

From: Rankine, Miles
Sent: 05 April 2013 09:48
To: King, Kristina
Subject: RE: Swanmore
Hi Kristina

Just in...

Hopefully this should close off the eco concerns.

With regard to reptiles, I'm not sure what else to add. The report states:

5.10 Slow-worms often like thick ground vegetation as they bask less often than other British reptiles. Scrub, and habitats influenced by man, such as gardens can also be good habitat for Slowworms.

The retention and/or creation of long unmanaged grassland areas, preferably with some gorse or other scrub vegetation will be beneficial to the Slow-worms on the site.

5.11 Temporary displacement of habitat will be necessary along the south-western boundary to install the proposed sewer. This will involve strimming (as below) and lifting of turf to an agreed working width. Once the sewer is installed, the turf will be reinstated and allowed to re-establish, as per the landscape scheme.

5.12 Notwithstanding the above, a strip of grassland at least three meters wide should be left unmown along the existing hedgerow boundaries. Two log piles along each boundary line should be constructed to provide additional shelter for reptiles. The log piles and areas of un-mown grassland should be maintained following the completion of construction works on site to permanently enhance the reptile habitat on site. There is also considerable reptile habitat in the adjacent fields, especially to the north, that will be able to support the low population on site during the construction phase of the development, if necessary.

5.13 Appropriate landscape planting would be highly beneficial to creating habitat links for reptiles. This is accommodated within the proposed planting scheme for the site.

5.14 Although the majority of habitat on site is of low quality for reptiles, it is still recommended that vegetation beyond the buffer zone detailed above, should be progressively strimmed in stages, starting at the centre of the site and moving towards the retained hedgerow boundaries to encourage any reptiles present to move to these areas. A first cut should be made to approximately 15 cm with a second cut to ground level the following day. This will enable any reptiles present to move away of their own accord.

5.15 The vegetation clearance should be carried out at an appropriate time of year when reptiles are mobile (April to September in good weather conditions).

5.16 It is recommended that a temporary reptile exclusion fence is erected around the perimeter of the site during the construction activities to prevent reptiles from re-colonising the site during construction activities.

The drawing shows the line of reptile exclusion fencing being positioned 3m away from the boundary. This would be erected outside the site perimeter fence, following strimming and before earth works commence. If proposed planting is a concern to the habitat then it could either be managed, or excluded - both of which could be conditioned. We're also proposing to allow areas of long grass to develop, which would significantly improve the habitat within site.

Lighting would be only be used when the pitch is lit, with lights directed down onto the pitch (hence the height).



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As for S.E., Lee's been the one driving this, so I'll speak to him.

*Regards
Miles*



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Our Ref: JSL1965-L-01
Your Ref: HCC/2012/0405

E-mail: murphys@rpsgroup.com
Date: 4th April 2013

Miles Rankine
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Dear Miles,

Change of use of a horse paddock to an all-weather Synthetic Turf Pitch (STP) with floodlighting and associated works, including a grass rugby pitch (Swanmore College of Technology)

Response to HCC ecologist comments in relation to planning application at Lower Chase Road, Swanmore.

Dear Miles

Thank you for forwarding the comments from the HCC Ecologist in relation to the protected species issues at the site. I want to pick up some of the issues raised by your ecologist in relation to comments on aspects of the survey, in particular survey effort and interpretation of results. The initial Phase 1 Habitat Survey (Hampshire Ecology 2011) noted that the site had no potential for roosting bats but did have potential to be used by commuting bats from roosts outside of the proposed site boundary. Our bat surveys were designed in line with guidelines produced by the Bat Conservation Trust (2007) Bat Surveys – Good Practice Guidelines 1st edition, in order to specifically address the two issues:

1. Are the hedgerows on site likely to be used by commuting bats
2. Are the habitats within (paddock) and adjacent (hedgerows) to the site used by foraging bats

Survey Design

We considered that the Swanmore site is low to medium quality for bat activity. The site is approximately 1.3ha in size and the majority of which is species poor grassland (which is over-grazed and poached in areas), and species-poor hedgerow. Therefore, it was considered unlikely that the site would support large numbers of foraging bats given its size and the quality of habitat, but the potential for the hedgerows on site to be used by commuting bats was an issue we specifically addressed in our study design. We designed the study based on the existing guidelines at the time (Bat Conservation Trust 2007). Guidance for manual bat activity surveys within the 1st edition (2007) simply suggests two or three surveys, carried out ideally spaced over the period May-September for medium-high quality sites. Higher levels of effort were only suggested when particularly rare or threatened bat species were likely to be present. The 2007

guidance contains very little on timing and frequency of automatic surveys but we considered that placing an automated recorder (Anabat) on the hedgerows on each of the manual activity surveys for the duration that survey would answer the question as to whether the hedgerow functions as a flight line to roosts off site, as it would provide a measure of activity in terms of bat passes at the critical time when bats emerge from their roost.

We designed the surveys in Feb/March 2012, had the purchase order approved with HCC and booked in the surveys for an appropriate time of year (i.e. June & July 2012 when bats are active and if the hedgerows are used an important flightlines activity would be high). In April 2012 the BCT Guidelines were updated and the biggest changes to the guidelines were in relation to the level of survey effort for sites over 1 hectare. The guidelines specify one visit per month during April to September for medium quality sites, and up to two visits per month for high quality sites. Thus, in effect, the guidelines recommend 6 to 12 visits over a minimum period of 6 months. For low quality sites, the guidance is similar to the previous edition, namely 2 to 3 survey visits. The updated 2012 guidance in relation to automated activity surveys now also included minimum standards for such surveys. For example, for a medium-sized, medium quality site, data should be collected for 3 consecutive nights per month (April-September) at one location 'per transect'. Thus, for a site requiring 4 transects to cover all habitats, a total of 72 nights of data collection is recommended.

We had detailed discussions with BCT and other consultants at the time in relation to sites where we already had surveys started / planned for planning applications and received purchase orders from clients. The response from BCT at the time was that *'these are survey guidelines and should not be taken as verbatim and the level of survey effort should in part be based on surveyor experience and their interpretation of the quality of habitat on site. If a consultant starts a survey on a site and finds that there is low bat activity after reasonable survey effort, at an appropriate time of year, is carried out then an evaluation of the sites potential to support foraging and/or commuting bats can be carried out. Conversely if a consultant finds after a number of surveys that there is high bat activity then it may be necessary to revise survey level upwards'*

Given that the majority of the site is unsuitable bat habitat (at the time of survey the grassland was heavily over-grazed within only small strips of longer-tussocky grass along the perimeter) and only two specific areas of the site function as bat flightline potential (a species poor hedgerow of 103 metres in length and 3 metres in width and a species poor hedgerow of 167 metres in length and 2 metres in width) we considered that the level of survey effort planned (i.e. three visits) was likely to be appropriate for this site, but would re-consider based on the survey results in June and July 2012.

Survey Result Interpretation

I note the HCC Ecologist considers our interpretation of the results confusing. We carried out three manual bat activity transects. Given the small size of the site these transects did not take a long time to complete (a maximum period of one hour) but we ensured that on each evening we started at sunset and walked as slow as possible to ensure that any bats that are likely to be present were picked up. Given the small size of the site we had considered duplicating transects (i.e. walking them on the same night in reverse)

but after consideration of the value (meaning) of transect surveys we ruled this out as an unscientific approach, given the potential for recording the same individual twice.

We considered that placing an Anabat on the hedgerows on each of the manual activity surveys for the duration that survey would answer the question as to whether that hedgerow functions as a flight line to roosts off site as it would provide a measure of activity in terms of bat passes around the critical time bats emerge from their roosts. This does not give an abundance of bat species (i.e. a single bat could be foraging in the vicinity of the detector creating multiple bat passes) but if the feature (i.e. hedgerow) is likely to be of import for bats either for foraging or commuting then the relative level of activity would be high. The results of the automated surveys recorded the following levels of activity:

- 28.06.12 – Four Common Pipistrelle bat passes between 21:24 and 22:30. No other species recorded.
- 09.07.12 – Two Common Pipistrelle bat passes between 21:20 and 22:25. No other species recorded
- 18.07.12 – Six Common Pipistrelle bat passes and two Soprano Pipistrelle bat passes between 21:20 – 22:30.

In quantifying bat activity 10 or less bat passes during a three-minute recording period is considered low bat activity (Swift, 1980; Russ & Montgomery, 2002).

In reviewing our survey report results, raw data, site photographs, aerial photographs and our interpretation I am confident that we have made the appropriate assessment of the site in terms of its value for commuting and/or foraging bats. It is considered that although bats currently use the site, it is used by low numbers of common species that are not particularly light sensitive. The report concluded that the site is used by commuting bats (i.e. low numbers of individual common species) and makes recommendations to avoid the impact of the scheme to those commuting bats.

Impact of the scheme

The proposed scheme offers the opportunities to increase the value of the site to foraging bats by strengthening existing hedgerows, planting new hedgerows and habitat enhancement / manipulation along the perimeter of the site. The HCC Ecologist has raised valid concerns about the 'significant lux increase' in the south-east corner of the site and recommendations are provided in the report to reduce light spillage as specified by the BCT Bats and Lighting Guidelines (BCT 2009). Therefore a more detailed impact assessment is provided as follows in relation to the proposed scheme.

The majority of species recorded on site were Common Pipistrelle and Soprano Pipistrelle (apart from one Myotis species bat pass on one occasion along the northern boundary of the site). Both Common Pipistrelle and Soprano Pipistrelle are the most common bat species found in England and Wales. These species are frequently found in built up areas and are generally tolerant of lighting, even feeding on insects that are attracted to lights. There is already some lighting around the site from the school buildings and street lighting in the surrounding area so the bats using this site are already habituated to a certain degree of lighting.

Bats hibernate during the winter and are less likely to be foraging on site during the winter months (November to March) when the proposed flood lights are likely to be used most frequently. However, the following impact assessment is based on the lights being used at dusk or after dark during the summer months (April-October).

Based on the survey findings it is anticipated that the proposed floodlighting will have minor disruption of foraging and/or commuting for very small numbers of Common Pipistrelle and Soprano Pipistrelle bats when the lighting is in use. This impact is considered to be low at the local level and negligible at the county/national level. Populations of Myotis species are likely to be small, given the infrequency of bat passes recorded and therefore the impacts of the scheme are likely to be negligible. However, it should be noted that this assessment is based on a snap shot of three surveys and, therefore, it is possible that other more light sensitive species, for example Brown Long-eared bats, do use/pass through the site on occasions. Therefore it is recommended that effort is made to minimise the impact of the proposed lighting scheme.

In order to minimise the impact of the proposed floodlighting scheme on bats, the following recommendations have been made:

- Lights should be switched off when not in use.
- Effort should be made to minimise light spill, especially onto features which bats use for foraging. This could partially be achieved by ensuring that lights are directed downwards onto the pitch

If you require any further information or clarification, please do not hesitate to contact me.

Yours sincerely
for RPS



Dr Stephanie Murphy BSc (Hons), MSc, PhD, MIEEM
Senior Consultant Ecologist

References

- BCT (2007) Bat Surveys – Good Practice Guidelines 1st edition.
BCT (2009) Bats and Lighting. Bat Conservation Trust
BCT (2012) Bat Surveys – Good Practice 2nd edition.
Russ, J.M. & Montgomery, W.I. (2002). Habitat Associations of Bats in Northern Ireland: Implications for Conservation. *Biological Conservation* 108, 49 – 58.
Swift, S.M. (1980). Activity Patterns of Pipistrelle bats (*Pipistrellus pipistrellus*) in north-east Scotland. *Journal of Zoology (London)* 190, 285 – 295.