



Cyngor Cefn Gwlad Cymru Countryside Council for Wales

JUSTIFICATION FOR THE USE OF A 10KM BUFFER AROUND THE USK BAT SITES SAC.

Introduction

The Usk Valley area contains one of the largest maternity roosts for lesser horseshoe bat as well as a number of important hibernacula in caves in the area. The area contains up to 5% of the UK population, though counts in hibernation sites suggest that this may be an underestimate. The Usk Bat Sites SAC is notified primarily for the lesser horseshoe bat –an annex II species feature, but also has a number of other qualifying features, namely European Dry Heaths, Degraded raised bogs still capable of natural regeneration, Blanket bogs, Calcareous rocky slopes with chasmophytic vegetation, Caves not open to the public, and Tilio-Acerion forests of slopes, screes and ravines.

Lesser horseshoe bats from the Usk Bat Sites SAC populations are known to use northern parts of Blaenau Gwent. Although one of the qualifying features of the Usk Bat Sites SAC is ‘Caves Not Open to the Public’, on account of their use for hibernation by a range of bat species, of those species, only the lesser horseshoe bat is considered to be at risk from development in Blaenau Gwent.

As the Inspector’s questions only relate to the bat interest of the SAC, other SAC features are not dealt with in this paper. We consider that they are adequately addressed in the Habitat Regulations Assessment of the Local Development Plan (LDP).

Potential impacts that could affect the SAC Lesser horseshoe bat populations include:

- **Loss of roosts:** a number of different roosts are used within the populations range
- **Loss of foraging habitats:** is considered to be responsible for the historic decline of lesser horseshoe bats. Foraging habitats can be lost or fragmented through changes in land use or farming practices or the removal/part removal/breaching of linear features such as hedgerows, for example to accommodate development.
- **Loss of connectivity/flight lines:** lesser horseshoe bats are heavily dependant on following linear features within the landscape to navigate between roosts and foraging areas.
- **Disturbance:** This bat species is sensitive to **physical and noise disturbance** whilst roosting or hibernating.
- **Light:** This bat species is relatively intolerant of light including **artificial lighting**, particularly in close proximity to roost sites or along established linear corridors used for commuting/foraging.

Lesser Horseshoe Bat Ecology

During the summer, lesser horseshoe bats form maternity colonies, generally in undisturbed areas of old rural buildings, and forage in mixed deciduous woodland, woodland edges, scrub, hedgerows and treelines. Associated pasture and water courses can be an important source of the prey items, although foraging flights away from wooded cover appear limited. Such mixed land-use, especially on south-facing slopes, favours beetles, moths and other insects on which the bats feed. In winter they depend on caves, abandoned mines and other underground sites - including cellars and ice-houses of old manor houses - for undisturbed hibernation. Bats will emerge to forage during winter in mild conditions (above 6° C). A series of other roost sites will also be used by a population, including some only for night roosting during foraging.

Current knowledge on population range is incomplete relying on a limited number of radio tracking studies from summer sites and evidence of roost linkage from ringing studies. Studies have shown most foraging to be within 2 - 3 Km of the maternity roost, but with areas at greater distances, typically 4-5 Km, being used. The quality and concentration of suitable foraging habitat will affect foraging distances as does the availability of suitable night roosts. Where habitats are fragmented, linear features such as hedgerows form important corridors between roosts and foraging areas.

In the autumn bats from maternity colonies disperse, with small numbers occupying a large number of roosts close to suitable foraging areas. This avoids heavy competition for food and allows the bats to gain weight prior to hibernation. It is unlikely that current roost knowledge includes all roosts used.

Winter hibernation roosts may be close or at considerable distance (20- 30km) from maternity roosts. Foraging range around winter sites is unknown, but is likely to be smaller than that for maternity roosts.

For the purposes of a screening distance from the SAC boundary, it is principally foraging range that needs consideration, the SAC site having been selected principally for its roosts. Notwithstanding that, outlying roosts probably exist within the foraging range. Impacts which could have adverse effects are most likely within 5km of the site. Likelihood of significant effects decreases beyond that point and by 10km there are unlikely to be significant effects on the SAC population for all but the most significant developments which have the potential to cause major landscape scale disconnections where there is a critical pathway present. Therefore, for the purpose of assessing proposals in plans such as LDPs, a 10km buffer zone should be regarded as a reasonable precautionary distance for applying measures to reduce the risk of damage or deterioration to the SAC to ensure that its integrity is not adversely affected.

Avoidance, Cancellation and Mitigation Measures for potential wider impacts

Key measures for protecting and ensuring no damage or deterioration to the SAC population of Lesser Horseshoe Bats include;

- Ensure that plans, policies and project proposals seek to avoid injury and/or death to bats or damage, destruction and/or disturbance of places of shelter or protection - typically referred to as 'roosts'. Where no information exists on the presence of bats with respect to a plan or development proposal and where it is likely that suitable bat habitat/resource would be affected to a degree that has potential for a significant affect, it is important to carry out bat surveys as early as possible to establish whether or not these bat species are present, and the likely impacts of the proposals on them.
- Avoid loss and disturbance to bat hibernation sites including derelict and old buildings, cellars, mines, caves and other underground sites. Generally bats hibernate from November until April, but may use these roosts over a longer period.

- Avoid loss, damage and fragmentation (including that arising from inappropriate lighting) to foraging areas used by bats e.g. woodland, scrub, hedgerows, pasture and tree lines along field boundaries as these areas support bat prey and provide 'perch' sites and travel routes for the bats.
- Where a plan or development proposal cannot avoid loss of foraging habitats consideration should be given to the enhancement of retained foraging habitat in the surrounding area. This should be based on an understanding of the distribution and ecological requirements of the species.
- Ensure best practice in drawing up mitigation plans for plans/proposals affecting lesser horseshoe bats and compliance with relevant legislation.

To comply with Regulations 61 and 102 of the Conservation of Habitats and Species Regulations 2010, the impact of a plan or project proposal will need to be considered on a case-by-case basis, using guidelines developed between the local planning authority (LPA) and CCW on the likely impacts of particular policies/developments on the SAC's features in the area. For most developments CCW anticipate that this will involve an initial screening exercise based on the nature, scale and location of the project proposals and will only require 'appropriate assessment' where development is such that likely significant effects can not be ruled out.

Species of relevance to consideration of impacts on the Usk Bat Sites SAC

The lesser horseshoe bat feature is the only species of relevance to the HRA of the Blaenau Gwent LDP (See above under introduction). Any other potential impacts of the Plan on the habitat features of this site and the mitigation measures identified, is covered in the Blaenau Gwent CBC Deposit LDP HRA appropriate assessment report (April 2011).

Validity of the Blaenau Gwent LDP HRA

Blaenau Gwent applied the above precautionary approach to assessing potential impacts from general development within the LDP on the lesser horseshoe bat feature of the Usk Bat Sites SAC. In addition, as part of our response to the Plan HRA, CCW highlighted a small number of allocations (MU1, EMP1.5 and EMP1.8) which might lead to specific likely significant effects in combination with each other and proposed works on the A465 (see CCW response to Blaenau Gwent Deposit LDP HRA Appropriate Assessment Report, 14th June 2011). However, given that the Blaenau Gwent LDP incorporates suitable precautionary mitigation measures (DM15, DM16 and focussed change FC 5.1 to MU1) to address the potential significant effects identified in the HRA, CCW agrees with the conclusion of 'No likely significant effects'.

Further Information and references

Natural England Bat Mitigation Guidelines

<http://www.wildlifegateway.org.uk/site/pdfs/naturalEngland/Batmitigationguide2.pdf>

BCT Advice Note on Bats & lighting.

Guidance for identification/management of Horseshoe flight lines in foraging areas. Appendix in: Billington, G. & Rawlinson, M. D. (2006) Report on Horseshoe bat flight lines and feeding areas. CCW Science Report No. 755, CCW Bangor.

A Review of Bat Mitigation in Relation to Highway Severance 2011, Highways Agency

Also the review of Consents for Gwynedd CBC and Pembrokeshire CC Lesser Horseshoe Bat pilot.

Schofield, H., Messenger, J., Birks, J. and Jermyn, D (2002) Foraging and roosting behaviour of the lesser horseshoe bats at the Ciliau, Radnor – The Vincent Wildlife Trust, Ledbury

Smith, P. and Morgan, P (2004) Radio Tracking of lesser horseshoe bats from Agen Allwedd cave (Craig y Ciliau NNR) Spring 2003 – Smith Ecology for the Countryside Council for Wales

Smith Ecology Ltd (2007) Radio tracking of lesser horseshoe bats on A465 sections 1, 2 and 3 in 2005 – 2006. Smith Ecology Ltd. For Jacobs UK Ltd.