Sandleford Park, Newbury

Appendix F10: Dormouse Presence/Likely Absence Survey Report

Bloor Homes and The Sandleford Farm Partnership

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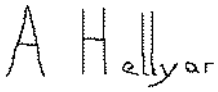
Prepared by:		Alex Hellyar GradCIEEM **Assistant Ecologist**
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Rev:	Date:	Updated by:	Verified by:	Description of changes:
2	10.12.18	Ben Cooke	Tamsin Clark	Updated to reflect current proposals
3	14.02.19	Tamsin Clark	N/A	Updated as ES addendum to application 3a

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Executive Summary

Contents	Summary
Site Location	The site is located at Sandleford Park in Newbury, West Berkshire, centred on OS Grid Reference SU 46847 64550. The site comprises agricultural fields with areas of grassland and several copses of ancient woodland. A central valley runs from the north-western corner of the site towards the River Enborne at the site's southern boundary.
Existing Site Information	A hazel dormouse (hereafter referred to as 'dormouse') presence / likely absence survey was completed between June and October 2011, with additional surveys in April and May 2012. No dormice were found during these surveys, and as such, dormice were considered likely to be absent from the site. WYG completed an update dormouse presence / likely absence survey in 2014. During this survey a dormouse was found inside a nest tube within Barn Copse at the western extent of the site and a dormouse nest was found within Slockett's Copse. As the presence of dormice was confirmed at the site and, as the site is well connected by a network of hedgerows, dormice were considered likely to be present within suitable habitat (woodland, hedgerows and scrub) across the remainder of the site. No dormice were recorded during most recent the survey visits carried out on a monthly basis between May – September 2017.
Scope of this Survey(s)	A review of the dormouse survey results with reference to the current proposals.
Results	No dormice were recorded during the survey visits carried out on a monthly basis between May – September 2017. However due to the large territory ranges of dormice, their low population density, even in best habitat (Bright *et al* 2006) and the presence of plentiful suitable habitat on site, the results of this survey cannot support the assumption that dormice are likely absent from site. Confirmed recordings in past surveys also support this conclusion.
Recommendations	The following measures are recommended to mitigate for the impacts resulting from development and enhance the features on site to provide for future dormouse populations: • Creation of continuous vegetation arches where possible over proposed access roads where they cross existing hedgerows; • Creation of new hedgerows where they are not currently present; • Infill planting of gappy hedgerows to enhance the habitats; • Installation of 20 nest boxes in retained woodland habitat; • Where removal of hedgerow and scrub vegetation is required, this should take place overwinter (between November and February - when dormice will be hibernating at ground level) to a height of 300mm under supervision of a dormouse licensed ecologist; • Consequent removal of stumps and roots to be undertaken between May and October (to avoid hibernating dormice);

	• Habitat management for woodland and hedgerows (existing and new) to promote structural diversity and encourage fruits /seeds. • Where public rights of way cross woodland habitat, these will be clearly demarcated, with information notices detailing the nature conservation value of the woodlands, and advising future residents to remain on the marked pathways. • Future monitoring of dormice within the site, post-development. • In the event a dormouse is found all works must stop and not commence again until Natural England have been contacted and a EPSL is obtained for the relevant area/works.

Glossary

CIEEM	Chartered Institute of Ecology & Environmental Management
EMMP	Ecological Mitigation and Management Plan
EPSL	European Protected Species Licence
GradCIEEM	Graduate Member of Chartered Institute of Ecology & Environmental Management
HBIC	Hampshire Biodiversity Information Centre
JNCC	Join Nature Conservancy Council
MCIEEM	Member of Chartered Institute of Ecology & Environmental Management
NE	Natural England
NERC Act	Natural Environment and Rural Communities Act 2006
TVERC	Thames Valley Environmental Records Centre

1.0 Introduction

1.1 Background

WYG was commissioned by Bloor Homes and the Sandleford Farm in December 2018 to review the findings of dormouse surveys at Sandleford Park, with reference to the current proposals.

This report has been prepared by Assistant Ecologist Alex Hellyar, and updated by Tamsin Clark MCIEEM.

1.2 Site Location

The site is located at Sandleford Park in Newbury, West Berkshire and is centred at Ordnance Survey National Grid Reference SU 46847 64550. The survey area, hereafter referred to as the 'site' comprises of agricultural fields with areas of grassland and several copses of ancient woodland dispersed throughout. A central valley runs from the north-western corner of the site towards the River Enborne at the site's southern boundary.

For details of the development description, please see the main ES chapter.

1.3 Purpose of the Report

The aims of current report are to:

- Review the survey findings for dormice on site;
- Provide an appraisal of the implications created by the potential presence of hazel dormice at the site;
- Establish if any potential effects on hazel dormice caused by the development are permissible; and
- Provide preliminary advice on mitigation strategies against any adverse effects on local hazel dormice population(s) which may arise as a result of the proposed development.

2.0 Methodology

2.1 Desk Study

2.1.1 Previous Reports

A dormouse presence/likely absence survey was completed between June and October 2011, with additional surveys in April and May 2012. No dormice were found during these surveys, and as such, they were considered likely to be absent from the site.

WYG then completed an update extended Phase 1 habitat survey in April 2013, which highlighted the requirement for an update dormouse presence / likely absence survey in 2014. During this survey a **dormouse in a nest** was found within a nest tube within Barn Copse at the western extent of the site and **a nest** was found within Slockett's Copse. As the presence of dormice was confirmed at the site and the site is well connected by a network of hedgerows, dormice were considered likely to be present within suitable habitat (woodland, hedgerows and scrub) across the remainder of the site.

Update surveys in 2017 did not find any evidence of dormice.

2.1.2 Local Ecological Records Centre

Site and species specific data has been sourced through direct consultation with both the HBIC and TVERC most recently in December 2017. The area of search was taken as 2km, which is the standard search area required by most local authorities. This provided the overall ecological context for the site and surrounding areas and potential basis for the dormouse survey.

2.1.3 Online Resources

There were no records of EPSLs issued for hazel dormouse returned by MAGIC (www.magic.gov.uk) on-site or within a 2km radius of the site boundary.

2.2 Field Survey (2017)

2.2.1 Dormouse Survey

Following the findings of the update extended Phase 1 habitat survey completed in 2013 and the earlier dormouse surveys, the current suite of surveys continued to follow the methodology as described in Bright *et al*, (2006), the English Nature *Dormouse Conservation Handbook*.

Nine hundred artificial nest tubes, supplied by the Mammal Society, were placed throughout the hedgerows, scrub and woodland on site in early May 2017. These are readily used by hazel dormice for breeding and daytime shelter. Tubes are made from stiff double walled black plastic sheet, 5 x 5cm in cross section and 25cm long. A small plywood tray is placed inside, projecting 5cm beyond the tube's entrance to allow the animals' easy access. The opposite end of the tube is sealed with a wooden block mounted on the tray. The tubes are suspended by cable ties, fixed firmly underneath horizontal limbs, where they resemble a hollow branch. The tubes can be emptied without removing them by placing a plastic bag over the closed end and pushing in the wooden tray from the open end of the tube.

Nest tubes were located approximately 20m apart along hedgerows and at a density of 30 per hectare in woodland areas. They were positioned on trees and shrubs at between 1 and 2 metres

from the ground and distributed throughout all woodland, hedgerow and scrub habitat within the site. Locations of tubes can be seen on Figure 1.

2.2.2 Number of Survey Visits

To prove the likely absence of dormice at a site, visits were made to check the nest tubes each month between May and September. This would achieve 20 points, which is considered to be a reasonable survey effort based on the index of probability scoring system, (Bright *et al*, English Nature, 2006). The points system varies throughout the year as nest tubes are most likely to be occupied during May and August / September. However, as surveys can only determine presence or likely absence and cannot provide a population estimate, once presence of dormice has been determined within a site dormice can be assumed to be present within all suitable and connected habitats.

Month	Index of Probability
April	1
May	4
June	2
July	2
August	5
September	7
October	2
November	2

The dates for the dormouse surveys were:

- 31st May 2017, points total = 4
- 23rd June 2017, points total = 6
- 28th July 2017, points total = 8
- 21st August 2017, points total = 13
- 13th September 2017, points total = 20

(11th October 2017, points total = 22)

2.3 Limitations

Surveys were completed according to the relevant guidelines and the majority of the site was accessible. It was not possible to install dormouse nest tubes across the whole extent of High Wood or Waterleaze Copse as secure pheasant pens were present; however tubes were placed in the remaining areas of suitable habitat within these woodlands and is not considered a limitation.

Following the initial survey visit in May 2017 the density of nesting tubes placed within Slockett's Copse was found to be lower than the recommended 30 per ha. Further nesting tubes were added to meet the required density within the copse prior to the June 2017 survey. An additional site visit was

completed in October 2017 to bolster the survey effort within Slockett's Copse having conducted the initial survey at a lower density therefore it is not considered to be a limitation.

3.0 Results

3.1 Desk Study Results

No dormouse records or records of EPSL for dormouse were returned within 2km of the proposed development site. However, as noted in Section 2.1.1, dormice have previously been recorded on site (see Figure 2).

3.2 Habitat Assessment

The extended Phase 1 habitat survey completed by WYG in 2011 and updated in 2013 and 2016 identified the habitat within the site as having potential to support dormice. The extended phase 1 habitat survey found that the interconnectivity of the woodland habitats by intact hedgerows, particularly in the northern area, and the hazel understorey in some of the woodlands provides favourable conditions for dormice. It is considered that the following dormouse interest applies to woodlands on the site:

Woodland Name	Habitat Potential for Dormouse	Comments
High Wood	Moderate-High	Large extent and diverse structure, well connected by intact hedgerows
Crook's Copse	Moderate	Diverse structure, well connected, small size with connecting hedgerows
Barn Copse	Moderate	Diverse structure and well connected with other woodlands. Dormouse recorded in 2014 during WYG surveys..
Slockett's Copse	High	Close to High Wood and well connected to Crook's Copse. Dormouse nest recorded in 2014 during WYG surveys..
Dirty Ground Copse	Low	Poor structure, but connected to Barn Copse via hedgerows
Waterleaze	Moderate	Large extent and diverse structure, hazel is found throughout the wood, but scattered with an understory of holly too.
Gorse Covert	Low	Poor structure and lack of hazel understory
Brickkiln Copse	Moderate	Diverse structure and well connected with other woodlands

3.3 Survey Results

All nest tube boxes were checked from May to September 2017, with all surveyors (WYG Assistant Ecologist, Alex Hellyar and WYG Call-off Contractors Tom Dando, Izzie Kay and Lydon Trowbridge) appointed as accredited agents under the dormouse licence of WYG Associate Ecologist David West

(2016-23179-CLS-CLS). The absence of dormouse record on-site during these months gave a total score of 20 'survey points'.

Although potentially suitable habitat for dormice was identified during the extended Phase 1 habitat survey of the site, no dormice were found during the nest tube surveys. Some evidence of other small mammal species, likely to be from a wood mouse or yellow neck mouse were found in the nest tubes during the survey visits.

2017 Surveys	Location	Tube	Results
May	N/A	N/A	None recorded
June	N/A	N/A	None recorded
July	N/A	N/A	None recorded
August	N/A	N/A	None recorded
September	N/A	N/A	None recorded

Previous surveys conducted by WYG in 2014 identified an adult dormouse in a nest within Barn Copse and a nest within a nesting tube at Slockett's Copse. The locations of these recordings are shown on Figure 2.

4.0 Relevant Planning Policy & Legislation

4.1 Wildlife & Countryside Act 1981 (as amended)

This is the principal mechanism for the legislative protection of wildlife in the UK. Since it was first introduced, the Act has been amended several times.

The Act makes it an offence to:

- intentionally or recklessly kill, injure or take any wild animal listed on Schedule 5;
- interfere with places used for shelter or protection, or intentionally disturbing animals occupying such places; and
- plant included in Schedule 8, or any part of, or anything derived from, such a plant.

Following all amendments to the Act, Schedule 5 'Animals which are Protected' contains a total of 154 species of animal, including several mammals, reptiles, amphibians, fish and invertebrates. Schedule 8 'Plants which are Protected' of the Act, contains 185 species, including higher plants, bryophytes and fungi and lichens. A comprehensive and up-to-date list of these species can be obtained from the JNCC website.

4.2 Habitats Directive

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Fora, or the 'Habitats Directive', is a European Union directive adopted in 1992 in response to the Bern Convention. Its aims are to protect approximately 220 habitats and 1,000 species listed in its several Annexes.

In the UK, the Habitats Directive is transposed into national law via the Conservation of Habitats and Species Regulations 2017.

4.3 Natural Environment and Rural Communities Act 2006

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of Habitats and Species which are of Principal Importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the NERC Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 Habitats of Principal Importance and 1,150 Species of Principal Importance.

The hazel dormouse is a priority species within the Berkshire Biodiversity strategy 2014-2020.

4.4 Hedgerow Regulations 1997

The Hedgerow Regulations were made under Section 97 of the Environment Act 1995 and came into force in 1997. They introduced new arrangements for local planning authorities in England and Wales to protect important hedgerows in the countryside, by controlling their removal through a system of notification. Important hedgerows are defined by complex assessment criteria, which draw on biodiversity features, historical context and the landscape value of the hedgerow.

5.0 Impacts of Development and Proposed Mitigation

5.1 Impacts

All ancient woodlands will be retained within the final proposals, together with a 15m buffer, and the majority of hedgerows will be retained intact with a 3m buffer. However, there will be areas of hedgerow removed, and breaches created for access which are as follows:

- 256m of tree line with scrub understory to the south of Dirty Ground Copse;
- 135m of the southern portion of Hedgerow G; and
- Two sections will be lost from Hedgerow F (90m and 20m).

A total length of 501m of hedgerow will be lost to accommodate the development. This equates to 16.4% of all hedgerow habitat present on site (4,610m).

Refer to Appendix F18, Figure 2 for the locations of hedgerows and subsequent proposed areas of removal.

None of the above hedgerows and were assessed as being *'important'* under the Hedgerow regulations 1997 (WYG, 2018).

There is potential for indirect impacts on dormice as a result of increased cat predation as a result of new residents within the proposed development and through disturbance where public access is proposed within the woodlands.

5.2 Mitigation

Although dormice have been recorded historically in low numbers on-site, as no dormice were recorded during the most recent suite of surveys (May – September 2017) NE are unlikely to issue a EPSL (NE do not issue precautionary licence for protected species). It is recommended therefore that works which have the potential to impact dormice and associated suitable habitat proceed under a the methodology of a non-licenced method statement.

In addition it is recommended that the current surveys result are reviewed after two years. If update surveys are required at a later date should these surveys confirm the presence this evidence will be utilised to support an EPSL for dormouse.

5.2.1 Retention of Habitat

The masterplan has been designed to avoid, reduce and mitigate impacts on dormice and their habitats where possible. All woodlands will be retained within the masterplan with a 15 metre buffer surrounding them, and hedgerows will be largely retained.

Where the hedgerows are required to be bisected for roads and footpaths, it is recommended that tall trees will be planted either side of the breaches to create a vegetated arch to maintain connectivity for dormice.

5.2.2 Compensation Habitat

To maintain or restore the favourable conservation status of dormice within the site by providing compensatory habitat, it is recommended that new hedgerows are planted where they are not currently present. Where existing hedgerows are present it is recommended that these hedgerows are infilled with native planting to improve connectivity for dormice.

The new hedgerows should be planted with a diverse mix of native species including hawthorn, hazel, holly, blackthorn, elder, guelder rose and honeysuckle all of which will provide a food source and nesting habitat for dormice.

5.2.3 Nest boxes

Prior to any vegetation clearance, twenty standard design dormouse boxes will be erected within retained habitat. These boxes will provide long term shelter and breeding sites for dormice and will therefore enhance the habitat for dormice.

5.3 Avoidance

5.3.1 Toolbox Talks

All site operatives, including contractors, sub-contractors will receive a briefing by an ecologist holding a Natural England license for dormice (or an accredited agent under such a license). The briefing will include details of the legal protections of dormice, the precautionary methods of working (outlined in this document); pictures will be shown to make contractors/sub-contractors familiar with dormouse characteristics, contractors will be made aware of the optimal habitat at the site and the procedures to follow in the event dormice are discovered during the works.

5.3.2 Clearance Work

Given the presence of historical records it is proposed that all vegetation clearance works will be undertaken following a precautionary approach under a non-licenced method statement. A two-stage process of vegetation clearance will be completed to avoid the main dormouse hibernation and breeding seasons, in addition to the peak nesting bird season.

Winter Vegetation Clearance

Above-ground vegetation will be cut to a minimum of 300mm using a chainsaw, petrol strimmer or similar tools between November and February. The named ecologist / accredited agent will undertake hand searches of all the vegetation to be removed prior to cutting. Dormice hibernate at ground level; therefore, the ground level vegetation (i.e. all vegetation below 300mm) will remain *in situ* and undisturbed.

If any torpid dormice are found during the vegetation clearance all works must stop immediately. The associated licenced ecologist and the ECoW present on site must be contacted immediately and made aware of the discovery. The ecologist will first contact the client and subsequently contact NE directly to begin the application process for an ESPL. The works cannot continue until an EPSL for the works has been obtained. Any dormice discovered on-site must not be handled by non-licenced personal.

Summer Vegetation Clearance

Stump and root removal will be undertaken between May and October, after the hibernation season is over, when dormice will be using arboreal habitats.

The named ecologist / accredited agent will undertake a hand search of all the vegetation to be removed prior to cutting and excavation of the roots/stumps. If any dormice are during the vegetation clearance the same methodology described during the winter vegetation clearance will be applied. Works will stop and not proceed until the an EPSL licence is obtained from NE

5.3.3 Public information

Where public rights of way pass through woodland areas, these will be clearly demarcated, and information signs placed to guide future residents onto the existing pathways, and reduce impacts on the woodland habitats.

5.3.4 Management

Management recommendations will be contained with the EMMP (Appendix F18).

Retained and created hedgerows, scrub and woodland habitat within the site should be managed in the long term to enhance fruit / seed production and minimise disturbance to hazel dormice.

Pruning of hedgerows and control of scrub encroachment should be carried out over winter when dormice are hibernating at ground level.

The hedgerows should be cut once every three years to encourage the production of food such as berries.

The management of the woodland present on site, should involve periodic removal and coppicing of the trees to limit the density of the canopy layer and maintain a well-lit understory. Felling will not be undertaken uniformly or immediately and small group fellings throughout the woodland at intervals will maintain the species richness if undertaken every five to eight years (Bright et al. 2006).

Management works involving vegetation removal / thinning operations should be carried out outside breeding season (which is April to September), the best time to undertake these works is November to March as this allows the dormice to fully exploit the nut crop.

5.3.5 Monitoring

Given the presence of dormouse on-site in 2014, dormouse boxes should be monitored by a licensed/accredited dormouse surveyor twice a year (May and October) for up to five years after completion of the scheme (or creation of new habitats). Results of the monitoring surveys will inform the long term management of the site by allowing management prescriptions to be revised.

6.0 References

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- Natural England (2013) Standing Advice Species Sheet: Hazel Dormice.
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- WYG (2011) Sandleford Park, Newbury: Extended Phase 1 Habitat Survey
- WYG (2012) Sandleford Park, Newbury: Dormouse Presence / Likely Absence Survey Report
- WYG (2015, updated) Sandleford Park, Newbury: Update Extended Phase 1 Habitat Survey
- WYG (2015) Sandleford Park, Newbury: Hazel Dormouse Presence/Likely Absence Report
- WYG (2018) Sandleford Park: Appendix F18: Ecological Mitigation and Management Plan

FIGURES

Figure 1 – 2017 Site Location Plan & Nesting Tube Locations
Figure 2 – 2014 Survey Plan & Dormouse Record Locations

Rev	Date	Notes
A	12/03/18	Initial map production

Legend

Site boundary

Nest tube locations

0 25 50 100 150 200 Meters

N

Site Location Plan & Nesting Tube Locations in 2017

Sandleford Park, Newbury
Bloor Homes

Scale at A3:	Project No:	Drawing No:	Revision:
1:5,755	A070660-23	Figure 1	A

Drawn by:	Drawn date:	Approved by:
ben.cooke	12/03/2018	david.west

Rev	Date	Notes
A	13/10/17	Initial map production

Legend

- Site boundary
- Dormouse record
- Nest tube locations

0 25 50 100 150 200 Meters

N

Site Location Plan & Nesting Tube Locations in 2014

Sandleford Park, Newbury
Bloor Homes

Scale at A3:	Project No:	Drawing No:	Revision:
1:6,250	A070660-21	Figure 2	A

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alex.hellyar	21/02/2018	david.west

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