



**RESPONSE TO WREXHAM COUNTY BOROUGH COUNCIL
LAND TO THE EAST OF BOTTOM ROAD, SUMMERHILL**

Delta-Simons Project Number: 16-0267.01

Dated: 24th October 2016

This Technical Note has been written in response to the ecological consultation response prepared by Emma Broad of Wrexham County Borough Council (dated 30th September 2016) for the outline planning application for 59 residential dwellings at land to the east of Bottom Road, Summerhill (P/2016/0738, the 'Site').

The ecological consultation response objects to the development on the grounds of both the loss of an ecologically and historically important hedgerow, resulting in a loss of Welsh Priority habitat, and the potential impacts on bat activity, specifically that of noctule bat, at the Site.

The hedgerow within the northern section of the Site qualified as being 'Important' under the Hedgerow Regulations 1997, due to its age (being over 30 years old), and the presence of 'Woodland Species' (Schedule 2) within the ground flora. The hedgerow itself was assessed as being species-poor, since no more than four 'Woody Species' (Schedule 3) were recorded within the hedgerow in any 30 m section. However, although in patches, the ground flora included occasional common dog violet, bluebells, lords-and-ladies and wood avens (all Woodland Species), such that in at least one location there were at least three of these species within one metre, in any direction, of the outermost edges of the hedgerow such that the hedgerow qualified as 'Important'. Approximately a 200 m length of the hedgerow was classed as 'Important,' and the proposed realignment will result in the loss of approximately a 30 m of this.

It is proposed that sections of hedgerow will need to be removed, including the 30 m length of 'Important' hedgerow mentioned above, in order to realign the road and implement passing places for reasons of public health and safety. Any sections of hedgerow to be removed will be re-planted with a variety of locally sourced native woody species, together with climbing plants, which are typical of the local area, therefore, increasing the species and structural diversity of the hedgerow. Therefore, overall the hedgerow removal will have little impact on the ground flora as the majority of the mature hedgerow will be retained. Alternatively, sections of the hedgerow can be retained through translocation to facilitate the new road layout and implementation of passing places, however, due to the age and size of the hedgerow sections to be moved this may not be the most appropriate option.

The second objection was in the relation to the levels of bat activity at the Site and the possible impact the loss of a boundary hedgerow would have on bat activity, specifically noctules. As requested by Ms. Broad, the data summarised in the bat transect Report Delta-Simons Project Number 16-0267.01) has since been analysed using the bat activity index to estimate relative bat activity at the Site.

Bat activity recorded on the static detectors is presented as both passes per hour and passes per night. This is calculated as follows:

$$\text{Bat Activity Index} = \text{Number of Bat Passes} / \text{Unit Time}$$

Table 1 Bat Passes per Hour

(*Number in parentheses represents bat passes per night)

Species	Average number of passes per hour per night for each Survey		
	May	June/July	September
Common pipistrelle	9.39 (*82)	15.5 (116)	2.97 (36.8)
Soprano pipistrelle	1.08 (9)	0.83 (6.2)	4.06 (50.4)
Noctule	0.6 (5)	0.96 (7.2)	0.06 (0.2)
Myotis	0.39 (3.2)	0.05 (0.4)	1.18 (14.6)
BLE	0.1 (0.8)	-	0.03 (0.4)

From Table 1, above, it is evident that the levels of bat activity for all species are generally low from the average numbers of bat passes recorded per hour, however, when noctule bat is specifically considered, bat passes recorded per hour are particularly low.

It is anticipated that the hedgerow removal and construction of 59 dwellings and associated infrastructure will not impact on the possible noctule roost near to the Site, since the average bat passes per hour for noctule in May and July was 0.6 and 0.96, respectively, therefore, indicating that noctule were commuting / foraging over the Site infrequently. Also, of greater relevance is that fact that noctules are a fast and high flying bat species, at speeds of 50 kmph at heights up to 50 m, but also up to several hundred metres (Dietz *et al*, 2009), and will commute/ forage exclusively over open habitat such that they do not rely on hedgerow boundaries for foraging opportunities.

Noctules, like both common and soprano pipistrelles, are tolerant to lighting and will exploit street lights to optimise their foraging success rate and, therefore, the increased lighting within the Site as a result of the proposed development, is anticipated to have a negligible adverse impact on noctule foraging / commuting behaviour.

Recommendations for lighting during both the construction and operational phases have been addressed in Recommendations 1 and 2 of the Bat Transect Report (Delta-Simons project number 16-0267.01), such that any potentially adverse impact on all other bat species that have been recorded in the local area, including those less light tolerant species, can be successfully mitigated.

Should you have any queries please do not hesitate to contact either of the team below:

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References

Dietz. C., Nill, D., and Von Helversen, O. (2009) *Handbook of the Bats of Europe and Northwest Africa*, A & C Black Publisher.