

PADNELL GRANGE

DORMOUSE SURVEY REPORT

Prepared for Bellway Homes

by

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1 INTRODUCTION

1.1 Site location and summary description

- 1.1.1 This report describes a Hazel Dormouse survey of approximately 2.7ha of land off Padnell Road, Cowplain, hereinafter referred to as 'the site'. The site centre is located by National Grid Reference SU 698 110. The study was commissioned by Bellway Homes in June 2017.
- 1.1.2 The site is located on the eastern edge of the settlement of Cowplain in southern Hampshire and forms the grounds of Padnell Grange which comprises a number of buildings in residential and commercial use together with associated hardstanding and formally landscape grounds.
- 1.1.3 The survey included an additional 1.8ha of mixed woodland, called Padnell Cuts Wood, to the north of the site, hereinafter referred to as the 'wider survey area'.
- 1.1.4 The site and wider survey area are bordered to the north, south and west by residential development and to the east by Waterlooville Golf Course. The wider area generally comprises residential development, grassland fields and areas of woodland. The A3(M) lies approximately 450m to the east of the site. The location and boundary of the site and wider survey area are shown on the plan in *Appendix A* and a more detailed description of the habitats within the site is given in the Ecological Appraisal (HDA, 2017).

1.2 Background and legislative context

- 1.2.1 The Hazel Dormouse (hereinafter referred to as 'Dormouse') is a nocturnal animal that lives in woody habitats, mainly deciduous woodland and scrub, where it feeds on a wide variety of arboreal foods including flowers, fruits and insects. Habitats supporting a high diversity of tree and shrub species are subsequently beneficial to this species as these provide an unbroken sequence of food throughout the Dormouse active season. The Dormouse lives in the tree and shrub layer throughout the spring, summer and autumn during which time it rarely descends to the ground. During the winter however, when little food is available, Dormice descend to ground level where they save energy by going into hibernation under logs or under vegetation and leaf litter at the base of coppice stumps and thick hedgerows (Bright *et al.*, 2006).
- 1.2.2 The Dormouse has undergone substantial declines in recent years as a result of habitat loss, deterioration and fragmentation and is consequently protected as a 'European Protected Species' under the 2017 Conservation of Habitats and Species Regulations, which implements the EC Habitats Directive 92/43/EEC in the United Kingdom. In relation to European Protected Species (EPS), the 2017 Regulations make it an offence to:

- Deliberately capture, injure or kill any wild animal of an EPS;
- Deliberately disturb wild animals of any such species, in particular any disturbance which is likely to: (i) impair their ability to survive, to breed or reproduce, or to rear or nurture their young; or to hibernate or migrate; (ii) affect significantly the local distribution or abundance of the species to which they belong;
- Damage or destroy a breeding site or resting place of such an animal; and/or
- To (a) be in possession of, or to control; (b) to transport any live or dead animal or any part of an animal; (c) to sell or exchange or (d) offer for sale or exchange any live or dead animal or part of an animal of an EPS.

1.2.3 In addition, Dormice are protected under the 1981 Wildlife and Countryside Act (as amended). Dormice are listed on Schedule 5 of the Act and are subject to the provisions of Sections 9.4b and 9.4c, which make it an offence to:

- Intentionally or recklessly disturb a Dormouse while it is occupying a structure or place which it uses for shelter or protection; and/or
- Intentionally or recklessly obstruct access to any structure or place used for shelter or protection by a Dormouse.

1.2.4 If works are planned that are likely to constitute an offence under the current legislation, a Natural England EPS licence should be applied for, and granted, prior to works commencing.

1.2.5 Dormice are also identified as a Biodiversity Action Plan (BAP) species for the UK and as a Species of Principal Importance under Section 41 of the 2006 NERC Act. This requires planning authorities to regard these species as a material consideration in the planning process.

1.3 Development proposals

1.3.1 The site is to be the subject of a planning application for residential development, with associated car parking and landscaping.

1.4 Scope and purpose of the report

1.4.1 A Phase 1 habitat survey undertaken on 26th June and 3rd July 2017 identified habitats suitable for Dormice, including hedgerows and tree lines within the site and broadleaved woodland within the wider survey area (HDA, 2017). These areas of habitat are relatively well connected to other areas of potential habitat in the wider area.

1.4.2 The aim of the survey was to establish whether Dormice are present at the site and to identify the need for any mitigation and licencing requirements, where appropriate.

2 METHODOLOGY

2.1 Nest tube survey

2.1.1 A Dormouse nest tube survey was conducted at the site and wider survey area by Julie Watson MCIEEM and Michael Berwick of Hankinson Duckett Associates, in accordance with the methodology described in *Section 3.2.6* of the Dormouse Conservation Handbook (Bright *et al.*, 2006). A total of 100 Dormouse nest tubes were installed across the site and wider survey area on the 22nd and 30th June 2017. The distribution of nest tubes is shown on the plan in *Appendix A*.

2.1.2 A series of three subsequent monitoring visits were made to the site. On each visit, all tubes were inspected for the presence of Dormice or evidence of occupation by Dormice, such as nests. Evidence of other small mammals using the tubes was also recorded. The dates of all Dormouse survey visits have been provided in *Table 1*.

Table 1: Dormouse survey visits

Date	Reason for visit
22 nd and 30 th June 2017	Installing nest tubes
24 th August 2017	Nest tube monitoring
19 th September 2017	Nest tube monitoring
9 th November 2017	Nest tube monitoring and removal

2.1.3 The Dormouse Conservation Handbook describes a scoring system for nest tube surveys which provides an indicator of the thoroughness of a survey. The system is based on an 'index of probability', whereby each month of the year in which Dormice are active is assigned a value according to the likelihood of Dormice using nest tubes (and leaving evidence of occupation) in that particular month. *Table 2* identifies the value of each month according to this system.

Table 2: Index of probability of finding Dormice present in nest tubes in any one month (Chanin and Woods, 2003, in Bright *et al.*, 2006).

Month	April	May	June	July	Aug	Sept	Oct	Nov
Index score	1	4	2	2	5	7	2	2

2.1.4 Values for individual months are based on the use of 50 tubes. If the number of tubes used is increased, the score for each month increases proportionately. In accordance with this methodology, the assumed absence of Dormice from a site should not be based on a total search effort score of less than 20 points.

2.1.5 During the survey conducted at Padnell Grange, 100 nest tubes were in place on the site and wider survey area for the months of July, August, September and October 2017.

This provided a total score of 32 points. The results are therefore considered to provide a robust indication of likely Dormouse presence/absence in relation to the site.

2.2 Habitat assessment

- 2.2.1 As an additional element to the nest tube survey, areas of woodland, hedgerows and treelines within or immediately adjacent to the site and the wider survey area were critically assessed for their suitability to support breeding populations of Dormice, or to provide habitat linkages between areas of suitable breeding habitat.

3 RESULTS

3.1 Habitat assessment

- 3.1.1 Suitable Dormouse habitat is found within the areas of woodland, hedgerows and treelines within the site and the wider survey area.
- 3.1.2 A network of managed hedgerows form the northern and eastern site boundaries and intersect the site. These are generally of limited suitability for Dormice, as they are heavily managed and dominated by Hawthorn. Other species present however include Yew, Sycamore, Holly, Elder, Hazel, Oak and Blackthorn which are likely to prolong foraging opportunities for Dormice across the active season. In addition, there are a number of semi-mature to mature trees scattered across the north-western area of the site and along its western boundary, including Oak, Norway Maple, Willow, Hawthorn, Whitebeam, Cherry Plum, Elder, Crab Apple, Lawson's Cypress, Hazel and Wild Cherry, which although of limited connectivity provide some opportunities for foraging Dormice.
- 3.1.3 Of higher suitability for Dormice is the area of deciduous woodland, Padnell Cuts Wood, which is located within the wider survey area. The woodland comprises semi-mature to mature trees including Hazel, Silver Birch, Yew, Beech, Wild Cherry, Norway Maple and Ash with an understorey of Holly, Laurel, Bramble, Hawthorn, Dogwood, Bracken, Bamboo, Gorse, Buddleia and *Lonicera nitida*. This woodland connects to woodland within the wider area to the north-east of the site. The variety of species present within the deciduous woodland provides suitable Dormouse habitat as it includes a range of species useful for foraging Dormice, in particular Bramble, Hawthorn and Hazel.
- 3.1.4 Within the surrounding area there are a number of woodlands which may provide suitable habitat for Dormice including Hazleton Wood to the north-east and areas of woodland and treelines within Waterlooville Golf Course to the east of the site. Adjacent to Waterlooville Golf Course is the A3(M) road which supports a wooded embankment, connecting suitable Dormouse habitat within the site and the adjacent Waterlooville Golf Course to Beech Wood, Outhurst Wood and Stakeshill Coppice to the south of the site.

3.2 Nest tube survey

- 3.2.1 No evidence of Dormice was found on any of the survey visits. Wood Mice and nests of leaves characteristic of Wood Mouse were recorded in a number of the nest tubes.

4 IMPACT ASSESSMENT

4.1 Dormouse presence/absence

- 4.1.1 Two elements have been considered in the determination of Dormouse presence/likely absence at the site: habitat assessment and nest tube survey results. With regard to these factors: (1) the site supports areas of suitable Dormouse habitat, however the hedgerows are dominated by heavily managed Hawthorn which is likely to limit its foraging value to this species. In addition, the treelines within the site have limited connectivity and subsequently also have limited suitability for this species; and (2) the nest tube survey did not identify evidence of Dormice. It is therefore considered that Dormice are highly likely to be absent from the site.

4.2 Dormouse impact assessment

- 4.2.1 Given the likely absence of Dormice from the site, the development proposals are considered highly unlikely to have any impact on Dormice and no requirement for mitigation or licensing has been identified.

5 CONCLUSION AND RECOMMENDATIONS

- 5.1 No evidence of Dormouse was identified during the nest tube survey. Based on the results of the nest tube survey and habitat assessment, Dormice are considered highly likely to be absent from the site. No specific impact avoidance or mitigation measures are therefore recommended in relation to Dormice.

6 REFERENCES

Bright, P., Morris, P. and Mitchell-Jones, T. (2006) *The Dormouse Conservation Handbook, 2nd Edition*. English Nature, Peterborough.

HDA (2017) *Padnell Grange: Ecological Appraisal*. Hankinson Duckett Associates, Wallingford.

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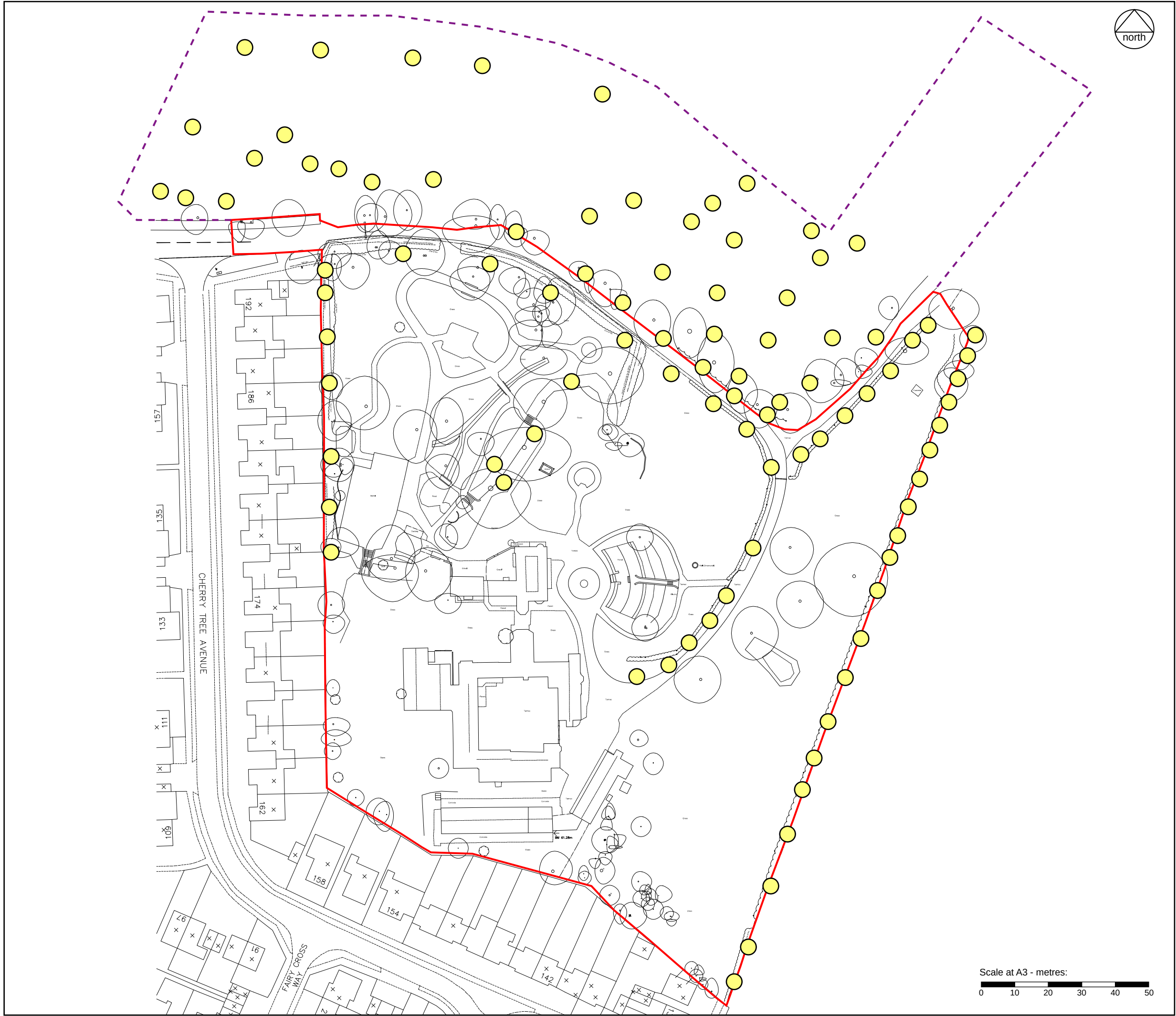
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APPENDIX A

Dormouse Survey Summary Plan



- KEY**
- Site boundary
 - Wider survey area boundary
 - Dormouse tube

No evidence of Dormouse activity was recorded during the Dormouse survey.

CLIENT:
Bellway Homes
PROJECT:
Padnell Grange
TITLE:
Dormouse Survey Summary Plan
SCALE AT A3: See scale bar DATE: July 2018

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