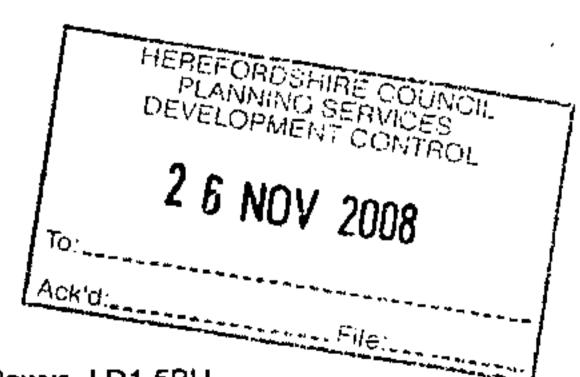
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BARNS AT UPPER FOXHALL FARM PHOCLE GREEN, ROSS-ON-WYE HEREFORDSHIRE

BAT SURVEY & MITIGATION STRATEGY

FOR MR J. SPRECKLEY



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PLAN 1 Site plan.	

The open fronted shed.

FIGURE 1

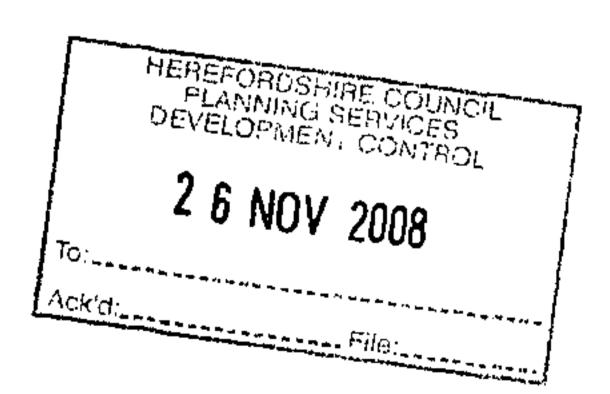
FIGURE 2

FIGURE 3

	A number of gappy mortise joints showed evidence of occasional use by bats although no bats were in residence during the survey period.
FIGURE 3	The paddock barn.
FIGURE 4	The paddock barn is in a serious state of dereliction.
	No evidence of bats was found during the survey period.
FIGURE 5 .	Bat access point designs that could be included in the roofs of the renovated buildings.

The open fronted shed supports a slate tiled roof that lacks an underlay.

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1. INTRODUCTION

- 1.1. Upper Foxhall Farm is situated at SO 632 258, approximately two miles northeast of Ross-on-Wye.
- 1.2. A planning application is being prepared for submission to the local planning authority seeking permission to renovate two abandoned agricultural buildings at Upper Foxhall Farm. These building comprise the Open Fronted Shed and the Paddock Barn (Plan 1 & Figures 1-4).
- 1.3. The buildings are set in a rural location and adjoin open countryside that supports a mosaic of habitats including hedgerows, arable fields and semi-improved grassland.
- 1.4. The local planning authority has requested that an ecological survey of the buildings is undertaken prior to granting planning permission for renovation.
- 1.5. This report details the results of bat, barn owl and nesting bird survey work undertaken at the Open Fronted Shed and the Paddock Barn on the 3rd, 4th and 5th June 2008.
- 1.6. The report sets out mitigation measures to safeguard bats and their roosts during the renovation works and details how new roosting opportunities will be created.
- 1.7. The report also sets out mitigation measures to ensure nesting birds are safeguarded at the renovation stage and that nesting opportunities are retained following the completion of renovation works.

2. LEGISLATION

<u>Birds</u>

2.1. Sections 1-8 of the Wildlife & Countryside Act (1981) are concerned with the protection of wild birds. With certain exception all wild birds and their eggs are protected from intentional killing, injuring and taking; and their nests, whilst being built or in use, cannot be taken, damaged or destroyed.

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- 2.2. All bats are protected under Schedule 5 of the Wildlife and Countryside Act 1981 and are also included in Schedule 2 of the Conservation (Natural Habitats &c.) Regulations 1994, which transposed into UK law the European Community Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (commonly known as the Habitats Directive). These include provisions making it an offence to:
 - intentionally or deliberately kill, injure or capture bats;
 - deliberately disturb bats (whether in a roost or not);
 - damage, destroy or obstruct access to bat roosts even if bats are not in residence.
- 2.3. If a proposed development is likely to disturb bats or their roosts a Natural England Wildlife Development Licence may be required before development work can commence.



3. ECOLOGY

<u>Bats</u>

- 3.1. There are 17 bat species in Britain. Many of them are considered threatened due to a variety of factors including habitat loss and disturbance/damage to roosts. Of these 17 species, a number regularly use buildings as roost sites.
- 3.2. Bats are highly mobile flying mammals, which, in Britain, feed entirely on insects. They are able to fly and feed in the dark by using a system of echolocation that gives them a 'sound picture' of their surroundings.
- 3.3. In winter, when prey is scarce, British bats hibernate in cool parts of buildings, caves or hollow trees. They may wake occasionally but only become fully active again in the spring.
- 3.4. Female bats gather together in maternity roosts in summer to give birth and rear their single baby. Like other mammals bats have fur and give birth to live young. Baby bats (pups) suckle on their mothers milk for several weeks until they can fly and hunt insects for themselves. Bats are long-lived mammals and some British species are known to live to over twenty-five years of age.

4. SURVEY METHODS

<u>Birds</u>

- 4.1. The buildings were surveyed for nesting birds on the 3rd, 4th and 5th June 2008. Searches were made for nests and evidence of nesting such as birds carrying nesting material and food items.
- 4.2. Specific searches were made for barn owl *Tyto alba*. Particular searches were made for coughed up food pellets that can indicate usage and extent of usage.

<u>Bats</u>

- 4.3. The buildings were searched for evidence of bats over the course of three visits undertaken on the 3rd, 4th and 5th June 2008.
- 4.4. Daytime internal and external searches were made for bat droppings, staining and other signs that can indicate present or past use and extent of use. Typical roost sites such as gappy mortise joints, the gaps between rafters and beams and behind wooden cladding were subject to specific examination with an endoscope.
- 4.5. Evening fieldwork with bat detectors was carried out during favourable weather conditions on the 3rd and 4th June 2008. These surveys aimed to record any roosting bats leaving the buildings in the evening.
- 4.6. Dawn fieldwork with bat detectors was carried out during favourable weather conditions on the 5th June 2008. This survey aimed to record any bats returning to the buildings in the morning.
- 4.7. Two surveyors carried out the emergence and dawn survey work.
- 4.8. All surveys were co-ordinated by a Natural England licensed bat worker. Licence number 20081389.

5. RESULTS

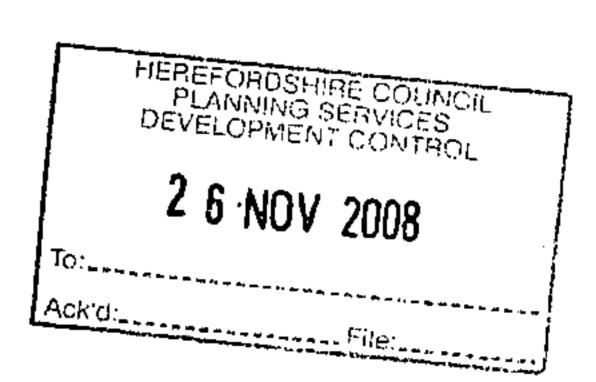
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<u>Birds</u>

- 5.1. Both the Open Fronted Shed and the Paddock Barn offer some nesting opportunities for birds. At the time of the survey species recorded nesting include swallow *Hirundo rustica* and wren *Troglodytes troglodytes*.
- 5.2. No evidence of barn owl was found in either of the buildings.

Mitigation Proposals for Nesting Birds

- 5.3. In order to safeguard nesting birds renovation works that could potentially impact on nesting sites will be undertaken outside the bird nesting season between the months of October and February.
- 5.4. If renovation works are proposed outside these dates an additional nesting bird survey will be undertaken. The results of this survey will inform mitigation proposals to ensure any nesting birds that may be present will be safeguarded.
- 5.5. A minimum of three artificial bird nest boxes will be erected on each of the renovated buildings. The boxes will comprise a mix of Schwegler boxes suitable for swallows, tits, robin and spotted flycatcher.
- 5.6. Nesting boxes can be obtained from www.alanaecology.com
- 5.7. All boxes will be erected under the guidance of a consultant ecologist to ensure they are positioned in suitable locations.



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Bats

Daytime Internal & external Inspections undertaken on 3rd, 4th and 5th June 2008.

- 5.8. The Open Fronted Shed comprises a single storey building with an open frontage (Figure 1). It supports a slate tiled roof that lacks an underlay (Figure 2).
- 5.9. Two small gappy mortise joints in the roofing timbers showed evidence of occasional use by bats, the extent of droppings suggest usage by a small number of pipistrelle bats. No bats were in residence during the survey period.
- 5.10. The Paddock Barn is in a serious state of dereliction. It supports a corrugated iron roof that is missing over large areas (Figures 3-4). The barn is generally lacking in bat roosting opportunities and no evidence of bats was found in this building during the survey period.

Evening emergence surveys undertaken on 3rd & 4th June 2008.

5.11. Two pipistrelle bats *Pipistrellus pipistrellus* were observed foraging in the local area on both survey dates. No other bats were recorded and no bats were recorded departing from the Open Fronted Shed or the Paddock Barn.

Dawn survey undertaken on 5th June 2008.

5.12. Four pipistrelle bats were recorded flying around the nearby farm house during the dawn survey (Plan 1). No other bats were recorded and no bats were recorded returning to the Open Fronted Shed or the Paddock Barn during the dawn survey.

6. BAT MITIGATION STRATEGY

Introduction to the bat mitigation strategy

- 6.1. During the survey period the Open Fronted Shed and the Paddock Barn were not utilised by bats.
- 6.2. Two small mortise joints in the Open Fronted Shed showed some evidence of occasional usage by pipistrelle bats. No evidence of bats was found in the Paddock Barn.
- 6.3. This mitigation strategy details guidance and measures to ensure that bats are safeguarded throughout the renovation period. The mitigation strategy also details proposals for creating bat roosting opportunities.

Consultation with licensed bat worker

6.4. Throughout the duration of renovation works a Natural England licensed bat worker will be in consultation with the site manager and contractors to ensure that the bat mitigation strategy is correctly implemented.

Timing of works

- 6.5. Renovation works can proceed at any time providing they will not impact on areas identified as supporting roosting bats (or nesting birds).
- 6.6. Renovation works to areas identified as supporting roosting bats will be undertaken during late autumn and winter when bats are usually absent and bat usage of the buildings will be minimal.
- 6.7. A licensed bat worker will be consulted to ensure that bats are absent prior to works commencing.

Roof design

6.8. Bat access points will be created in the roofs of the renovated buildings. These will allow bats access into the cavities between the slate tiles and roofing feit. Gaps of approximately 1.5cm x 10cm will be left between tiles, under ridge tiles and at gable end walls and around soffit and barge boards. A licensed bat worker will oversee works to ensure an adequate number of access points are created. Bat access points will follow a standard design as set out in Figure 5.

Creation of roost sites behind weather boarding

6.9. Where weatherboarding is utilised in the renovation process it will be fixed to walls using 2cm battening and gaps of approximately 1.5cm x 10cm will be created to allow access for crevice roosting species such as pipistrelle. A licensed bat worker will oversee works to ensure an adequate number of access points are created.



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Fissures in walls

6.10. Fissures in the stonework of the buildings will be retained where possible. Where repointing is required it will only be undertaken if it is clear that bats are not present. The site manager will consult with a licensed bat worker where necessary.

Bat boxes

- 6.11. Three Schwegler bat boxes will be erected on nearby trees prior to the commencement of renovation works. The boxes will be erected under the guidance of a licensed bat worker.
- 6.12. Boxes can be obtained from the Bat Conservation Trust at www.bats.org.uk

Lighting

6.13. Where external security lighting is used it will not be located in areas where bat access points have been created or where bat boxes have been erected.

<u>Timber treatments</u>

6.14. Any timber treatments that are required will follow guidelines published by Natural England.

Unexpected discoveries

6.15. If bats are unexpectedly discovered during renovation works all works will stop and a licensed bat worker will be consulted immediately. A licensed bat worker will be on call for such an eventuality.

7. CONCLUSION

<u>Birds</u>

- 7.1. A nesting bird survey undertaken at the Open Fronted Shed and the Paddock Barn on the 3rd, 4th and 5th June 2008 found evidence of nesting swallow and wren.
- 7.2. Nesting birds will be safeguarded by undertaking renovation works outside the bird nesting season between the months of October and February. If renovation works are proposed outside these dates an updated nesting bird survey will be undertaken.
- 7.3. New nesting sites will be created through the provision of artificial bird nest boxes that will be erected on the renovated buildings. A minimum of three artificial bird nest boxes will be erected on each of the renovated buildings. The boxes will comprise a mix of Schwegler boxes.
- 7.4. No evidence of barn owls was found during survey work.

Bats

- 7.5. Bat survey work was undertaken at the Open Fronted Shed and the Paddock Barn on the 3rd, 4th and 5th June 2008. During this survey period the buildings were not utilised by bats. However, two mortise joints in the Open Fronted Shed showed evidence of occasional usage by small numbers of non-breeding pipistrelle bats.
- 7.6. The bat mitigation strategy set out in this report safeguards bats during the renovation period. It will also provide new roosting opportunities through sympathetic renovation.
- 7.7. Renovation and mitigation works will be carried out under consultation with a Natural England licensed bat worker to ensure bats are safeguarded and that all proposed mitigation measures are suitably implemented.

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