



**Bat Roost Inspection
and Badger Survey
of
Land at Warblington School,
Havant, Hampshire**

on behalf of

Bloor Homes

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0 Executive Summary

- 0.1 A Phase 1 Habitat Survey was undertaken in 2010 by Baker Shepherd Gillespie (BSG), which updated previous surveys undertaken in 2005/6 also by BSG. These surveys highlighted the need for further surveys for bats and badgers. James Blake Associates were commissioned to undertake a Bat Roost Inspection and Badger Survey of land at Warblington School, Havant, Hampshire. Surveys were undertaken on the 1st February 2011.
- 0.2 The site comprised playing fields (amenity grassland) and a mature hedgerow. An outdoor education area comprised an immature woodland with an educational pond.
- 0.3 No bat roosts were identified within the outdoor education area, however potential occasional roosts were recorded associated with mature ivy-clad hawthorn trees in the hedgerow to the south of the playing fields. It is understood that this hedgerow will be retained as part of the development. However, if clearance of the mature hawthorn trees is needed, this should be done under supervision of a bat ecologist.
- 0.4 An inactive badger sett was recorded within the outdoor education area and an inactive possible outlier sett was recorded within the mature hedgerow to the south of the site.
- 0.5 All existing trees and hedgerows to be retained should be suitably protected from harm following British Standards (BS5837).
- 0.6 To avoid potential disturbance to possible roosting bats, it is recommended that all site works are undertaken during daylight hours.
- 0.7 Post development lighting should be low level and low wattage wherever possible and should not illuminate the retained hedgerow to the south of the site or the retained woodland to the east of the site.
- 0.8 It was considered that the development could proceed with minimal risk of harm to bats or badgers, if precautionary measures detailed in this report are followed.

1 INTRODUCTION

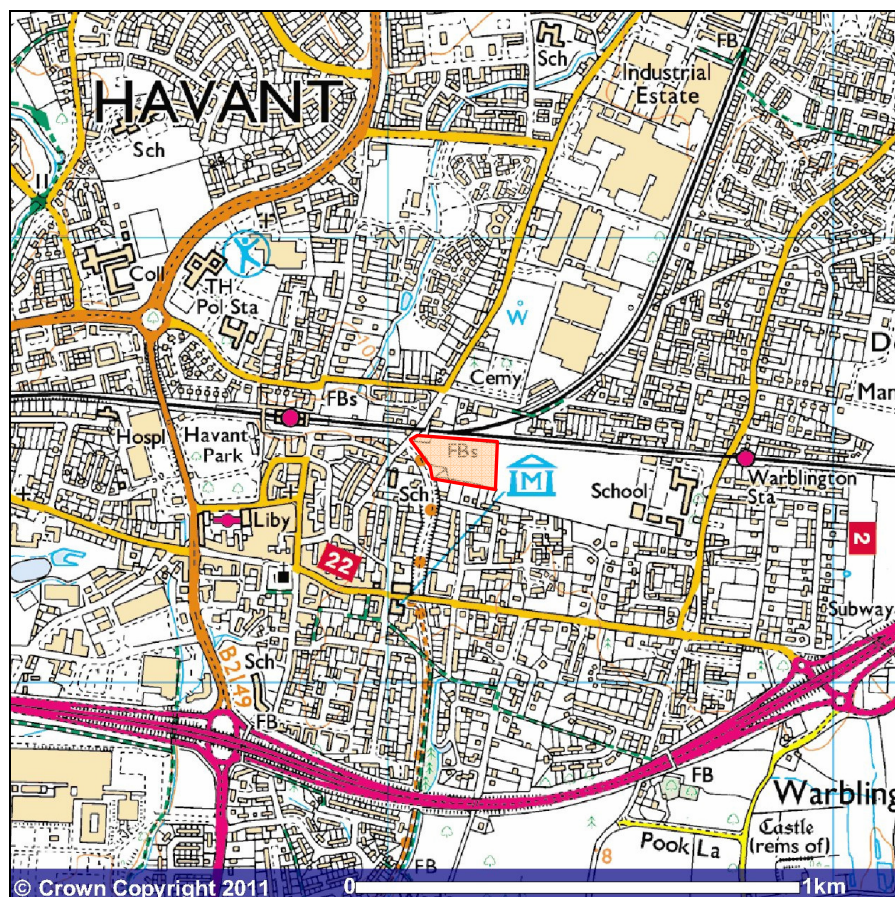
Background

- 1.1 James Blake Associates were commissioned by Bloor Homes to undertake a Bat Roost Inspection and Badger Survey of land at Warblington School, Havant, grid reference: SU 721 065 (taken from the centre of the site). The site is proposed for residential housing with associated public open space.
- 1.2 Wildlife, such as bats and badgers are protected species. All protected and Biodiversity Action Plan (BAP) species are material considerations for individual planning decisions under PPS9 (Planning Policy Statement 9) (ODPM, 1994).

Site Description

- 1.3 The site was located to the west of Warblington School playing fields. A railway line forms the northern boundary of the site with a footpath lies immediately adjacent to the west. Residential and industrial buildings dominate the wider area (see Figure 1 below).
- 1.4 The site is split into two distinct areas: Warblington School playing fields to the east and Fairfield Infant School Outdoor Education Area to the west. The outdoor education area comprised an immature woodland with coarse grass ground flora, a pond is also present in this area.

Figure 1: Ordnance Survey Map - site location



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Aims and objectives

- 1.5 The aim of the survey was to:
- Identify the presence or likely presence of bat roosts within any of the trees at the site;
 - Identify the presence or likely presence of active badger setts within the site or within 30m of the site boundary;
 - Assess the potential impact of the proposed works on any protected or notable species and/or habitats present on or adjacent to the site;
 - Make any recommendations for further surveys and/or mitigation following the survey, if necessary, and provide suggestions to enhance the biodiversity value of the site post-development;

2 Methods

Bat Roost Inspection

- 2.1 Bat Roost Inspection survey was undertaken by Mary Davies BSc (Hons) MSc (NE Bat Licence Number: 20104163) on the 1st February 2011. The weather was mild with no cloud cover.
- 2.2 An external examination of all trees on, or close to, the site that could provide potential roost sites for bats was undertaken. Binoculars were used to check for entry points such as cracks or holes, plus evidence of bat activity such as staining, droppings and feeding remains (such as moth wings) that could indicate use by bats.

Badger Survey

- 2.3 A day time survey for the presence of setts was undertaken on the 1st February 2011 by Mary Davies BSc (Hons) MSc. The survey recorded any field signs indicating recent badger activity such as fresh bedding material, scratch marks, hairs, latrines and foraging areas.

3 Results

- 3.1 Appendix A shows a map of the site, with Target Notes.

Limitations and Assumptions

- 3.2 The baseline conditions reported and assessed in this document represent those identified at the time of the survey. The survey was conducted in February, which is an optimal time for bat roost potential and badger surveys with little vegetative cover present; however, as bats hibernate through the winter, any signs indicating a summer roost may not be evident.

Bat Roost Inspection Survey

The Outdoor Education Area

- 3.3 The small woodland comprised mainly immature and semi-mature trees with species including: hawthorn *Crataegus monogyna*, field maple *Acer campestre*, sycamore *Acer pseudoplatanus*, silver birch *Betula pendula*, ash *Fraxinus excelsior*, English oak *Quercus robur*, cherry *Prunus sp.*, holly *Ilex aquifolium* and hazel *Corylus avellana*.
- 3.4 A small number of mature trees were present including hawthorn, lilac *Syringia sp.* and horse chestnut *Asceulus hippocastanum*.
- 3.5 No evidence of bat activity was found, and no potential roosts were identified.

Warblington School Playing Fields

- 3.6 A mature hedgerow/ woodland buffer was present to the south of the playing fields. This was dominated by over-mature elder *Sambucus nigra* and hawthorn. The woodland was sparse with many fallen and dead trees. Ivy covers the majority of the trees and dominates the ground flora.
- 3.7 Potential bat roosts were recorded within a group of mature hawthorns at target note 1 (see site map in the appendix). These trees were heavily clad in ivy, it was considered likely, due to the age of the trees, that cracks and or fissures may have been present underneath the ivy, creating potential crevice roosts for bats.

Table 1: Daytime assessment (conducted 1st February 2011) of trees with bat roost potential (Roost potential categories follow Bat Survey: good practice guidelines, 2007).

Tree Number	Species	Description	Bat roost potential
Immature trees within the outdoor education area	Hawthorn, field maple, silver birch, ash, oak, cherry, holly and hazel	Young trees generally no more than 15cm DBH. Some sparse ivy-cladding up to a height of approximately 3.5-4m.	negligible Category 3
T8	Lilac	Moderate sized mature tree with multiple limbs.	negligible Category 3
T1	Horse chestnut	Large tree, with sparse ivy covering. Significant pruning to the northern aspect over the railway.	negligible Category 3

Group of over-mature trees within the mature hedgerow to the south of the playing fields	Hawthorn	Five stems of dying trees with heavy ivy cladding.	Moderate Category 2b
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Badger Survey

The Outdoor Education Area

- 3.8 A badger sett was identified within the outdoor education area, comprising approximately five holes (target note 2). It was considered that this sett was disused at the time of the survey and had been so for some time. The holes were filled with detritus and covered with ivy. No evidence of recent activity was recorded within the area. The survey undertaken by BSG in 2010 stated that the badger sett was disused.

Warblington School Playing Fields

- 3.9 A single hole was identified at the foot of a mature hawthorn tree at target note 3. It was considered that this potential outlier sett was disused at the time of survey and had been so for some time. This hole was not recorded in previous surveys, however the entrance was completely covered with ivy growth and no evidence of recent activity was recorded. No further signs of badger activity were found.

4 Evaluation

Bat Roost Inspection Survey

- 4.1 No bat roosts were identified within the outdoor education area. The trees within this woodland did not contain features such as rot holes, crack, fissures and peeling bark. Although there was some ivy cladding this was generally sparse and was not considered to hide any potential roosting features.
- 4.2 A number of potential crevice roost sites were identified associated with the mature hawthorn trees in the mature hedgerow/ woodland buffer to the south of the playing fields. However, these trees are currently proposed for retention. It is considered that with the precautionary measures outlined below, works can proceed with minimal disturbance to any bats that may be present.

Badger Survey

- 4.3 An old badger sett was identified within the outdoor education area and a single entrance to a potential outlier sett was identified within the mature hedgerow/linear woodland to the south of the playing fields. Both of these setts were considered to be inactive at the time of survey due to the absence of evidence suggesting recent activity and the dense coverage of ivy over the entrance holes.
- 4.4 The surveys undertaken by BSG in 2005 and 2010 indicated that the badger sett within the outdoor education area was disused. There was no evidence to suggest recent badger activity and no other evidence of badger activity was discovered in the remained of the site. The outdoor education area was surrounded by a chain-link fence, therefore, it was unlikely that badgers could enter from the wider area.

- 4.5 As the set has been disused for over a year, no licence application will be required prior to clearance. However, a checking survey just prior to ground-works should be undertaken to ensure that badgers have not moved into the area.

4.6

5 Key Recommendations

Precautionary Measures

- 5.1 To avoid potential disturbance to roosting bats, it is recommended that all works are undertaken during daylight hours.
- 5.2 If the mature hawthorn trees to the south are to be removed, this should be done under the supervision of an ecologist, due to the low risk that an occasional roosting bat may be present. Sectional soft felling techniques should be used to minimize risk to any bats using these trees as occasional transient roost sites.
- 5.3 Post development lighting should be low level and low wattage wherever possible and should not illuminate the retained hedgerow to the south of the site or any proposed woodland/ tree planting within the new development.
- 5.4 Any necessary security lighting should ideally be set on short timers and be sensitive to large moving objects only.
- 5.5 Ideally, lights should be low pressure sodium lamps with covers made from glass rather than plastic, as this minimises the amount of UV light, reducing the attraction effects of lights on insects (BCT, 2009).
- 5.6 Existing trees and hedgerows that are to be retained should be suitably protected from harm during the construction works following British Standard: BS5837.

6 Additional Recommendations

- 6.1 The following are suggestions that the client may wish to consider to enhance the value of the site for wildlife. It should be noted that these are not legally required for compensation of habitats or mitigation.
- 6.2 The addition of bat boxes within existing/ retained trees would provide additional roosting opportunities. Schwegler bat boxes are recognised as being suitable for roosting bats and long lasting. Bat boxes should ideally be located facing south east to south west and high up (above 4m).
- 6.3 Native hedgerows planted along the northern and eastern boundaries of the site would provide commuting and foraging routes for bats. Hedgerows along these boundaries would link existing areas of vegetation, enhancing the ecological links in the area.
- 6.4 The inclusion of wildflower rich swards will enhance the area for invertebrates, which will in turn benefit bats in the area.
- 6.5 As the pond within the outdoor education area is to be removed as part of the development, it is recommended that a new pond is created to mitigate for the loss of this habitat. It is understood that a pond will be provided within the new outdoor classroom adjacent to Fairfield School, to the south west of the site.

7 Conclusion

- 7.1 No bat roosts were identified within the outdoor education area. The only potential roosts identified were associated with the mature hedgerow to the south of the site. This hedgerow is currently scheduled to be retained within the proposals. If the precautionary measures (supervised, sectional felling) are followed it is considered that disturbance to any bats that may be present would be minimal and short term.
- 7.2 Inactive badger setts were identified within the site, these setts had been identified as disused by BSG in 2005 and 2010. No active setts were recorded within the site or within 30m of the site boundary, therefore development of the site is unlikely to impact upon badgers
- 7.3 At the present time it is considered that works will not result in an offence under UK wildlife legislation. However, as badgers can colonise areas very rapidly, it is recommended that an updating badger survey is undertaken just prior to clearance, to ensure that no individuals have moved into the area.
- 7.4 By including some or all of the suggested additional recommendations it was considered that the area could be enhanced for local wildlife, post development.

8 References

Baker Shepherd Gillespie (2010) Warblington School, Havant Extended Phase 1 Habitat Survey.

Bat Conservation Trust Bat (2007) Surveys - Good Practice Guide Lines.

BCT (2007) Bats and lighting in the UK - bats and the environment series.

Office of the Deputy Prime Minister (ODPM), (1994). *Planning Policy Statement 9*. The Stationery Office (TSO), London.

Stace, C. (1997). *New flora of the British Isles* (2nd edition). Cambridge University Press.

Web references

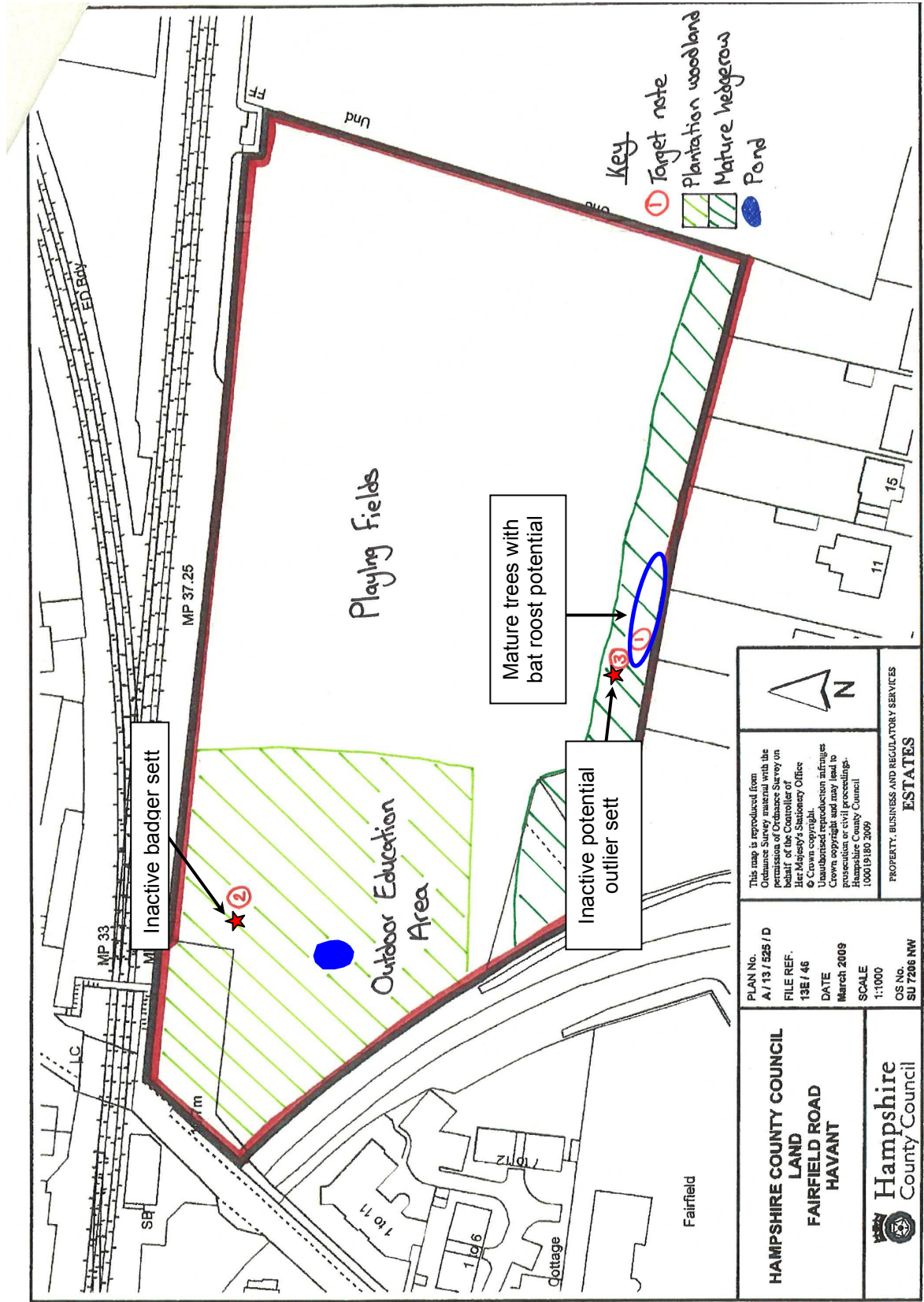
MAGIC: Designated area data downloaded from URL <http://www.magic.gov.uk.html>

National Biodiversity Network: Protected species data downloaded from URL <http://data.nbn.org/interactive/map>

UK local BAP www.ukbap.org.uk

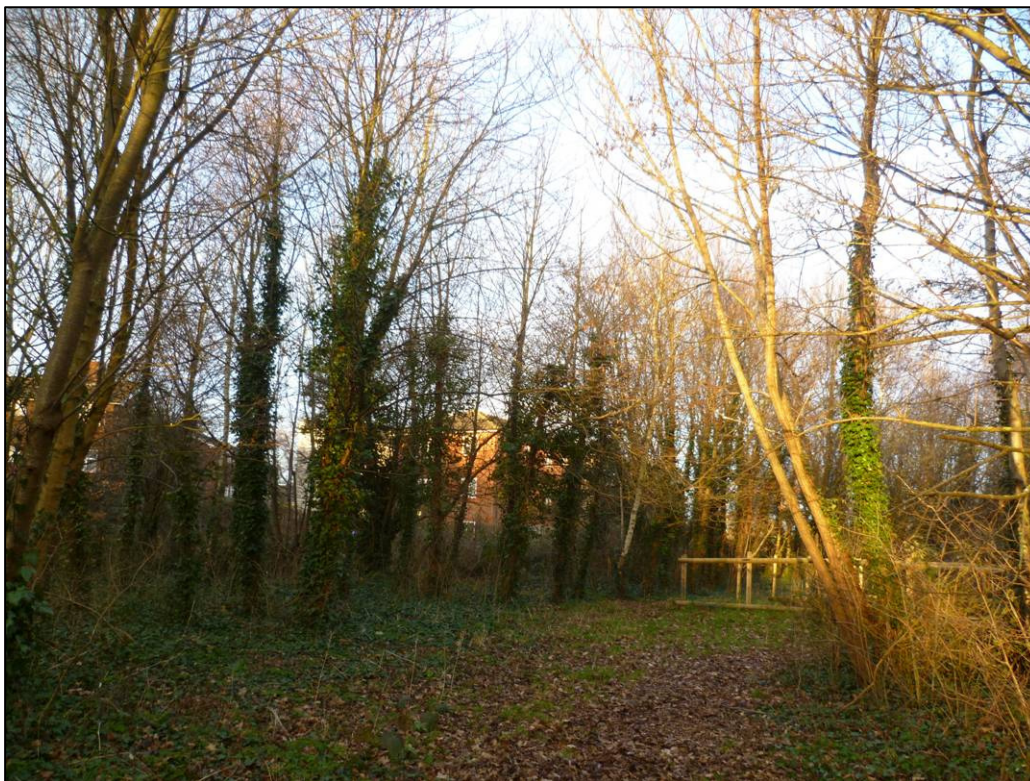
9 Appendices

Appendix A: Habitat Map



Appendix C: Photographs

Photograph 1: Immature woodland within the Outdoor Education Area, 1st February 2011.



Photograph 2: Pond within the Outdoor Education Area, 1st February 2011.



Photograph 3: Mature hedgerow south of the Playing fields, 1st February 2011.



Photograph 4: Inactive badger sett within the Outdoor Education Area, 1st February 2011.



Appendix D: Relevant protected species legislation

Species	Relevant Legislation	Level of Protection
Badgers	• Protection of Badgers Act 1992 • Badgers are also protected by the Wild Mammals (Protection) Act 1996	The Protection of Badgers Act (1992) makes it an offence to intentionally or recklessly: • Damage a badger sett or any part of it • Destroy a badger sett • Obstruct access to, or any entrance of a badger sett • Disturb a badger whilst it is occupying a badger sett
Bats	• Full protection under the Wildlife and Countryside Act (WCA) (1981) (Listed on Schedule 5) - as amended • Classified as European protected species under conservation (Natural Habitats &c) Regulations 1994 • Also protected by the Wild Mammals (Protection) Act 1996	The WCA (1981) makes it an offence to: • intentionally kill, injure, or take any species of bat • intentionally or recklessly disturb bats • intentionally or recklessly damage destroy or obstruct access to bat roosts