

Appendix 13-10 TVP P&R Scheme Bat Static Data

Site Attendance Record / Summary						
Project Name	Thames Valley Park and Ride					
Project Number	70012699					
Recording period:	6 th , 7 th 8 th and 9 th July 2015					
Time of Visit	Start: 6 th July 2015 21:21 End: 9 th July 2015 04:58					
Weather	See Table 1 below					
Record of Site Visit						
<u>Summary</u>						
Bat activity monitoring at a fixed location occurred as planned during the night-time periods between the 6th and 9th of July 2015. An automated Song Meter 2 (SM2) detector was left in situ to record bat activity levels between sunset and sunrise. In total call recordings characteristic of three species were recorded during the surveys; common pipistrelle <i>Pipistrellus pipistrellus</i>, soprano pipistrelle <i>Pipistrellus pygmaeus</i> and noctule <i>Nyctalus noctula</i>, in addition to calls identified to genus level only from an unidentified pipistrelle species <i>Pipistrellus sp.</i> with a peak frequency of 50kHz, which could be either common or soprano pipistrelle.						
<u>Weather Conditions</u>						
Table 1: Weather Conditions during Survey Period ¹						
Date	Sunset time	Sunrise time (next day)	Max Temp (°C)	Max Temp (°C)	Mean Temp (°C)	Rainfall (mm)
06/07/15	21:21	04:56	20	11.9	12	0
07/07/15	21:21	04:57	17.1	10.4	15	0
08/07/15	21:20	04:58	17.1	11.3	14	1
<u>Activity Data</u>						
Data for the three night period in total is summarised in Table 2, and for each night in Tables 3, 4 and 5, to indicate general activity levels and species diversity through the night time period. Activity was dominated by soprano pipistrelle which accounted for over 80% of calls recorded; social calling was also recorded for this species. A relatively high proportion (12%) of pipistrelle species calls was also recorded. The earliest pipistrelle call was recorded at 21:56 (a soprano pipistrelle 36 minutes after sunset) and the latest at 04:28 (a soprano pipistrelle 29 minutes before sunrise). Pipistrelles typically emerge 20-30 minutes after sunset; it is therefore possible that a soprano pipistrelle bat roost is located close to the survey area. Noctule calls made up less than 1% of the overall calls; the earliest noctule call was recorded at 21:45 (25 minutes after sunset) and the latest at 01:59 (2 hours 58 minutes before sunrise). Noctules are typically one of the first species to emerge, leaving their roosts from sunset onwards. To provide context to the results, the level of use of the Site by different bat species has been categorised by examining the frequency of calls of each species, using the following categories²: • Very frequent – recorded on all or most nights with high numbers of calls/levels of activity; • Frequent – recorded on all or most nights but with medium numbers of calls/levels of activity;						

¹ Obtained from weather underground (wunderground.com) for nearest available weather station Crowthorne

² Please note this is not a recognised/formal classification system, but intended to provide context to an otherwise numerical dataset.

- Regular – recorded on most nights but with low numbers of calls/levels of activity;
- Infrequent – scattered records through the survey period, generally low numbers of calls;
- Very infrequent – very few calls recorded on a low number of occasions; and
- No confirmed activity – no confirmed bats of this species recorded in this survey area.

The survey recorded nearly 700 calls from soprano pipistrelle over a three night period, so can be said to frequently use the Site. As only 44 definitive common pipistrelle calls were recorded over a three night period, they can be said to infrequently use the Site. Finally, as only three noctule calls were recorded over a three night period, so the species' use of the Site is very infrequent.

Table 2: Analysis to Indicate Activity Levels / Species Diversity during the night-time period 6th – 9th July 2015

Species	No. of calls	Proportion of calls	Earliest call	Latest call
Common pipistrelle	44	5.20%	22:36:50	04:10:05
Noctule	3	0.35%	21:45:26	01:59:50
Pipistrelle species	104	12.29%	21:57:35	04:12:14
Soprano pipistrelle	694	82.03%	21:56:29	04:28:10
Social calls	1	0.12%	-	-
Grand Total	846	-	-	-

Table 3: Analysis to Indicate Activity Levels / Species Diversity between dusk 6th – dawn 7th July 2015

Species	No. of calls	Proportion of calls	Earliest call	Latest call
Common pipistrelle	12	4.72%	22:36:50	03:53:23
Pipistrelle species	16	6.30%	01:51:12	04:12:14
Soprano pipistrelle	226	88.98%	22:23:27	04:18:44
Grand Total	254	-	-	-

Table 4: Analysis to Indicate Activity Levels / Species Diversity between dusk 7th – dawn 8th July 2015

Species	No. of calls	Proportion of calls	Earliest call	Latest call
Common pipistrelle	26	9.09%	23:57:52	04:10:05
Noctule	1	0.35%	01:59:50	01:59:50
Pipistrelle species	65	22.73%	22:30:30	04:09:56
Soprano pipistrelle	193	67.48%	22:05:57	04:28:10
Social calls	1	0.35%	-	-
Grand Total	286	-	-	-

Table 5: Analysis to Indicate Activity Levels / Species Diversity between dusk 8th – dawn 9th July 2015

Species	No. of calls	Proportion of calls	Earliest call	Latest call
Common pipistrelle	6	1.96%	22:46:23	03:49:58
Noctule	2	0.65%	21:45:26	22:41:37
Pipistrelle species	23	7.52%	21:57:35	01:52:25
Soprano pipistrelle	275	89.87%	21:56:29	04:09:46
Grand Total	306	-	-	-