannot always be relied upon and therefore manual checks of sonograms can be necessary. ID from sonograms is not an exact science, but accredited ecologists should at least be able to justify their identification based on certain call parameters.
- All bat ecologists who wish to hold a survey or mitigation licence should be competent at undertaking sound analysis to ensure they have correctly identified the species and roost which will be impacted.
- Wouldnt this be more applicable to a survey licence accreditation scheme rather than mitigation licensing. If it was decided to include it within this scheme then it should be for all 3 levels.
- Should be required for species that are more difficult to identify in the field with handheld detectors, eg myotis.
- You might come across a group 3 species when dealing with a level 1 project, so I think it is important to be able to identify all species at all levels.
- The ecologist must be allowed to interpret results and data relevant to the site using appropriate equipment which he is competent and familiar with.
- Not sure about this, it is something that a non-bat licensed person can be taught. It is not critical in many areas of bat survey work as most bat calls are recorded and can be analysed post survey and this skill can be outsourced to other competent people and often is in my experience when multiple large data sets need to be analysed. It is important of course that identification of bat sonograms is accurate to ensure robust assessments and reporting, but not sure if this belongs in the ER scheme.
- Although there is some case to be made for inclusion of Level 1 for BLE and confusion over GLE and some Myotis species, sonogram analysis is ONE element of assessment and a tool to identification and should NOT be the sole reason for assessment and determination. Collectively, sonogram analysis coupled with other data gathered should be used to make an assessment of impacts. Highlight that where species identification may be difficult to determine, then the combination of different techniques will be taken into consideration depending on the Level which the potential species belongs to.
- I think it should to some degree but obviously (like with bats generally) there is still a lot of unknown and so not always possible to define a species down to a call but ecologists should be able to analyse calls to some degree. This could be considered within a framework though.
- Yes its important to ensure baseline is correct, but I have a team of experts who do this so I infrequently delve into it. I dont think its necessrily relevent as it doesnt impact actual on site mitigation and licensing. but agree its part of species ID.
- It is likely that those with the level of experience for accreditation maybe simply overseeing analysis being undertaken by others.
- This is already included in Tech 2 Species ID.
- It is technical and as long as it is done competently does not necessarily impact license.
- Essential for baseline survey.
- To be sure rarer species are not being missed or mis-identified.
- If species id is reliant on the echolocation call of the bat emerging then people must be competent in assessing this.
- As above, this should be done in house under QA and best person picked to analyse the data, irrespective of whether they hold a licence or not. Not all naturalists/ecologists are licensed.
- I don't do as much sonogram analysis now I'm a senior ecologist, this is usually done by the more junior members of the team. However, if any sonograms of rare species or sonograms that are unusual are identified, then I always review them.

- Absurd.
- I think it should - it's a key part of 'modern' bat survey work - we need to get consultants used to checking out the unusual and misleading calls they record and make it part of their regular work. We need to move beyond the days of relying on a Duet and reports with 'there were common pips, a noctule flew over and there was a Myotis pass' Sound analysis may not add much to many surveys, but we've really got to move with the times - it's not as if the kit is expensive.
- Even if not undertaking a lot of sonogram analysis as part of your role you should be able to demonstrate a good understanding of it.
- Already included in Tech 2.
- Its possible to rely on others to ID bats from sonograms without impairing ability to assess the status/impacts to bats so long as the ecologist understands the parameters within which the data was gathered and limitations to sonogram ID.
- Arguably it shouldn't be included at all because there are species for which it can't be relied upon (e.g. Myotis) but if it is to be included I think Level 1 should be required to demonstrate capability with relevant group1/2 species.
- To be confident with which species have been recorded at the site, and therefore factored into mitigation you need to be able to distinguish the bat species by sonogram (where possible). If not you are relying on evidence obtained from others and therefore may not come to the correct conclusion about which species will be impacted on site.
- This is a mitigation licence not a survey method licence. Sonogram analysis should be incorporated in to survey licences.
- Sonogram analysis is highly subjective and relies heavily on professional experience and judgement. Some form of peer review would be beneficial.
- Sonogram analysis is not a required part of bat mitigation work.
- The ecologist should be able to recognise all species/species groups relevant to their licence, to understand what bats are present and how they use the habitat.
- Its surprising how many people do not understand the basic principles of sound and therefore what they are listening to (pip off frequency or a myotis) sonogram analysis taught well can be a significant learning aid
- There are so many programmes I'm not sure how realistic this is. This is something that is often done by people other than the ecologist in the field, due to the time requirement needed, and some companies have specific people to do this who don't necessarily have or need bat licences, or even go out in the field as it's almost becoming a skill set in itself.
- Sonogram analysis is a specialist skill for a complete understanding it takes much training and time. People may not need to be fully versed in every species to be able to mitigate for the roost of a common species but they should have a basic understanding. Those with earned recognition should be able to identify the sonograms of those species they are working with but not necessarily more complex calls or those of other species Echolocation feeds into many aspects of the ecology of different bat species, flight and foraging behaviour, prey items, body size and this knowledge. People should have a decent understanding for for any projects asssessing the impacts on foraging grounds or commuting routes.
- My thoughts on this and the above question are you need to decide if you are doing this ER route for personal survey licences or just mitigation licences - for example if you change the survey licence process to something similar to this ER scheme where people interview, are tested and present a portfolio - you would not need to include sound analysis and activity surveys in the ER mitigation scheme because you would know anyone with a level 2 bat survey licence has satisfied these in obtaining the survey licence. Whether you include activity surveys or sonogram analysis as competencies in the ER mitigation scheme should ultimately come down to how confident NE is in its current two reference system for survey licences - if you are not confident that a sufficient or consistent standard of bat worker is being produced by this system then yes the ER mitigation framework must include things like sonogram analysis and activity surveys. If you are confident that the current system produces a consistent high standard of bat worker you do not need these types of activity included on the ER mitigation scheme competencies (as long as you are making a level 2 survey licence an essential criteria to enter the scheme).

- I think ecologists should have a basic knowledge of sonograms but given that technology changes so quickly and more senior ecologists generally move away from reviewing this type/quantity of data I dont feel it would reflect someone's ability/competency to hold a licence.
- I hesitated before ticking. If you've ever seen when folks put sonograms on facebook or at a conference everyone disagrees half the time, not such which Myotis for example but also suggesting several other species & these are the well thought of folks who are prepared to put their heads above the parapet so I'm yet to be convinced just how good it is.
- This should be covered in species identification competency. There are times when sonograms is the only evidence you may have of a bat roost and if you were not able to identify these correctly how could you know what species you were dealing with.
- Again, it is the interpretation of the data that is more important than the ability to do it (although being able to verify/ check the data is obviously very beneficial).
- This is very difficult as level 2 and 3 species may be difficult to identify through sonogram analysis. Some level of understanding of sonogram analysis is essential however, as this is how the majority of ecologists make the initial bat identifictaion. It could be that the sonogram ID leads on to DNA tests for example.
- An ecologist working with bats and with cieem membership should be trusted to undertake sonogram analysis.
- As with DNA analysis of droppings, this forms a critical part of bat identification.
- Yes to prove competency and understanding. As my role of head of ecology for an eco team means I rarely carry out sonogram analysis, I have done in the past and it is important skill.
- Correct identification of bats is necessary to determine appropriate mitigation.
- Sonogram analysis can easily be misinterpreted and bats either missed completely or the wrong species thought to be roosting within a building/tree. Unless there is species confirmation through visual identification or DNA analysis of droppings, using sonograms for identification forms the basis of most assessments. If this information is incorrect, the assessment and conservation status of the roost may also be incorrect.
- You need to be assured that people are accurately identifying species as if they have identified say 6 species being present and applying for a lower level licence (6 or less species) but there are 7 present but werent correctly identified, this would be misleading.
- There are too many surveyors using low quality detectors and no recorders who are used by consultancies because they are cheap to employ. There are also too many surveyors relying on auto id in the field without checking the recordings on a pc. Although sonograms do not always prove conclusively what is found the surveyor need to have looked at a sonogram to at least check auto id and the call recorded.
- Isn't this part of core training for a survey licence? At the point of applying for a mitigation licence, sonogram analysis should have been performed and evaluated and fed into the mitigation design.
- This is an important skill especially if obtaining a licence for a particular species, however there needs to be some real limits applied here to this approach, as species ID is (despite the great sales pitches from those selling classifiers) not the silver bullet. Where I have concerns is that even some of the basics are being lost due to automation. As a review of some very experienced subbies, some real trouble with differentiating out Myotis and say common pips in cluttered habitats (even though FMIN may be quite obvious), and also Nyctalus is quite concerning. The Isle of Wight has never had a confirmed Leisler's in the hand. Lots and lots of trapping, the IOW bat hospital has had just about everything you can get in Northern and some parts of southern Europe (i.e. Freetail), but the amount of reports I see from consultants referring to Leisler's on the IOW from bat activity (when its probably Noctules nearer clutter etc) is a problem and false positive are as equally as bad as missing things. So yes keen to see this included, even it the competence testing in this area covers what you can and can't do with such surveys (people understand the limitations)- saw one report in Sussex referring to greater noctule.....sorry for the semi-rant. Just wanted to provide some evidence of the issue :-).

- Time and time again I have looked at raw survey recordings from others which they have not interpreted the data correctly, I have had noctules recorded when it was a freight train, zips as natterer's, etc. Mainly because of the use of auto-id software and inexperience.
- This should be part of the Class Licence assessment, not the ability to apply for a mitigation licence.
- It would significantly complicate the assessment process, and any acoustic ID should be supported by physical evidence as much as possible anyway. To put it another way, if you misidentify a whiskered as a Natterer's, would it affect the mitigation? No (we don't have any information on differing mitigation requirement in the myotis), and DNA would correct the analysis anyway.
- Most now use full spectrum, recording, detectors - with any bat ID uncertainties checked/verified on computer later - so an essential skill now (in addition to ID by ear still being a very valuable skill - to ID species 'on the fly' without the distraction of looking at a screen instead of the building/tree you are supposed to be surveying!)
- It could/would get very complicated as you would need to differentiate between ZC/FD\TX\FS analysis. While many of the skills are transferable (eg understanding the nature of bat calls, the characteristics of species and the variability/plasticity of bat calls in general) as each recording technique uses different recording methods you would need to take each into account. There is also the issue of determining which method works best in each situation.
- Sonogram analysis is vital whatever the level as bat echolocation calls are inevitably missed during field surveys.
- The applicant's reference should be able to vouch for their competence and this should be sufficient.
- To ensure accurate identification of species in the event of a bat not being seen closely enough to enable identification.
- No because not everyone does it themselves, which is fine. If you do a lot of surveys, then you don't have time to analyse. I usually do my own, but do send my recordings to colleagues to check.
- Don't know.
- This should be provided where species is confirmed on the calls so these should be provided to ensure that the decision basis is accurate. If an other identification method is carried out ie caught with static net / harp trap or eDNA sonograms are not required.
- A major component in species identification is the utilisation of sonogram analysis. Granted it has limited application in terms of identifying some bats to species level, but it is one of the essential tool in the armory of an experienced bat worker and experienced consultants should be able to interpret such data to establish some vital data feeding into site registrations. Whilst not entirely reliable interpretation of social calls can also help form conclusions on roost dynamics and type.
- As above, I would expect each level to be able to understand and carry out analysis of data, even if they are leading others in carrying out on the behalf of the licencee. More complex sites will need higher ability to question data results and draw conclusions using all information (including observation, remote bat detector, combinations of data ie video, thermal, bat counters etc) as to the complexity of sites and how they are being used by bats.
- Important skill for species analysis.
- Covered by Tech 2.
- Perhaps a difficult subject to quantify in regard to experience, but I believe the confidence in determining bat species through / via sonogram analysis is indicative / supportive of an individual’s confidence in identification in the field, whilst identifying the difficulties / complexities of relying solely on bat detectors to determine number/species / activity etc.. Not a perfect test of competency but as an advancement /assessment tool I think not enough emphasis is given to sonogram analysis. Im no technophobe but have seen far too many people coming through the ranks that are relying to heavily on the technology and not enough on field craft.
- Yes - accurate sonogram ID can be critical in determining the species present in a roost. Too much emergence survey work is still being done with heterodyne and non-recording detectors.

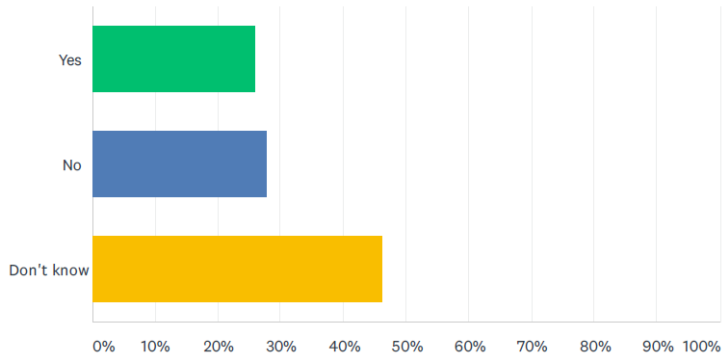
- It shouldn't be assumed that consultants are able to analyse sonograms and poor skills in this area could lead to misidentification of species. However, the limitations of sonogram analysis should be recognised, eg, it shouldn't be expected that applicants can split the myotis species.
- Help with certainty of roost identification and make sure that the right level of expertise has been selected. Thus helping bat conservation and potential for mis-ID'd bats.
- You should be able to analyse bat calls of all bat species, to an accuracy that is currently acceptable (as some species are hard to differentiate), so yes I think this should be included. It's part of being able to determine an accurate roost assessment - number, species and roost type.
- Correctly analysing sonograms is a very low bar and all licensed bat workers should be able to do it to a high level in my opinion.
- Its a key element of ID of the bats involved where droppings cannot be sent for EDNA or captured and handled. Again this competency should be viewed along with all of the others not on its own.
- Important skill for bat identification and so is relevant to the different levels.
- This forms an important part of identification so certainly should be included.
- It is important to ensure accurate surveyor ID of species, where DNA sampling has not been confirmed etc.
- I think all bat workers should be able to undertake basic sound analysis - e.g. identifying all calls to species level (other than Myotis which can be grouped), identifying social calls and identifying none bat calls (noise, other). Identifying Myotis to species level is much more difficult and should not be included. However, I do not this you should have to be accredited to undertake sound analysis. I know many people who are very good at sound analysis but are not interested in be bat ecologists.
- I consider sonogram analysis to be a basic competency and tool that all bat workers should be confident in using.
- this feels like it should be attributed to your survey licence and not for the assessment of your ability to determine and assess impact for development. The person should be confident in reviewing data from others IF they have not undertaken survey effort themselves prior to preparing the licence application / site registrations.
- This is highly relevant to species identification and actually more relevant than the identification of species in the hand (which most often occurs when mitigation is being implemented). Collection and DNA testing of droppings should also be included.
- THis is not needed for the assessment of all roosts and colonies of bats. ID could be from DNA/ visual or use of other bat surveying methods such as in hand. It assumes ID of LHS is difficult.
- Sonogram analysis can help identify additional species using a roost that are difficult to ID during surveys and also aid in categorising a roost (i.e through the presence of social calls etc.).
- I thought the focus was on mitigation licencing at this stage? maybe somthing to include in time to replace the survey licences?
- Sonogram analysis is an important part of identifying bats present at a site with minimal disturbance to the bats present while allowing accurate species identification.
- Often bat species like Brown Long-eared bats are not picked up on hand held bat detectors (need high spec professional equipment) and if the surveyor is not experience enough they will not recognise the flight pattern of different commuting bats if they are not echlocating.
- I feel this should be covered under Tech 1 or/and 2.
- Sonogram analysis should be used whenever there is ambiguity in the bat species detected during a survey no matter what the level. But more likely to be required for levels 2 & 3.
- This is important for checking anomalies.
- Whilst sonogram analysis is an important skill it is not necessary to the design of mitigation, interpretation of the results of the sonogram analysis can help to determine the mitigation required, but this could be done based on a report from an ecologist specialising in sonogram analysis within the ecologist who is designing the mitigation having any skills or knowledge in carrying out the analysis themselves.
- All levels.
- Species ID is a key element - even if its just to the accreditation level being applied for.

- It is important that those undertaking mitigation work are competent in checking species and ensuring that the correct species are being licensed - this is all part of being a competent bat worker undertaking mitigation work.
- Many companies have specialist data analysts and therefore the more experienced bat workers may do little analysis of their own. Furthermore, DNA and other techniques can be used to identify cryptic species. On the other hand, it is a part of field work!
- A 'recognised' bat ecologist should be able to identify bats by sonogram analysis as well as in the hand.
- Accurate identificaiton of a species is fundamental. While species may explore similar niches, the ecology of each species does vary and so inaccurate initial assessment will likely lead to mitigation schemes which are poorly targetted, especially with respect to determining wider land management objectives (e.g. provision of linear features, versus management of woodland and scrub to create complex and humid conditions suitable for certain bat species).

Appendix 7. Responses to Questions 40-43 Assessment, Sifting and The Pilot

Question 40. Are there other types of assessment methods that could be applied to ER accreditation in relation to the competencies in the framework?

Answered: 216 Skipped: 36



ANSWER CHOICES	RESPONSES	
Yes	25.93%	56
No	27.78%	60
Don't know	46.30%	100
TOTAL		216

73 comments were received and are provided in full below.

This raw data has not been amended in any way and in some cases represents a misunderstanding or misconception on the part of the respondent – the comments should be read with this in mind.

- Sending bat dropping samples off for DNA analysis?
- I think by splitting the ER criteria into levels 1, 2 and 3 you have already applied an assessment, as for level one you expect a basic ability, level 32 you expect someone to be able to manage complex sites and roosts and level 3 is complex sites and structures with rare species and roosts. To break it down further would likely result in sub-levels for competencies.
- Some form of assessment and/or formal exam.
- Use of 'non-standard' survey techniques for more complex / high risk sites.
- Use of thermal and/or infra red filming technology.
- Accreditation through existing development licences held.
- Other assessment methods may be useful but may not be essential in all situations.
- Bat welfare and ethics, understanding best practice and mitigating ones surveys for level 2+3 to minimise disturbance. all too often I see surveys that are unnecessary, far too disturbing with ecologists doing them just because they can and there licenced when non invasive methods can be conducted.
- Will need check ups and enforcement. I am also a LPA Ecologist part time and would urge consideration of this allied to planning enforcement/planning process/BNG monitoring.
- Keeping training/knowledge up to date, technology constantly moving on, need to keep evaluating your methods and update as needed, not stagnate.
- I always try and emphasize to our staff the importance of that initial building survey and what information you can get if it is done correctly and in sufficient detail. I appreciate getting this worded as a competency is difficult but I just feel some of the wording is quite generic and

perhaps a more specific/targeted wording on what the key assessment methods are would be better.

- I am aware that this was mentioned during the webinar and that it was advised that anyone registered to use the BMCL would still need to apply to this new ER accreditation, however I strongly feel that those of us who are currently RCs under the BMCL have gone through a stringent assessment process at the time, and this should be taken into consideration as part of the ER accreditation assessment.
- Has a person ever had a license refused, further information requests, submitted their returns on time, been prosecuted or reprimanded from NE or their professional body.
- I can't see advanced techniques (mist nets, harp traps, use of sonic lures) mentioned.
- Harp trapping.
- Online testing.
- I think the four assessment methods seem appropriate and I'm pleased to see that the approach is thorough.
- Possibly but I think that this will become more apparent once the pilot scheme is undertaken.
- Full list of knowledge required to work at level 2 or 3 not already covered.
- The existing one.
- The use of additional survey methods MAY be needed to identify and/or understand the number of species present/roost type for some quiet calling species such as Plecotus sp. or Myotis nattereri (where the roost exit point is some distance from the surveyor). Examples of possible additional methods which MAY be required are Infra-red video cameras, catching (by harp trapping or mist net as well as by hand net), Thermal Imagery. DNA may help with species ID (if samples available) but cannot assess numbers.
- Presumably case study examples will be used as part of the practical assessment.
- Use of TI equipment.
- Avoid competency frameworks all together and complete assessment as an analysis of the specific skills and experience of the individual ecologist, rather than trying shoehorn what can be very specific and unique skill-sets into a generic competency.
- Yes, survey class licenses.
- Some respondents with other agendas will add thermal imaging (as they offer the courses) and complex sonogram analysis for the same reason!
- Who will do the assessing. What will happen if you doubt the competence of the assessor?
- Existing licensing experience should be valued and perhaps used to automatically issue a level in accordance with this. This would save considerable time in getting people registered and allow a fster overall progression of this roll-out, whilst the stated compliance visits from NE will ensure anyone who is automatcially enrolled is checked for poor quality work and new assessment carried out if felt necessary. The scheme states that for example the bat mitigation class licence does not ensure the quality of the work, however consultants are now being requested to jump through the various hoops to justify and proove experience, knowledge etc. yet Natural England have repeatedly altered the licensing process in the past stating that it will make services more efficient and it appears these have not worked. This is the responsibility of NE and more effort should have been made over the years to carry out compliance checks and this would have automatically ensured the quality of work. This scheme appears to automatically presume that consultants are not carrying out works suitably and so everyone has to be assessed from ground 0. Those who have many years experience are tired of repeately jumping through the requirements for new schemes and previous experience now appears to be of no value with no consideration of those already holding various licenses, BMCL, BiCCL etc.
- Experience has not been taken in to consideration anywhere in the document. Working on the ground with bats and owners of properties and liaising with architects and builders on a small scale is not taken into account with any of the competencies.
- Standardise or assessment of eDNA analysis. If using DNA analysis as part of species determination (and hence Level), then confidence must also be made for companies or university departments that provide analysis. Reviewed periodically to ensure standards are being met and for emerging companies/departments to be added to the list of 'approved suppliers'.
- We should be able to use examples of more complex situations from any point in our working lives. If we can show that we have been able to deal with these previously, we haven't forgotten how to and can still deal with them even if we haven't necessarily dealt with them within the past (e.g.) 3 years.

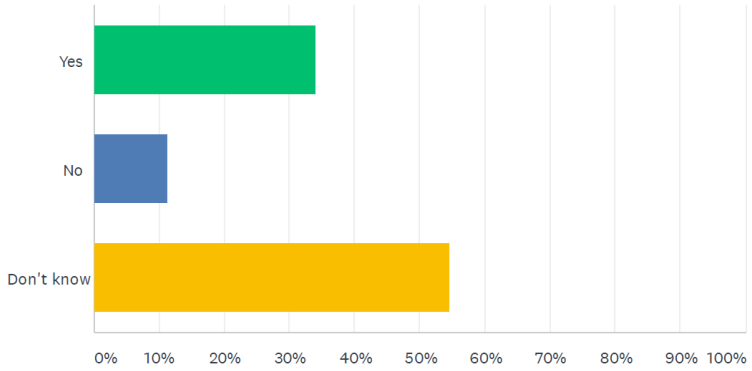
- Existing survey and class licences.
- There appears to be no account taken of academic qualifications or scientific credentials, which are potentially hugely advantageous in investigating, understanding and interpreting evidence and context related to a mitigation scheme, and without which consultants may rely on applications of rules of thumb which may not always be appropriate.
- Previous mitigation licences held should be taken into consideration (and not just in the last 3 years) Those with level 4 survey licence are usually people who live and breath bats and level 4 survey licence should carry some weight.
- Complicating the matter, and allowing NE to palm of their responsibilities as our SNCO just because of cuts, and not because they feel that they can focus on monitoring work.
- The one we have already isn't perfect but it is a million times better than this proposal.
- All of the methods sound great in principle - if perhaps overly labourious - my fear is you're placing too much emphasis on entry and not enough on ongoing compliance. With all the assessment methods and the number of ER competencies you may create a monster of a process to gain entry - I fear that the competencies are each perfectly fine in their own right and justifiable but all put together it could be absolutely tiresome/cumbersome to apply for and administer - the focus need to be on the results and ongoing compliance checks - not the entry process otherwise you're simply going to perpetuate the failures of the NE scheme.
- All four methods seem adequate.
- Some sort of exam as part of the renewal of a licence. I keep hearing about people who have got level 2 licences from friends signing them off. Some sort of external assessment is needed that creates a consistent level of competency assessment, this also ensures continued learning.
- Visual assessment of trees and buildings for roosting bats potential.
- Not totally clear if this is covered elsewhere, but use of advanced bat trapping - at least understanding where it can be applied to provide greater information on roosting bats.
- May need to think about this for longer.
- Low Impact Bat Mitigation Class Licence holders should automatically qualify at Level 1.
- Personally I think the move towards earned recognition is a good change. I do think the process of writing licences is really useful for thoroughly thinking through mitigation. Especially when it comes to desigining mitgation for the longer term impacts such as fragmentation and lighting. I think there is a real risk that with quicker licencing there won’t be the thought/ design process that comes from writing a lengthy document and those with earned recognition might be pushed to reduce mitigation in relation to these. If licencees had to hold a completed 'section D' of the current mitigation method statement, that would probably go some way to resolving that need.
- See comment on previous question.
- Also consider experience, time spent passing on knowledge to oncoming ecologists. There's a lot of competencies (I do hate that word) which are about communication - with clients, colleagues etc & this should be included but difficult to demonstrate to a panel or other hi up folks so it would need to be references from ecologists who had been encouraged, helped on the ladder & so will pass on these skills without everyone going on progressively more expensive courses which not all can do.
- Scrutiny of past projects, outcomes, contribution to bat conservation, commitment and appropriate references.
- Ground tree roost, aerial tree climbing, monitoring of roosts, bat box checks.
- Ensure a PRA is conducted by a competent person with relevant training, not just a licensing.
- Can't think of any others at present.
- Peer-review by, or collaboration with experienced, licensed bat ecologists. Application reviews could be carried out blindly (i.e. no name of ecologist) to ensure the application is judged on its own merit. I have personally found working alongside very experienced and knowledgeable bat ecologists to have improved my knowledge exponentially over the last three years. Having a panel of bat ecologists for each region/county to assist Natural England would help ensure high standards are encouraged and maintained at a local level, resulting in better bat conservation on a national scale.
- Experience and number of EPSL/BMCL granted should be taken into account. Someone who has successfully applied for large numbers of licence in the past will have been scrutinized through the current NE licence system and should already be knowledgeable, competent and professional.

- Return rates of licences and submission of records. People should provide evidence that they have both made returns and submitted records to the county recorders for all previous licences. These records are essential. Also this should be included I. The licence- this must be completed before the next licence granted.
- I think a presentation type approach with QA is better than an interview type approach to assessing experience in a competency. Much similar to how a consultant might take a client or other stakeholders through scenario. Its a psychological things really and gives the initiative to the assessed rather than the assessor which is a much better way getting the competency properly considered.
- People who have held and executed mitigation licences in the last five years without issue for particular species/species groups should not have have to be assessed and examined. They have already demonstrated their competence. It's a waste of eveyrone's time and money.
- I am concerned that this type of system may benefit people who have had a lot of years in the industry, but may hinder developing ecologists.
- Whilst those proposed sound very rigorous, is it realistic than NE will have the time and resources to carry out online testing, practical assessment, submission of a portfolio and a structured interview ?? Sounds extremely time-consuming! Will their be a 'fast-track' approach for those who have already been the Named Ecologist on mitigation licences covering specific roost types/species / Bat Mitigation Class Licence holder / Bats in Churches Class Licence holder (latter is BMCL approach but for 'high risk' scenarios i.e. large maternity colonies in churches). Also please do not forget those with relevant research experience (into mitigation & compensation measures) and relevant individual/Project Licence holders (especially for rarer/Group 3 species, radio-tracking/ringing, mist-netting, harp-trapping etc).
- I am not clear exactly what the portfolio part of the assessment. If it includes examples of previous work and outcomes, great, if not that should be included.
- I think that 'earned recognition' sounds like joining the 'nice people club'. It would be more professional if there was a recognised qualification to use the scheme. 'I've got the XXX Certificate so I can use the scheme'. It would be good if one can be trained and assessed by expert institutions eg colleges, universities, not just by a panel.
- I think experience should be taken into account. Somebody with for example over 20 years practical experience of undertaking bat work is likely to have a better understanding of bat behaviour and ecology than someone with 3 years.
- DNA collection? Prevention of cross contamination for example.
- Best practice bulletins or webinars which RC's must attend as new progressions in science occur to ensure ongoing up to date competency. This has perhaps already been considered but I haven't noticed it in in my review/listening to the webinar.
- If by assessment you mean methods such as IR video, thermal, environmental monitoring (temp, humidity, light, noise,.....) together with emerging and experimental methods (bat IR counters, camera trapping,), then I would expect these to be included. At level 3 I would expect licencees to be leading in developing new methods/combinations to assist with working more robust and efficient methods of assessment.
- Portfolio of work, number of mitigation licences worked (including BMCLs).
- Training delivery for each level to set the minimum standard.
- Although difficult to apply without suggesting a bias to certain trainers / outlets (in a manner not dissimilar to the membership issue) but perhaps recognition of certain CPD training courses as an acknowledgment of competence would be useful. Far from an ideal scenario when training under a single person, but as yet I have seen no suggestion of providing training / experience references of any sort. Is the requirement to demonstrate experience / competence through the recognition of a mentor being dropped or could it be included within the ER framework?
- Planning, design and construction - many ecologists dont get planning and sometimes mitigation design impacts other aspects or regulations be they planning or building regulations etc.
- I would expect a Level 3 accredited consulatnt to have Advanced survey skills (e.g mist netting/harp trapping may well be required for species ID of small myotis maternity roosts). This also demonstrates a certain level of competence and expertise working with bats.
- Collection of droppings and submission for lab testing for DNA analysis.
- Advanced techniques.
- I think all relevant assessment methods are covered.
- ABST techniques once work on the pilot is complete.

- Advanced capture methods: Mist netting, harp trapping, radio tracking, bat marking and recapture methods.

Question 41. Do you think this process will pick up the right cases for manual assessment?

Answered: 214 Skipped: 38



ANSWER CHOICES	RESPONSES	
Yes	34.11%	73
No	11.21%	24
Don't know	54.67%	117
TOTAL		214

104 additional comments were received and are provided in full below.

This raw data has not been amended in any way and in some cases represents a misunderstanding or misconception on the part of the respondent – the comments should be read with this in mind.

- I think that a certain (small) percentage of cases at all levels should be assessed manually, at random, to ensure standards are being met and the scheme is working correctly. This may be particular important for lower risk (Level 1) cases as these will be the majority and also the cases where people may be more tempted to bend rules.
- I am not familiar with the sifting process.
- That depends on what you mean by the right cases, I assume you want to ecologists to use the level system instead of the standard mitigation route to see what numbers of licence applications you are getting and which level they fall into and which group of species. for example, I have a maternity colony of Daubentons bats which are roosting in a culvert which may be impacted by works for flood defences, so this would fall into the level 3 category. Also unfortunately you are rolling out this scheme in a pandemic, where many people and businesses are struggling you may find the number of applications reduces as a result.
- Based on BCT survey guidelines so presumably anything that does adhere to these will be sifted.
- It would depend what levels are checked.
- The examples provided set out a fairly robust method for how the sifting process will work. Providing the assessors receive appropriate training the right cases should be identified.
- I would like to see some more details on it to decide.
- For level 1 yes, for level 2 I think it will be possible that cases will be missed due to the number of species roosts, and roost types included in this level.

- Would need to see it in action. Will depend on individual officers. I would always say that maternity roosts of rarer species will need case-by-case attention.
- I hope so.
- It probably could assuming NE can get their system set up to be able to pick up on the manual assessments. The ER level of the ecologists is quite cut and dry (this many species, this number of roosts) but bat ecology and roost status is not always so obvious so there will always be schemes that fall on the boundary between levels. So as long as NE have the opportunity to discuss the site registration with the ecologist (when needed) then this should work. The wording of 'refused' in the project brief worries me a little for these types of scheme and I would expect some form of dialogue between consultant and NE when needed.
- I haven't found enough information about the sifting process to comment on this yet.
- I think there may be some sites that are of higher value but which are assessed as being of lower value either intentionally or unintentionally and will not be mitigated appropriately, particularly if survey and analysis skills are not required under the competency framework.
- I am not aware of this term?
- The higher level cases should be subject to a manual assessment where there are constraints, but I would also like to see occasional low level spot checks within the piolet.
- It focusses on the higher impact projects e.g. maternity roosts and those where non-standard survey techniques have been employed.
- It really depends on who is doing the sifting.
- Will this depend on the resource capacity of NE.
- Depends how the screening questions are designed and checks will be made to make sure it being honestly answered.
- I think it may be worth manually assessing a small percentage of site which meet the specified guidelines so that high standards are stuck to by all.
- As long as the ecologist registering the site has the appropriate accreditation level (which shows experience) for the species and roost types present, and they have followed standard guidance regarding surveys, assessment and mitigation then these application wont need manual assessment. Any that don't follow standard guidance or are level 3 for species or roost types will be manually assessed as these are high risk.
- I think the process seems to be balanced, particularly with the thorough assessments proposed.
- Hopefully but there will always be some that slip through and should have been manually assessed. Again the pilot scheme should help with this.
- I fear that some of the sifting treats the Bat Survey Guidance as a recipe book, which is entirely wrong. For example: Table 4.1 is to assist bat workers to ascribe a likely value to properties in terms of the type of roost it might support, and not how likely is it that it could support a bat (any bat of any status roost). While the table is fairly clumsy (understandably), one critical point is that a confirmed roost does not automatically have ‘high suitability’. In relation to survey effort, Table 7.1 is entitled Recommended timings for presence/absence surveys to give confidence in a negative result for structures... so once you find bats, you only need to do as many surveys as it needs to be confident in determining its level of use. The level of effort for 7.2 Roost characterisation surveys is not specified in terms of survey numbers, but it terms of the information to be collected – as clearly specified in 7.2.8 Survey effort – it is not prescribed by relating back to Table 4.1. And so on... Any sifting that relies on a recipe-book approach is likely to fail.
- Possibly if experience of the sifter can detect poor surveys and analysis.
- Depends how it is set up and what percentage.
- It will probably be biased to chums of BCT CIEEM and NE and not open and fair or transparent.
- Your stated sifting criteria include :" Site registrations for lower and medium levels of risk (at Accreditation Levels 1 and 2) which meet specified guidelines will usually not be subject to any manual assessment...". In response, unscrupulous consultants (who do exist already) will simply make sure that their assessment of roost type and species ID makes sure that the roost and species are in the lower risk categories, knowing that there is little if any risk of being "caught out”.
- Not found any information on this.

- I think it would as long as there are enough recourses to enable applications to be checked that published standards have been met.
- It has the potential to, but there is an assumption that ecologists working at levels 2 and 3 will always be consciencious in the work that they do. Which we know, for certain individuals to not be the case.
- Though I think it would still be sensible to review a proportion of those which are considered less complex.
- Not sure ....if you use some sort of search algorithm ...you could ensure that any and all cases involving a key species could be flagged and other lower risk cases could be allowed through. e.g. NRW issued a tech note on bats and planning. any survey where Horseshoes are found or any mixed species maternity roost and they want to be consulted....they did ask that this policy was added to the front of all reports.....as it also said any surveys where pipistrellus sp. were found or a low risk single species roost they they do not want to be consulted...thus saving on time and workload
- Details.
- More information on how the process will be implemented and by whom - carry out some testing and refine the process.
- Not without accomodating regional variation in abundance and habit of some species, for example Natterer's; significant satellite and small maternity roosts can be quite commonly found in small and simple development projects in some areas and are easy to mitigate for successfully (they don't use interiors), so do not seem to fit within the species group 2 or justify level 3 accreditation. The same goes for several other species.
- I hope so, along with some spot checks of others?
- I hope so.
- Based on the Competencies listed, I would assume the sifting process should pick up the majority of suitable candidates. However, I am concerned some people who might be perfectly competent, but less confident in expressing/evidencing those competencies might be under-represented, whilst some very confident people might be overly confident in their own abilities and be over-represented. Manual assessment of applications is therefore an essential part of the accreditation process.
- The sifting will allow Natural England to focus more time on the sites which will impact bat roosts of higher conservation significance.
- But obviously requires the consultant to assess the case appropriately and NE to have systems in place to ensure that the sifting process is effective.
- We don't know what criteria you will use to sift with.
- Overall probably it will, but it would not hurt to do do random checks of Levels 1 and 2 from time to time. On a related issue..... a problem that occurred to me is - as stated in the document, site registrations where the accreditation level of the applicant does not meet the level required for the species and roost type/s will be rejected. So e.g. if you are a level 1 or level 2 accredited consultant and you price for a job with your client and it turns out after surveys that the job requires the level 3 accreditation for site registration, which you may not have in house. I understand with the current system if you find yourself in a situation where you are not confident in the correct mitigation, perhaps it is a species you have not worked with before or there are complicated issues, for which you have little or no experience, then you would seek advice from others who do, but ultimately you would probably still submit the licence application yourself stating similar species you have worked with, acquiring references as necessary and that you had consulted with named others on the particular issues. What happens within the ER accreditation it may be difficult to go to your client (who may not understand the complexities of this process) and say sorry we can't do this, the situation requires a Level 3. This is not likely to go down well and you could potentially lose clients. Can you still go down the traditional licensing route or will you have to subcontract the services of a Level 3? Am I missing something here?
- Broadly yes, but consistently in the sifting process needs to be systemised before implementation. Once systemised then followed exactly with any issue being raised by practitioners BEFORE making changes to the system. If changes agreed then process amended and ALL those responsible for the sift informed and trained. NOTE: I may have confused this sifting process - I assume sift is completed by NE or is it the applicant's ecologist?
- Probably but it is difficult to say until the system has been tested.

- I think having the strict adherance to guidance inorder to have the quickest determination will lead to too inappropriate surveys on different structures to just conform as oppose to using professional judgement, selecting the best survey for the roost type. it should be much more nuanced than just surveying for maternity roosts.
- This will only be determined as the process develops.
- If we haven't earned the correct level of accreditation then the application will be rejected. This means that if I can't provide enough examples to earn level 3 I will be unable to apply for licences impacting on maternity roosts of certain species, which currently I am able to. You envisage only a small select group of people will earn level 3. This will severely restrict the services that I can offer to our clients and will have a detrimental impact on my livelihood.
- Still a margin for error. People who have produced more BMCLs that have been assessed frequently checked in the past should have theirs assessed less often moving forward.
- Hard to say without more detail and seeing it work in practice.
- But I am not sure why anyone would apply for a site registration which is a higher level than your accreditation level as it has been stated this application would be rejected not manually assessed. I agree sifting should pick up cases where guidance hasn't been followed and those which would be Level 3.
- I don't know how you sift.
- You don't have trained staff to review this. Unless this goes to a senior wildlife advisor first and foremost.
- I think it's broadly on the right track but I think you should just also choose them at random - that way you'll get exposure to the broad range of applicants whereas at present you run the risk of very little oversight of any Lower tier registered consultants. Everyone needs to know they might get checked on.
- Depends on the system and how easy the application forms are to complete I think.
- Generally it will work. However, there are times when deviating from the guidance would be best for the conservation of bats. Situations like these may result in consultants sticking to the guidance regardless of bat conservation due to potential delays.
- Don't know what this entails.
- Although the examples given are all at the simpler end of the spectrum.
- However potentially some tolerance needs to be allowed. For instance the BCT guidelines state dusk and dawn surveys should be undertaken however with the increased use of IR technology it may be possible to obtain all the survey information required by undertaking dusk surveys, or another combination of surveys.
- It wasn't clear if random assessments will be made on all levels frequently. If someone is registering more than "x" number of sites within two years they should also be assessed.
- This will be more evident once the pilot has been run.
- I believe given more time (and assuming this is not a government cost cutting exercise at NE), the wildlife licencing team will be able to pick up on the cases requiring manual assessment. The team should also have more time to be trained on what to look out for (rather than constantly churning through low importance roosts). I would hope that this is backed up by a random review of cases sent for automatic sign off as quality control.
- I would be optimistic that it would but would require more detailed information on how they will be assessed to be confident of a yes no answer.
- Depends upon how the sifting is organised!
- The examples in the consultation document seem reasonable. Many older ecologists talk about when there was more discussion with NE advisors 10 or so years ago, for complex cases this seems like a good way to go when all documentation and a mitigation plan is in place this acts as a good check.
- My only concern is that there may be sites where it is not appropriate to follow the standard survey guidelines but where a consultant chooses to follow the guidelines blindly instead of adapting and using not standard guidance approaches (despite this not being best approach for surveying bats in certain situations). This could also lead to abuse of this style of system. There may be some situations where following survey guidance may limit the findings of the survey and things could have been missed. The current proposal of sifting suggests only those who use non standard survey will be flagged (along with high and medium risk situations) but what measures will be in place to check that consultants are adapting survey protocols to fit the situation and maximise survey findings rather than just following guidance without thinking (or purposefully not using additional non standard methods that may be better suited because it will be easier to get through the new mitigation licencing scheme without

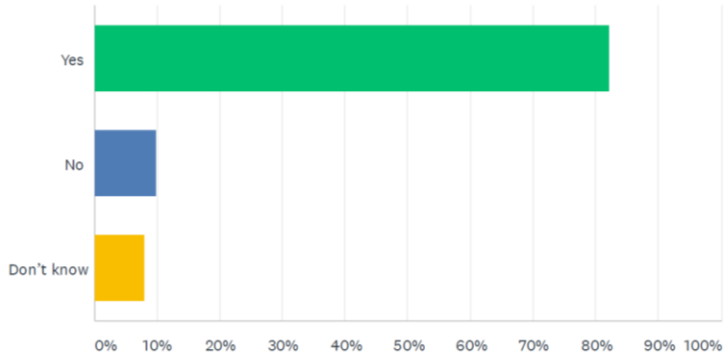
being flagged). This could be approached through the accreditation assessment by giving a number of scenario style questions about survey design to check that consultants really consider the best survey for getting the results rather than blindly following guidance and not using their own professional judgement.

- I imagine this needs to be trialed and random registrations selected at the beginning to ensure the system is robust.
- It's largely tick boxing so may miss the mark seriously.
- Methodology appears to be reasonable and proper.
- I am not sure as the simpler ones will be passed over although these are more straight forward. I would want 1 in 10 checked for manual assessment even if they don't trigger the manual assessment threshold.
- I would need to experience the way that sifting is carried out to be sure one way or the other.
- The process seems to have flags that will pick out most cases although sites with sub-optimal surveys (although still within guidance) would potentially be missed.
- The three examples provided suggest manual assessment would function as intended. However, I would like to see a potential pathway for improvement on an individual level. Whilst the applicant should not expect site registration for activities beyond their accreditation level, I would like to see an option for the site registration to be supported by somebody with the relevant accreditation level, e.g. as a guarantor. This would enable the applicant to gain experience towards, and provide evidence for, an application for accreditation at the higher levels. It would also prevent the vastly experienced (and most likely well-paid!) ecologists from holding an initial monopoly on the market, similar to when the BMCL (formerly BLICL) was implemented.
- If it is based on experience and competence then the process should then identify 'red flags' that would need further assessment in theory.
- I need more information on how this would work. (I may have missed something?)
- The detail of how this is proposed to work is far from clear to me.
- Not entirely sure how this process will be carried out, but seems like it could be straight forward enough.
- But I do hope so.
- If an effective system is put in place, then yes.
- I am not really sure I have enough information as to how sifting will work to make an assessment - my apologies if I have missed that somewhere.
- My concern is that cowboy consultants will downgrade the status of a roost or not report the species present correctly to ensure they don't have to secure the higher level licence.
- I would hope so, but until it runs, its hard to tell, no? Should there be some selective/ random verifications run while its in its early days?
- I hope so.
- Provides a mechanism to ensure effective positive conservation outcomes for bats by applying scrutiny in situations of complexity/beyond RC's competency.
- Time will tell as both the licence authority and licencees gain confidence in the approach being proposed. Allow time for understanding and relationships to develop.
- Depends on process.
- Without having seen an application in full it is difficult to determine the level of detail being requested. I think the principals are good, but without a sufficient level of detail from the application forms believe there will be opportunity for non standard applications to pass through un-noted.
- The sifting process allows for consultants to deviate from the guidelines and use their professional judgement, which is important providing the methods can be justified. It is important that NE pick up these irregularities and investigate to ensure the best outcomes for bats.
- If the system works and everyone on the scheme is properly checked and vetted, then in theory all the applications coming in should be at the quality and level required within each banding and therefore sifting will flag the cases that need checking. I agree with this approach, but it does depend on the whole ER system working.
- I find it hard to make this judgement on the basis of the information provided. It is also hard to know how this will be implemented in practice.
- Difficult to say at this stage - depends on the skills and knowledge of the sifters.
- I hope it does, it seems like this will be resource dependent just as the current licencing system is.

- Not really enough information provided at this time.
- I assume this is what the pilot is for - can't say for sure until it's tested.
- I would expect registered ecologists to know which level roost they were dealing with and work within their licence requirements. Maybe a random audit approach would work?
- Not sure what is meant by manual assessment.
- Innacurate or misleading applications could slip through the net and avoid manual assessment.
- Without knowing the criteria to be applied it is difficult to answer. I believe there should be a randomised call in of projects for checking manually.
- in addition to sifting I think that there should be random checks of all registered sites to ensure that standards are being met.
- This will depend a lot on the background programming of the system. If it is just a tick box exercise then it will pull out anything which doesn't exactly fit the criteria, but with bat mitigation there is rarely a 'standard' licence application as every site is different and there is a lot of professional judgement involved.
- There is the possibility of cases being missed.
- Depends on process/criteria and knowledge/experience of NE sifting staff.
- I think this is difficult to know until the process is tested.
- From experience, everyone is trying to achieve good outcomes for bats and their clients. A smooth/streamlined licencing process will help this.

Question 42. Would you be interested in becoming involved in the ER Accreditation Scheme Pilot?

Answered: 213 Skipped: 39



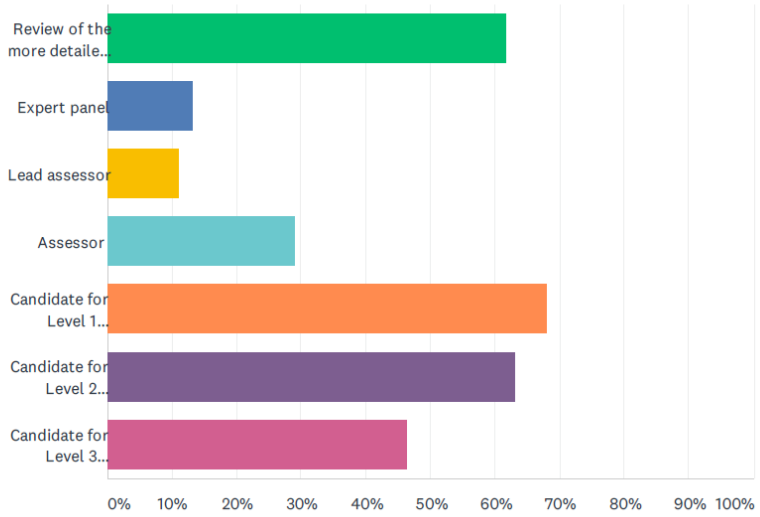
ANSWER CHOICES	RESPONSES	
Yes	82.16%	175
No	9.86%	21
Don't know	7.98%	17
TOTAL		213

Question 43. Which role would you like to be involved with? Tick all that apply.

This question was originally designed so that respondents could only tick one answer but it soon became apparent that this was not the correct approach, as some respondents may be interested in more than one role. The question was changed and the responses received prior to the change were downloaded. The small number of respondents impacted have been contacted to find out all their preferences.

In total 422 responses were received so at least some respondents ticked more than one option.

Answered: 144 Skipped: 108



ANSWER CHOICES	RESPONSES	
Review of the more detailed Competency Framework (this will be required for anybody involved in the pilot)	61.81%	89
Expert panel	13.19%	19
Lead assessor	11.11%	16
Assessor	29.17%	42
Candidate for Level 1 accreditation	68.06%	98
Candidate for Level 2 accreditation	63.19%	91
Candidate for Level 3 accreditation	46.53%	67
Total Respondents: 144		