

Carol-Anne OCallaghan

17th June 2021

Dear Carol-Anne,

Further to my previous letter (dated 11th June) I have provided below my assessment of the data obtained from the Anabat express detector deployed along Leather Lane. I provided the results of my analysis of the data previously, but I have included it again at the end of this letter for ease of reference. You have provided data for a further three nights (8th to 10th June 2021) which I will also analyse and report on separately.

I have visited Leather Lane on four occasions in 2021, most recently on 8th June, in order to familiarise myself with it, the characteristics of the lane and its setting, so that I can contextualise the bat data you have supplied against my own understanding and assessment of the lane.

As background, I am a professional ecologist with 18 years' experience across a wide range of ecological issues. I am a Principal Ecologist at Bioscan although my involvement at Leather Lane is provided as a private individual. I am a full member of the Chartered Institute of Environmental and Ecological Management and have appeared as an expert witness at several planning Public Inquiries including where an impact on bats has been a key consideration. I am registered to use Natural England's level 2 (CL18) bat survey licence (registration: 2015-11529), am a Registered Consultant on Natural England's Low Impact Class Licence for Bats (registration: RC102). I have also held numerous site-specific mitigation licences for bats. In a professional capacity, my work includes the full range of work relating to bats, from designing survey programs to assessing the extent of use of an area or feature by bats, and analysis and interpretation of data collected via transect, static detector and emergence/re-entry surveys. I also provide advice to commercial clients regarding how proposals can be modified to reduce or remove an impact on bats, and advise on options for mitigating potential residual effects on bat activity, such as from artificial light.

Assessment

To date, the data collected from Leather Lane has confirmed the presence of at least seven species of bat: common and soprano pipistrelle *Pipistrellus pipistrellus* and *P. pygmaeus*, noctule *Nyctalus noctula*, serotine *Eptesicus serotinus* and barbastelle *Barbastella barbastellus* and at least one species from each of the *Plecotus* and *Myotis* genera. Of these, soprano pipistrelle, noctule and barbastelle are identified as Species of Principal Importance further to the Government's duties under Section 41 of the Natural Environment and Rural Communities Act 2006. Barbastelle is also considered very rare in Britain¹.

Of significance in the data is the regularity with which bats are recorded by the detector, with typically only a few minutes between each registration (the full data set is appended). Furthermore, this high level of activity is maintained throughout the night, indicating that bats utilise the lane more-or-less continually. A likely reason for this is the context of the lane when seen at a landscape scale. Leather Lane is broadly aligned west-east perpendicular to the A413, making it one of only three single carriage way roads across a stretch of land over 7km long between Frith Hill at Great Missenden to the south and Hale Road at Wendover to the north. Particular to Leather Lane though is the fact that it is also below the level of the adjacent land for much of its length; a 'holloway', and there is a continuous

¹ Bat conservation trust barbastelle factsheet, <https://www.bats.org.uk/about-bats/what-are-bats/uk-bats>

hedgerow along the southern side for the entire length of the lane. These two characteristics create a sheltered corridor and optimal conditions for bat activity and it is not unreasonable to suggest that the lane is unique² when compared to the other lanes.

Landscape scale features that provide high quality commuting routes are a key factor in the maintenance of local bat populations, providing sheltered corridors between roosts and feeding areas. This is particularly important for the barbastelle bat which is known to forage as much as 20km from roost sites³. Removal or significant alternation to the lane and its particular characteristic therefore poses a significant risk of, at best, disrupting or hindering bat movement, or, at worst, removing an important bat corridor entirely.

In accordance with the mitigation hierarchy⁴ the first option should be to avoid any impact to Leather Lane that could compromise its bat corridor function. Whilst it may not be possible or indeed in the best interest of bats⁵ to re-route the track to entirely avoid Leather Lane, the first consideration should be to avoid a direct impact. One option for this would be to put the track through a tunnel and thereby maintain the integrity of the lane intact. I am not aware that this has been given full consideration or therefore ruled out as an option.

Where avoidance has been shown not to be possible, design changes should be made to maintain the characteristics of the lane, in particular its location below the level of the surrounding land, together with the mature trees and a hedgerow along the southern side. Minimising the width of the track and area either side would ensure that at this location only the very narrowest cut was needed. A green bridge along the alignment of the existing road to ensure there is no break in the corridor should also be considered. As stated in the NPPF, only once such options have been fully considered and ruled out, should the last resort of compensating for the impact be considered.

I hope the above is of assistance and please get in touch to discuss anything further if necessary.

Regards



Sam Watson MCIEEM BSc (Hons)
Principal Ecologist

² Bowood Lane is also set below the adjacent ground level but lacks a continuous hedgerow

³ Zeale, M. R. K. Davidson-Watts, I., & Jones, G. (2012). *Home range use and habitat selection by barbastelle bats (Barbastella barbastellus): Implications for conservation. Journal of Mammalogy*, **93**(4), 1110-1118.

⁴ Para 175(a) of the NPPF (February 2019 version)

⁵ An alternative route may result in a impact to other key areas for bats

Table 1 - Total number of bat registrations per night for each species

Survey night	Common pipistrelle	Soprano pipistrelle	<i>Pipistrellus</i> bat	<i>Plecotus</i> bat	Noctule	Serotine	NyctEpte	Barbastelle	<i>Myotis</i> bat	Unidentified bat
28/05/2021	147	13		3			2			
29/05/2021	75	4	5		1		1			1
30/05/2021	77	2	4	2				1		1
31/05/2021	213		10	1						2
01/06/2021	135	3	4	1	1		1		2	
02/06/2021	368	26								3
03/06/2021	320	4	9	3		1	1			5
04/06/2021	243	8	10	1					1	1
05/06/2021	345	4	10	1			3			
06/06/2021	413	14	1	1			2	7		