

REVIEW OF ENVIRONMENTAL STATEMENT OF THE WEST LINSLADE URBAN EXTENSION IN RELATION TO BATS (Chiroptera)

A report prepared for South Bedfordshire Friend of the Earth
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1. Introduction

1.1 This report is prepared for South Bedfordshire Friends of the Earth following concerns expressed over the proposed urban extension and its impact on a range of ecological issues. This report deals specifically with bats as it is considered that the Environmental Statement produced as part of the Environmental Impact Assessment process for the urban extension is deficient in information relating to the presence of bats.

1.2 It is also considered that the subsequent evaluation of the site and impact assessment of the scheme in relation to bats potentially affected by the proposals is flawed due to the possibility that these processes are based on insufficient information.

1.3 The objectives of this report are to:

- Review the Environmental Statement's supporting information in respect of bats and consider whether there is sufficient information to make an adequate assessment of the impact of the development proposals on local bat populations.
- Investigate whether best practice methods were adopted to obtain the necessary information to assess the value of the site to bats and subsequent detrimental impacts as a result of the proposed development.
- Consider whether the ES and supporting technical appendix has made a sufficient evaluation of the importance of the area to bats and a reasonable impact assessment of any adverse consequences to local bat populations resulting from the urban extension.
- Highlight the legal and policy obligations of the local planning authority when determining the proposed urban extension proposal and its potential impact on local bat populations.

1.4 Throughout this report, specific reference will be made to the document produced by the Bat Conservation Trust (2007) entitled 'Bat Surveys' – Good Practice Guidelines' (BCT 2007). These guidelines have been produced in collaboration with of the UK's statutory nature conservation agencies e.g. Natural England, and are currently considered to reflect best practice.

1.5 This report has been prepared by Dr Ian Davidson-Watts, who is an experienced and skilled bat researcher with first hand knowledge of bats in the UK. Annex 1 details his relevant skills and experience.

2. Review of the Environmental Statement (Chapter 8) and associated bat surveys for the West Linslade Urban Extension (Technical Appendix to Chapter 8).

2.1 Desk study and scoping

2.1.1 The ES and associated bat surveys for the proposed urban extension considered bats at an early stage. In the ES and Technical Appendix there is evidence that studies for bats were scoped and desk studies undertaken by consulting the local bat group and receiving advice from Natural England and the local authority ecologist.

2.1.2 A 1km radius desk study was carried out to obtain records of bats in the vicinity of the proposed site. BCT (2007) suggest 1km radius to be the minimum requirement for potential developments affecting bats, however given that this proposal will significantly alter over 40 ha of potential foraging, roosting and commuting habitat for bats; a wider search for bat records should have been undertaken. This would have ensured the right level of subsequent bat activity surveys.

2.1.3 Ideally the technical report relating to bats should have included the raw data (as an appendix) obtained through the relevant desk studies to enable external scrutiny and interpretation of these data.

2.2 Field survey effort, duration and timing

2.2.1 The proposed urban extension site is dominated with habitats that are known to provide good habitats for bats. This includes wetlands, such as streams and pools, woodlands, tree lines and pasture, which includes marshy grasslands and fens. In addition to these habitats, linear features such as hedgerows have also been acknowledged as important commuting corridors for bats, although in many cases open ground between roosts and foraging areas will also be crossed by bats. Therefore field surveys should have ensured a high level of effort to ensure that adequate information on the level of use of the site by bats could be obtained.

2.2.2 In summary field surveys for the ES of the proposed urban extension consisted of two bat detector surveys for foraging and commuting bats and two emergence surveys of bats suspected to be in buildings on the site in July 2008. Both surveys were carried out simultaneously using six surveyors. A single day time assessment of the entire site was also undertaken to consider potential foraging areas and roost sites.

2.2.2 The BCT guidelines (section 4.5, table 4.6) recommend that for a site with moderate likelihood for bats at least six surveyors should be used to undertake broadband bat detector surveys for a site of this size (between 25-75 ha). The BCT Guidelines also state that this approach is not applicable to emergence surveys. In addition to this the BCT survey guidelines recommend that at least 2/3 surveys are undertaken between May and August, with an optimum period of June to August, but the guidelines add that best practice is to space the surveys evenly throughout the period and include at least one dawn survey.

2.2.3 It appears that the effort and timing of the field bat surveys associated with the ES falls way short of the recommended minimum bat survey guidelines for the following reasons:

- a) Insufficient surveyors were used as six surveyors would have been required. Although six surveyors were quoted in the report for each survey, two of these surveyors were utilised for simultaneous emergence surveys. Therefore there was insufficient coverage of the site during the first two hours of the bat detector surveys. This is an optimum time for bat commuting and foraging as this period coincides with the greatest density of insects (Bullock et al 1987).
- b) The two bat detector surveys were both undertaken in July and these surveys were only 11 days apart. This approach has not spread the survey effort throughout either the active season or the optimal period (June to August) as recommended by the BCT guidelines. Bat behaviour in the landscape changes throughout the year and even from month to month, depending the availability of insect prey and the breeding status of bats. For instance studies of Pipistrelle bats in southern England (Davidson-Watts in prep) showed that roost switching would take place just after giving birth (june/july) to enable access to better foraging grounds during this energy demanding stage in their life cycle. Activity within a variety of habitats is also known to change seasonally. In addition to this the survey effort associated with the ES in no way takes account of the

commencement of the mating season in August, where male bats of certain species become highly conspicuous through behaviour such as song flighting (Park et al 1996) to attract females. Surveying during this time of year often leads to the discovery of mating roosts.

- c) The duration of the surveys were also insufficient in that a dawn survey was not undertaken in line with the BCT guidelines.
- d) The assessment of trees in relation to bats does not have a method statement and in addition a climbing survey of all potential bat roosts in trees should have been undertaken, as tree roosts are the most difficult of all bat roost to detect.

2.2.4 In line with the issues outlined above, the emergence surveys of the buildings directly affected by the proposed urban extension were also insufficient in that that have not taken account of the temporal aspects of bat behaviour. This is particularly relevant to the property where access was limited, as other signs of bat internally such as droppings could not be detected.

2.2.5 Perhaps the most disappointing aspect of this particular issue relates to how other species groups are dealt with in terms of survey effort. Although the following have less protection than bats; birds get three surveys over a three month period evenly spaced, common reptiles get eight surveys over a three month period evenly spaced and amphibians, where only one species of this group enjoys the same high level of protection as bats, get four surveys over a two month period, again evenly spaced. For some reason it appears that the ecologist advising the ES have decided for bats, a group of species with greater protection than most, a group of species that are poorly understood, that are more mobile and more difficult to identify and locate, that less survey work and effort was actually required than for the other species groups.

2.2.6 In conclusion, the bat surveys in support of the ES of the West Linslade Urban Extension did not follow the minimum requirements of the nationally accepted best practice guidelines. It is therefore highly likely that the existing dataset relating to the use of the site by bats is wholly insufficient to make an objective valuation of the sites' importance to bats as the surveys were not carried out with sufficient effort, despite the site being of moderate to high potential for bats. This current lack of data will also undermine any impact assessment of the proposed urban extension on bats and at present it will not be possible for the local planning authority to make and adequate

assessment of whether the development proposals will detrimentally affect the favourable conservation status of bat species using or adjacent to the site.

2.3 Results and evaluation

2.3.1 The results of the limited surveys presented in the ES are in turn limited and not unexpected given the low level of survey effort across the site. The building assessment found no evidence of bats yet the survey was only 50% effective as only one of the two buildings with potential to support roosting bats could be accessed. In addition the emergence surveys only took place during one narrow part of the year and therefore have not taken account of the temporal and mobile nature of bats. Ultimately at least one building on the site remains high potential support a bat roost, and has yet to be assessed.

2.3.2 The emergence surveys did note a single bat emerging from an oak tree. However no further follow up was undertaken to determine whether this was a male mating roost (by undertaking surveys in August), or a transitory roost. Therefore the status of this roost is unknown and could be of greater significance than the current evaluation indicates. In addition there is no evaluation or results relating to any other potential bat roosting tree of the site, despite a large number of trees being present. Therefore the status of potential bat roosts in trees both within and adjacent to the site is unknown. This is of particular importance as data associated with publicly available ES/ ecological reports for the Western Linlade Bypass had shown that natterer's bats were using tree roosts in the vicinity of the proposed Urban Extension site.

2.3.3 The results of the activity surveys show that the site was used moderately by bats including, soprano and common pipistrelle bats, serotine, noctule and long-eared bats. The latter three bat species using the site less frequently. The hedgerows and streams had most bat activity and the report also identifies that majority of hedgerows across the site were used by bats for commuting or foraging. It is likely that with a greater survey effort, a better picture of the site would have been established and probably a longer species list. There is no discussion as to the linkage of the site with land adjacent, particularly to New Linlade wood and the ancient woodland Linlade wood to the north east and liscombe Park to the west which has a parkland with mature trees a wetter valley and woodland to the west, which may support important bat populations.

2.3.4 The technical report and ES give the value of the site as of local importance despite the pipistrelle roost receiving a high level of protection. However the evaluation fails to recognise that the soprano pipistrelle, noctule bat and brown long-eared bat, as well as being highly protected under UK and European law, are also on the UK's Biodiversity Action Plan priority species list, and deserve special attention (www.UKBAP.org.uk) In addition the evaluation appears to have forgotten about the legally protected tree roost containing a single pipistrelle bat that requires further investigation.

2.3.5 The proposed site appears to contain a range of habitats that are used by a wide range of bat species for foraging. Wetlands and grazed grasslands, particularly marshy grassland and fens which have been unaffected by agricultural intensification are known to support a number of species including Common and Soprano Pipistrelle bats (Davidson-Watts et al), Serotine bats (Battersby 1999) , and noctules (Mackie and Racey 2007; Rachwald 1992). In addition a number of *Myotis* species including Whiskered and Brandt's bats (Berge 2007) will also utilise hedgerows and unimproved grasslands for foraging. Of the rare species, the long ranging barbastelle bat is also known to use sites containing such habitats for foraging, particularly when wetland areas are bordered by trees (Davidson-Watts and Mckenzie 2006; Greenway 2001). However the evaluation has failed to consider the most recent research relating to the habitat use of these bat species.

2.4 Impact Assessment

2.4.1 The impact assessment fails to identify a number of considerable impacts to bats from the proposed development, and offers no satisfactory solutions to address those impacts. For instance the assessment highlights that 'bats may be roosting on the site', but appears not to assess how significant this issue may be, and simply promotes the use of bat boxes as an 'enhancement'. There is no consideration of what bat species may be affected, the legal status of the roost, the affect on the local population of this species in the area and whether the impact is acceptable. The possibly of bat roosts being present should be confirmed or otherwise prior to the development proposals being approved.

2.4.2 The impact assessment fails to fully assess the impact of the loss of habitat such as wet grasslands and fenland which is utilised by a range of bat species, particular as cattle dung can be a good source of invertebrate prey. Residential

development is unable to compensate for this loss as cattle will no longer be able to graze the areas currently utilised. In addition to this, the wetter habitats will no longer be able to be supported due to residential areas requiring suitable drainage to prevent localised flooding, this will lead to a degradation of the diversity of habitats and as result the loss of diversity of bats currently using the area.

2.4.3 The impact assessment does not consider indirect effects of the development proposals on adjacent habitats such as Linslade Wood and Liscombe Park which may be of even greater importance to tree roosting, commuting and foraging bats. Impacts from construction noise, dust and light pollution and an increase in disturbance from the operation of the new development also need to be addressed as these may deter bats from using commuting routes and foraging areas and well as disturb legally protected roosts.

2.4.4 Finally the impact assessment does not consider the cumulative effects of this development, particularly the very recent impacts associated with the Linslade Bypass which is likely to have already significantly affected the movements and foraging behaviour of local bat populations.

3. Legal and policy obligations to bats during the planning process

3.1 Legal

3.1.1 The Environmental Impact Directive requires that decisions on whether to grant development consent for specific projects are taken in the full knowledge of the project's likely significant impact on the environment. It is important that the authority must obtain all the information it needs to assess and evaluate the likely significant environmental effects of the proposal before it reaches its decision. It cannot adopt a "wait and see" approach or impose a condition requesting further work to identify the likely environmental effects after permission has been granted. It must be sure that all of these have been identified and taken into account before granting planning permission.

3.1.2 This approach was confirmed by *R v Cornwall County Council ex parte Jill Hardy* [2001 JPL 786] in which the applicant carried out an EIA and provided an ES. Although it was known that the conditions at the site were those favoured by a protected species, bats, the applicant did not investigate for their presence as a part of the EIA. The planning authority, advised by English Nature (now Natural England), imposed a condition requiring the applicant to carry out a survey to establish whether bats were present prior to commencing the development. The Court held that this information should have been included in the ES, otherwise the authority could not comply with the EIA Regulations (Regulation 3(2)). The planning permission was quashed after works had already commenced.

3.1.3 Whilst EIA supporting the application does undertake a limited amount of investigation relating to bats, it is quite clear from the arguments presented in this paper show that this work is insufficient to ensure that the planning authority has full knowledge of the effects of the proposals on a material consideration such as protected bat species. Further survey is required to understand the full value of the site to bats and to condition any surveys post planning permission may be considered unlawful. Planning authorities need to exercise care and judgement to ensure that conditions designed to mitigate the likely effects of a proposed development are not used as a substitute for environmental impact assessment or to circumvent the requirements of the EIA Directive.

3.1.4 All bat species and their roosts are fully protected in Britain under the Wildlife and Countryside Act 1981 (as amended) and the Conservation (Natural Habitats &c.) Regulations 1994 (as amended). Taken together the legislation makes it an offence to:

- Deliberately kill, injure, or take a bat.
- Damage, destroy, or recklessly obstruct access to any structure or place used for shelter or protection by a bat
- Deliberately disturb bats, in particular any disturbance which is likely—
 - (a) to impair their ability—
 - (i) to survive, to breed or reproduce, or to rear or nurture their young; or
 - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
 - (b) to affect significantly the local distribution or abundance of the species to which they belong.”;
- Recklessly disturb a bat while it is occupying a structure or place which it uses for that purpose.

3.1.4 The ES supporting the proposed Urban Extension has not addressed the impact on either known roosts or potential roosts from direct or indirect impacts. Notwithstanding concerns that not all likely roost sites have been located due to the low level of effort undertaken to search for roosts in nearby woodlands, Paragraph R.39(1)(b) of the Habitat Regulations states that: ‘*A person commits an offence if he deliberately disturbs animals of any such species* [Annex IV of the Habitats Directive 92/43/EEC (HD) which includes all UK bat species]. Garland and Markham (2007) argue that there is no reference in the Regulations to the location of this disturbance, so it can apply to foraging and commuting sites as well as roosts. Furthermore, the Habitats Committee (established by the Environment Directorate-General of the European Commission (EDGE) to consider interpretation and implementation of the Habitats Directive), advise that Article 12.1(d) of the Habitats Directive should be understood as ‘*aiming to safeguard the **ecological functionality** of breeding sites and resting places*’ (EDGE 2007), which can be interpreted as giving protection to foraging and commuting routes, since these are critical to the functionality of habitat. If it is accepted that a bat roost is of little or no functional value without its associated foraging habitat, then no other interpretation makes sense.

3.1.5 As the proposed development, will disrupt feeding and commuting behaviour of bats in the area as well as damage and destroy roost site, it is likely that offences under the Regulations could be committed by applicants should the scheme be approved.

3.1.6 In addition to the provisions outlined above, Planning Authorities have a general duty to have regard for the purposes of the Habitats Directive (Regulation 3 (4)).

3.1.7 Therefore, should a European Protected Species, such as a UK bat species, be affected by a planning proposal, this duty requires the Local Planning Authority to have regard for the tests of Article 16 of the Habitats Directive when considering a planning application. The following tests should be considered before granting planning permission (i.e. the exercise of their function), that would result in killing, injury or disturbance to a European Protected Species or damage or the destruction of its breeding or resting-place (roost). The tests stated in Article 16, are outlined below:

- That the purpose of the derogation is for public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature....
- Derogation from the protection afforded to bats should not be authorised unless there is no satisfactory alternative (such as alternative forms of generating renewable energy or alternative locations).
- Derogation from the protection afforded to bats should only be authorised if the action will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status.

3.1.8 It could be argued that the proposed development can meet the first test of meeting the imperative reasons of overriding public interest, in that the scheme would support key objectives to meet Government housing targets. However the proposed are unlikely are unlikely to meet the second test which states that the protection afforded to bats should not be authorised unless there is no satisfactory alternative. Clearly moving the development to another location whether there is no risk to bats, would be a satisfactory alternative.

3.1.9 The last test relates to ensuring that the favourable conservation status is not detrimentally affected by the proposed development.

Favourable conservation status of a species is defined in Article 1 of the Habitats Directives as follows:

the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within the territory referred to in Article 2. The conservation status will be taken as 'favourable' when:

- *population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and*
- *the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and*
- *there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis."*

3.1.10 Currently the FCS for the species in highlighted in the ES as being affected by the West Linslade Urban Extension is as follows (taken from JNCC 2007):

Noctule bat	-Unknown
Brown long eared bat	-Favourable
Serotine bat	-Unknown
Common pipistrelle	-Favourable
Soprano pipistrelle	-Unknown

The list shows that only the brown long eared bat, common pipistrelles are considered at favourable conservation status. For the majority of species it is not known whether they are at a favourable conservation status.

3.1.11 The impact assessment within the ES identifies that there will be an impact on bats but the effects are uncertain. The reason that the ES is uncertain of the impacts is as a result of the wholly inadequate level survey work carried out. The ES has therefore

failed to make an assessment as to whether these impacts will detrimentally affect the FCS of the various bat species at risk. It is therefore not possible for the local planning authority to conclude that there will be no detrimental effect on the FCS of the bat species concerned and as a result, planning permission for the Urban Extension should be refused

3.1.12 The Natural Environment and Rural Communities Act 2006 places a duty on public authorities to conserve biodiversity ('the biodiversity duty'). Section 40 states:

- (1) Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.
- (3) Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat.

3.2 Policy

3.2.1 Planning Policy Statement 9 and paragraph 98 of its associated circular *ODPM Circular 06/2005* states that 'The presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.' Paragraph 99 also states that 'It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted otherwise all relevant material considerations may not have been addressed in making the decision.'

3.2.2 The ES has identified that bats are present and likely to be affected by the scheme. However the ES fails to establish the extent to which the development proposals will affect local bat populations. Therefore the local planning authority are duty bound to refuse planning permission until the applicants can establish the extent to which the development will affect local bat populations.

3.2.3 *Planning Policy Statement 9: Biodiversity and Geological Conservation* (PPS9; ODPM 2005) also states that developers must demonstrate that they have considered alternative options to prevent "significant harm" to "biodiversity interests" (including all bat species). It also recommends that where "significant harm cannot

be prevented, adequately mitigated against, or compensated for, then planning permission should be refused.”

3.2.4 The ES has failed to demonstrate that that significant harm to the bat species potentially affected by the proposed development will be prevented, and the ES has also failed to demonstrate that the proposed mitigation measures will be effective in meeting the requirements of FCS. Therefore the local planning authority should refuse planning permission.

4. Conclusions

- 4.1 The West Linslade Urban extension is situated in an area of potential significance for bat species.
- 4.2 The ES and ecological studies supporting the proposals highlights the potential risk to bats from the development. However, as the best practice guidelines to survey bats on such sites were not adhered to, the application fails to provide a sufficiently robust dataset to demonstrate that important bat populations will not be adversely affected by the proposals. This is due to the limited data contained within the ecological study to support the assessment of effects.
- 4.3 The mitigation measures proposed to reduce any risk to bats essentially involve further survey to investigate adjacent habitats with the potential to support bats and should not be considered effective or legally enforceable under planning or wildlife law. All information relating to potential impacts on a material consideration such as protected species should be obtained prior to the granting of planning permission.
- 4.4 Legal and policy obligations under the Environmental Impact Assessment Regulations, the Habitats Directive, national planning policy and local planning policy require the local planning authority to refuse planning permission for this proposal as i) the proposals have the potential to adversely affect important bat populations, ii) the ES does not outline the extent to which these bat populations will be affected and iii) there is no evidence to support the effectiveness of any of the proposed mitigation measures.

5. References

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ANNEX 1

Relevant skills, experience and qualifications – Ian Davidson-Watts

I am currently employed by the Ministry of Defence (MOD) as Head of Environment Department for the Sovereign Base Areas Administration of Cyprus, a UK overseas territory making up approximately 100 square miles of Cyprus. My role is to implement the requirements of the European Union (EU) Habitats Directive within the Sovereign Base Areas of Cyprus and to advise the Administrator (Governor) on all issues associated with sustainable development. I am also a Director of ID Wildlife Ltd which (including a period as a sole trader), has been operating since 1999. ID Wildlife Ltd is an ecological consultancy specialising in bat related survey, training and research; more specifically I have led research in southern England on rare woodland bats for clients including the Environment Agency, the National Trust, English Nature, Hampshire Wildlife Trust and Peoples Trust for Endangered Species which resulted in the designation of two separate Special Areas of Conservation (SAC) for Bechstein's bat and barbastelle bat (including Briddlesford Copse SSSI/SAC). I am also a member of the Bat Conservation Trust's Barbastelle and Bechstein's bat Technical Advisory Group and been actively involved with other leading bat researchers in developing guidance on survey techniques and the management of bats in trees and woodlands.

I have worked for the MOD since 2002. Prior to my current role which commenced in summer 2007, I was Head of Natural Environment Team for Defence Estates (2004-2007), leading a team of 14 ecologists in the provision of ecological advice and support throughout the MOD. From 2002 to 2004 I was MOD's biodiversity policy advisor, specialising in protected sites and protected species. Prior to this I worked for English Nature (a predecessor to Natural England) as Head of Protected Species Licensing (2000-2002) and as a Conservation Officer working on nature conservation issues in Hampshire, Wiltshire and on the Isle of Wight (1996-2000). Both roles in English Nature involved the regulation of activities affecting protected sites and species and as a statutory consultee for planning and licensing applications.

I have a PhD in Zoology from the Open University (2007). My Thesis examined ecological differences between two cryptic bat species in England. I have a Higher National Diploma (Distinction) in Conservation Management from Sparsholt College Hampshire (1996). I have been licensed to study bats since 1995, I have been licensed to train other batworkers since 1997 and currently hold a licence to research pipistrelle

bats, barbastelle bats, Bechstein's bats and greater horseshoe bats. I have published my research on bats in the Journal of Zoology (London) and Biological Conservation. I am member of the Institute of Ecology and Environmental Management and a Chartered Biologist. More recently I undertook and authored a study investigating the distribution of rare woodland bats on the Isle of Wight (2008).