# Appendix 10.1k Waye Lane – Dormouse Survey Report

# LINHAY HILL QUARRY: WAYE LANE

# **DORMOUSE SURVEY REPORT**



On behalf of E & JW Glendinning Ltd.

MARCH 2016

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## **SUMMARY**

E&JW Glendinning Ltd. is proposing an extension of their existing operation at Linhay Hill limestone quarry, near Ashburton. The proposals will involve the permanent closure of a section of Alston Lane, and consequently a replacement highway is being proposed which will largely follow the route of an existing track to the north of the main quarry, known as 'Waye Lane'.

During an Extended Phase 1 Habitat Survey of the replacement route carried out in January 2015, suitable habitat for Dormice was identified on either side of the proposed route in the form of hedges, small areas of semi-natural broadleaved woodland, plantation woodlands and pockets of dense scrub. Collectively these habitats were found to provide a continuous corridor of suitable Dormouse habitat which is well-connected to the surrounding landscape.

During a desk study exercise, no Dormouse records were found within the 1km study area. However, their presence within habitats surrounding and connected to the site has previously been identified during Dormouse surveys carried out in relation to the quarry extension proposals, as reported in *Linhay Hill Quarry: Extension Area – Dormouse Survey Report* (Woodfield Ecology, March 2016).

The survey objective was to establish the presence / likely absence of Dormouse along the length of the proposed replacement route and immediate surrounds. A total of 214 nest tubes were deployed in April 2015 in all areas of suitable habitat (see Figure 1) and were checked for Dormice or evidence of occupancy (in the form of characteristically woven nests) on a monthly basis until October 2015. A nut search was also carried out in October 2015 within the only small stand of Hazel identified within the Site.

The nest tube survey confirmed the presence of Dormice within the site and a maximum of 8 nest tubes were found to contain Dormice or evidence of recent occupation during any check, representing a maximum tube occupancy rate of 3.8%. The maximum count of individuals recorded on any one survey visit was 3 (2 adults and 1 juvenile). Dormouse records were widely distributed across the Site, with presence confirmed within a broad range of habitats including within the young plantation woodlands which line the proposed route.

No evidence of Dormice was identified during the nut search; however, the effectiveness of this survey technique was limited by a lack of Hazel within the Site.

Based on the recorded presence of a permanent, viable (breeding) population of Dormice, and factoring in the known presence of this species in the surrounding area as well as population trends at both a national and county-level, overall the Site is considered to be of County importance for this species.



### 1.0 INTRODUCTION

#### 1.1 OVERVIEW & SURVEY OBJECTIVES

Woodfield Ecology was commissioned to carry out a presence / likely absence survey for Dormouse *Muscardinus avellanarius* survey on behalf of E&JW Glendinning Ltd. within surrounding land to the north-west of Linhay Hill Quarry near Ashburton, Devon. A planning application is in preparation for the extension of the quarry to the north-east which will extend the operational lifespan of this working limestone quarry. The proposals require a replacement highway for Alston Lane which currently separates the existing quarry from the extension area, and it is this aspect of the proposals which is the focus of the following report.

The proposed replacement highway largely follows the route of an existing track known as 'Waye Lane' for much of its length which runs to the north of the existing quarry and is currently used for access to properties at Waye, farm access and as a public footpath. The proposed route has a total length of 1.3km and will connect with existing highways at either end (Place Lane at the south-western end and Alston Lane in the north-east) via new road junctions. The road will resemble a traditional single-track Devon lane and the alignment will lie within a c.4.25m width which will narrow / widen in places according to local constraints and the requirement for passing places. In addition, a c.210m length of the existing single-track Balland Lane will be widened as part of the proposals.

For the purposes of this survey, a 50m wide corridor on either side of the centre-line of the proposed Waye Lane replacement route, together with the section of Balland Lane where widening is proposed was defined as the 'Site', as shown on Figure 1.

#### 1.2 CONSERVATION STATUS & PROTECTION

#### 1.2.1 Conservation Status

Dormice are primarily arboreal, typically inhabiting woodland, hedgerow and scrub habitat. They are naturally scarce due to low population densities and recruitment, and specialist habitat requirements (Morris, 2004). For these reasons they are particularly vulnerable to habitat loss and fragmentation resulting from agricultural change and other developments. They are now extinct in seven counties of England and their distribution has declined by more than a half during the twentieth century (Bright et al., 1996).

Devon is a major stronghold of the species. However, whilst no detailed quantification of population change has been possible (due to lack of comparable data over time), indirect evidence from the losses of hedgerow length and declines in quality of hedgerows and



woodlands that have occurred in the county over the past few decades, indicate that Dormice have probably also declined in Devon (Devon BAP, May 2009).

#### 1.2.2 Legislation

The Dormouse is a fully protected species under the Wildlife and Countryside Act (1981; as amended) and is also a European Protected Species (EPS) under the Conservation of Habitats and Species Regulations (2010), as amended. Taken together these pieces of legislation make it an offence to:

- deliberately capture, injure or kill any wild animal of a European protected species;
- deliberately disturb animals of any such species. Disturbance of animals includes 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; or
- damage or destroy a breeding site or resting place of such an animal (including sites that are currently unoccupied).

For development works which would contravene the above legislation a derogation licence must be applied for, which in England is issued by Natural England. In accordance with the requirements of the Habitat Regulations, a licence can only be issued where the following requirements are satisfied:

- The proposal is necessary to 'preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment'.
- There must be 'no satisfactory alternative'; and
- 'The action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range'.

Dormice are also listed as Species of Principal Importance (SPI) for the Conservation of Biodiversity in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

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, to have regard to priority species and habitats in exercising their functions including development control and planning.



#### 1.2.3 Planning Policy

The National Planning Policy Framework (NPPF) forms the basis for planning decisions with respect to conserving and enhancing the natural environment. The ODPM circular 06/2005 provides supplementary guidance, including confirmation that the presence of a legally protected species may be a material consideration in the making of planning decisions.

The NPPF sets out, amongst other points, how at an overview level the 'planning system should contribute to and enhance the national and local environment' by:

- recognising the wider benefits of ecosystem services; and
- minimising impacts on biodiversity and providing net gains in biodiversity where
  possible, contributing to the Government's commitment to halt the overall
  decline in biodiversity, including by establishing coherent ecological networks that
  are more resilient to current and future pressures...'

A list of principles which local planning authorities should follow when determining planning applications is included in the NPPF. They include the following:

- 'if significant harm resulting from a development cannot be avoided...adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- …opportunities to incorporate biodiversity in and around developments should be encouraged.'

In addition, the Dartmoor National Park Core Strategy and Development Management and Delivery Development Plan Document (DPD) include a number of policies which include for protected species:

- 'protect, maintain or enhance the biodiversity interests, and seek opportunities to restore or recreate habitats or linkages between them;
- further the conservation and enhancement of nationally protected species or habitats;
- conserve, enhance or restore priority habitats and species;
- protect and where appropriate enhance other defined sites, features, habitats, species, networks or natural processes of ecological importance;
- ensure that effective avoidance or mitigation measures are implemented (which may include off-site compensation); and
- result in no net loss of biodiversity.'

The Dormouse is also a priority species in the UK Biodiversity Action Plan (UKBAP) and receives targeted conservation efforts at a local-level through its inclusion in the Devon BAP.



#### 1.3 PRE-EXISTING SURVEY INFORMATION & RECORDS

In January 2015, an Extended Phase 1 Habitat Survey of the Waye Lane replacement route was completed by Woodfield Ecology which was supported by an ecological desk study exercise. Records of legally protected species and species of conservation concern were requested from Devon Biodiversity Records Centre (DBRC) for the Site and within a 1km radius.

DBRC did not hold any Dormouse records within the 1km study area. However, their presence within habitats surrounding and connected to the Site has previously been identified during Dormouse surveys carried out in relation to the quarry extension proposals, as reported in *Linhay Hill Quarry: Extension Area – Dormouse Survey Report* (Woodfield Ecology, March 2016).

During the Extended Phase 1 Habitat Survey, suitable habitat for Dormice was identified within the Site itself in the form of dense and regularly managed hedges which line the existing track, small areas of semi-natural broadleaved woodland, plantation woodlands (in particular along the more diverse and less shaded margins) and pockets of dense scrub. Collectively these habitats were found to provide a continuous corridor of suitable Dormouse habitat along the entire length of the Site which was well-connected to the surrounding landscape via an extensive hedgerow network, particularly to the north-west. These habitats also offered a good diversity of woody shrub species including those known to be of value to Dormice (Bright et. al. 2006) for foraging and offered suitable nesting and hibernation sites, particularly in the more mature hedges at the north-eastern end of the Site.



## 2.0 METHODOLOGY

#### 2.1 NEST TUBE SURVEY

A nest tube survey was carried out between April – October 2015 (inclusive) in line with current best practice guidance (Bright et. al., 2006).

A total of 214 nest tubes were deployed in April 2015 within suitable habitat within the Site in the locations shown on Figure 1. Tubes were spaced approximately 20m apart and were fixed firmly using wire underneath horizontal branches of trees / shrubs, with entrances typically facing into the centre of the shrub / tree and at an angle of no greater than 45° (with the entrance lower to avoid ingress of rain etc.).

Dormouse nest tubes consist of a length of corrugated plastic tubing with a wooden sliding tray which also forms the end of the tube. Nest tubes can be utilised by Dormice as an alternative to tree holes and other natural nesting sites. Other species, such as Wood Mice *Apodemus sylvaticus* or birds may also use the Dormouse nest tubes; however, Dormice build nests that are readily identifiable. Their nests are tightly woven, usually made from the bark stripped from honeysuckle or clematis, but occasionally nests are created from grass and other tall plants such as bracken (Chanin and Woods, 2003).

Tubes were checked for Dormice or evidence of occupation by Dormice on a monthly basis by a licensed surveyor (refer to Section 2.4 below), with the first check carried out in May 2015 and the final check (and tubes collected) in October 2015.

To provide an indication of the thoroughness of a survey for Dormouse, using best practice guidance (Bright et. al., 2006), a score can be derived based on an index of probability of finding Dormice present in any one month, as shown in Table 1 below.

Table 1: Index of Probability of finding Dormice present in nest tubes in any one month (Bright et. al, 2006)

Month	Index of Probability (based on 50 tubes installed within a survey area)
April	1
May	4
June	2
July	2
August	5
September	7
October	2
November	2



The sum of the above indices is then calculated to give an overall score, which may be increased or decreased proportionate to the actual number of tubes deployed within the Site (i.e. if 100 tubes are used whilst still maintaining the recommended spacing between tubes, the overall score can be doubled, according to guidelines produced by Natural England, 2011). A minimum overall score of 20 is required in order to have confidence in a negative (likely absent) result.

Given that 214 tubes were deployed within the Site and were left in situ between April – October, the overall score (sum of the indices of probability) is 23 considering values per month only, or 92 if the number of tubes is factored in. Given that survey effort far exceeds the minimum requirements and it is considered that the results provide a reliable level of evidence.

#### 2.2 NUT SEARCH

A nut search was carried out within the plantation woodland at the southern end of the Site within a stand dominated by Hazel *Corylus avellana* during October 2015 (refer to Q1 on Figure 1). This followed the standard methodology of searching a 10m x 10m area under Hazel shrubs for 20 minutes. All hazel nuts encountered during this time were collected, counted and opened nuts were analysed for signs of characteristic gnawing by Dormouse or other species including Grey Squirrel *Sciurus carolinensis*, Wood Mouse and Bank Vole *Clethrionomys glareolus*.

#### 2.3 BASELINE EVALUATION CRITERIA

The ecological valuation is based on the guidelines set out in Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal (CIEEM, 2016). The known or potential value of an ecological resource or feature is determined within the following geographical context:

- International and European;
- National;
- Regional (i.e. South West England);
- County (Devon); and
- Local.



#### 2.4 DATES OF SURVEY & PERSONNEL

The dates for each of the survey visits are shown in Table 2 below:

**Table 2: Dormouse Survey Dates** 

Task	Date			
Deployment of 214 nest tubes	14 <sup>th</sup> April 2015			
Monthly nest tube inspections	22 <sup>nd</sup> May 2015			
	22 <sup>nd</sup> June 2015			
	20 <sup>th</sup> July 2015			
	25 <sup>th</sup> August 2015			
	15 <sup>th</sup> September 2015			
Final check & collection of nest tubes	11 <sup>th</sup> October 2015			
Nut searches i	11 <sup>th</sup> October 2015			

All surveys were undertaken by Becky Prudden MCIEEM who has over 10 years of experience of carrying out Dormouse surveys and holds a Natural England survey licence for this species: Class Survey Licence WML CL10a (Dormouse Level 1) registration no. 2015-8571-CLS-CLS.

#### 2.5 SURVEY LIMITATIONS

#### 2.5.1 Nest Tube Survey

With regards the interpretation of nest tube survey results, caution is required as a lack of any evidence of Dormice within nest tubes does not necessarily indicate absence. Where habitat is optimal Dormice will often favour natural nest sites such as hollow tree branches, old bird nests etc. which can mean that the artificial nest tubes are not used. Despite this, although it is virtually impossible to prove that Dormice are absent from any area of appropriate habitat within their natural range, an adequate survey will give confidence that any significant populations will have been detected (Bright et. al., 2006).

Whilst the vast majority of tubes were checked on each survey visit, due to dense and impenetrable vegetation growth within some of the hedges, not all tubes could be located on every survey visit. However, this only ever affected a maximum of four nest tubes on any one survey visit and replacements for any damaged or missing tubes were made (where the risk of repeat interference was considered negligible). As such a limited number of the 214 tubes present were affected at any time, this is not considered to place any constraints upon the interpretation of the results.



#### 2.5.2 Nut Search

Due to the limited amount of Hazel found within the Site, only 1 quadrat was searched in the location shown on Figure 1 (see Q1). In addition, within the surveyed stand, very few Hazel shrubs were found to have heavily-fruited that season which is considered to have limited the effectiveness of this particular survey technique. However, given that the main element of the survey (nest tube survey) was carried out without significant constraints, the results of this element alone are considered sufficiently robust to provide a reliable indication of presence / absence of Dormice within the Site.

## 3.0 RESULTS

#### 3.1 NEST TUBE SURVEY

During the nest tube survey, the presence of Dormice was confirmed within the Site. The full results of the Dormouse nest tube survey are shown in Appendix 1 and Figure 2 shows the location of nest tubes occupied by Dormice, or where evidence of occupation was found.

Table 3 below provides a summary of the nest tube survey results. Given that the number of tubes checked on each survey varied slightly due to a small number of tubes not being located for the reasons outlined in section 2.5.1 above, Dormouse occupancy rates are expressed as a percentage of the overall number of tubes found on any one visit.

**Table 3: Summary of Nest Tube Survey Results 2015** 

	May	June	July	August	Sept	October
Total No. of tubes checked	211	210	211	211	210	213
Tube Nos. showing recent signs of Dormouse occupancy		66	66, 146, 170	66, 135, 146, 153, 170	8, 44, 104, 135, 146	10, 42, 51, 66, 93, 123, 130, 145
No. of Dormice found (adults & juveniles)	0	0	1 adult	0	2 adults 1 juvenile	2 adults
No. of tubes with signs of recent Dormouse occupancy (occupied & unoccupied nests)	0	1	3	5	5	8



	May	June	July	August	Sept	October
% of tubes showing recent signs of Dormouse occupancy	0%	0.5%	1.4%	2.4%	2.4%	3.8%

The occupancy of Dormice within nest tubes increased over the survey period, with a maximum of 8 nest tubes found to contain Dormice or evidence of recent occupation during the check in October, representing a maximum tube occupancy rate of 3.8%. The maximum count of individuals recorded on any one survey visit was 3 (2 adults and 1 juveniles), which was recorded during the check in September.

During the nest tube survey the presence of Dormice was confirmed from a wide cross-section of habitats along the length of the proposed replacement route as shown on Figure 2 and listed below:

- Edge of the plantation woodland opposite Place House (Tube 170)
- Within dense scrub along the edge of the main quarry, adjacent to the existing Waye Lane track (Tube 153)
- Within a newly planted Hawthorn hedge (WH7) lining the existing track (Tubes 145-147)
- Within mature hedges alongside the existing track (Tube 66 in WH3b and 104 in WH5) and connecting hedgerows (Tube 135 in WH16);
- Within the central plantation itself (Tubes 123 and 130)
- Within the most northerly plantation near Waye, particularly along its southern margin (Tubes 42, 44, 51 and 93)
- Within the hedge lining Alston Lane (Tubes 8 and 10 in WH20).

Incidental records of other species found using the nest tubes included frequent records of Wood Mouse as well as occasional bird nests (predominantly Blue Tit *Cyanistes caeruleus*).

#### 3.2 NUT SEARCH

During the nut search, no evidence of Dormice in the form of characteristically opened nuts was found. The full results of the search carried out at Q1 are provided in Table 4 below.



**Table 4: Results of Nut Search** 

Quadrat	Tally of Hazelnuts found within quadrat opened by:				Total No. of opened nuts	% of nuts in quadrat
	Grey Squirrel	Wood Mouse	Bank Vole	Dormouse	found	opened by Dormice
Q1	34	2	2	0	38	0

The vast majority of opened hazelnuts showed characteristics of having been opened by Grey Squirrel with Wood Mouse and Bank Vole-gnawed hazelnuts both found to be infrequent within the quadrat. As outlined in section 2.5.2, due to the limited availability of Hazel within the Site (of which none was found to have to have heavily fruited), the results of the nut search have not been relied upon during the interpretation of the results.



## 4.0 VALUATION AND CONCLUSIONS

The Dormouse surveys carried out between April – October 2015 have confirmed the presence of Dormice across the Site along the length of the proposed replacement route. The distribution of records indicated that Dormice do not appear to strongly favour one particular habitat type or locality within the Site, with presence confirmed from a wide range of habitats including the young plantation woodlands, young hedgerows as well as more mature hedges and areas of dense scrub. Due to the high degree of habitat connectivity both within the Site as well as with surrounding countryside, particularly to the north-west and north-east (within the extension area), it is considered highly likely that the individuals recorded form part of a much larger metapopulation found within this part of the Dartmoor National Park.

It is not possible to accurately determine the density of the Dormouse population present based on field survey data. Notwithstanding this, densities of dormice are naturally thought to be quite low in England, compared with other small mammals. In early summer there are typically only 3 to 5 (but sometimes up to 10) adults per ha in deciduous and coniferous habitats with an mean spring density of 1.3 adults per ha in hedgerows (or approximately 1 adult every 300m) (Bright et al 2006).

Based on the maximum count of 2 adult Dormice recorded on any one survey visit, together with the presence of a juvenile which indicates successful breeding, the recorded Dormouse population appears to be stable and viable. Using the average densities presented in Bright et. al 2006 and based on a hedgerow network with a total length of 2.7km and woodland totalling c.3.5ha, it can therefore be assumed that the Site as a whole could potentially support in the region of 27 adult Dormice (based on a mean spring density of 1 adult per 300m of hedgerow and 5 adults per ha of woodland). This is considered most likely to be an over-estimate however, based on the variable nature of the habitats present, with, for example, the densely shaded interiors of the existing plantations offering fewer natural nesting and foraging opportunities than the more diverse margins.

Whilst Devon remains a stronghold for this species, the Dormouse has undergone dramatic population declines elsewhere within the UK, and local trends suggest a similar decline may be occurring at a county-level (refer to Section 1.2.1). Overall, the Site is therefore considered to be of County importance for the Dormouse population it supports.



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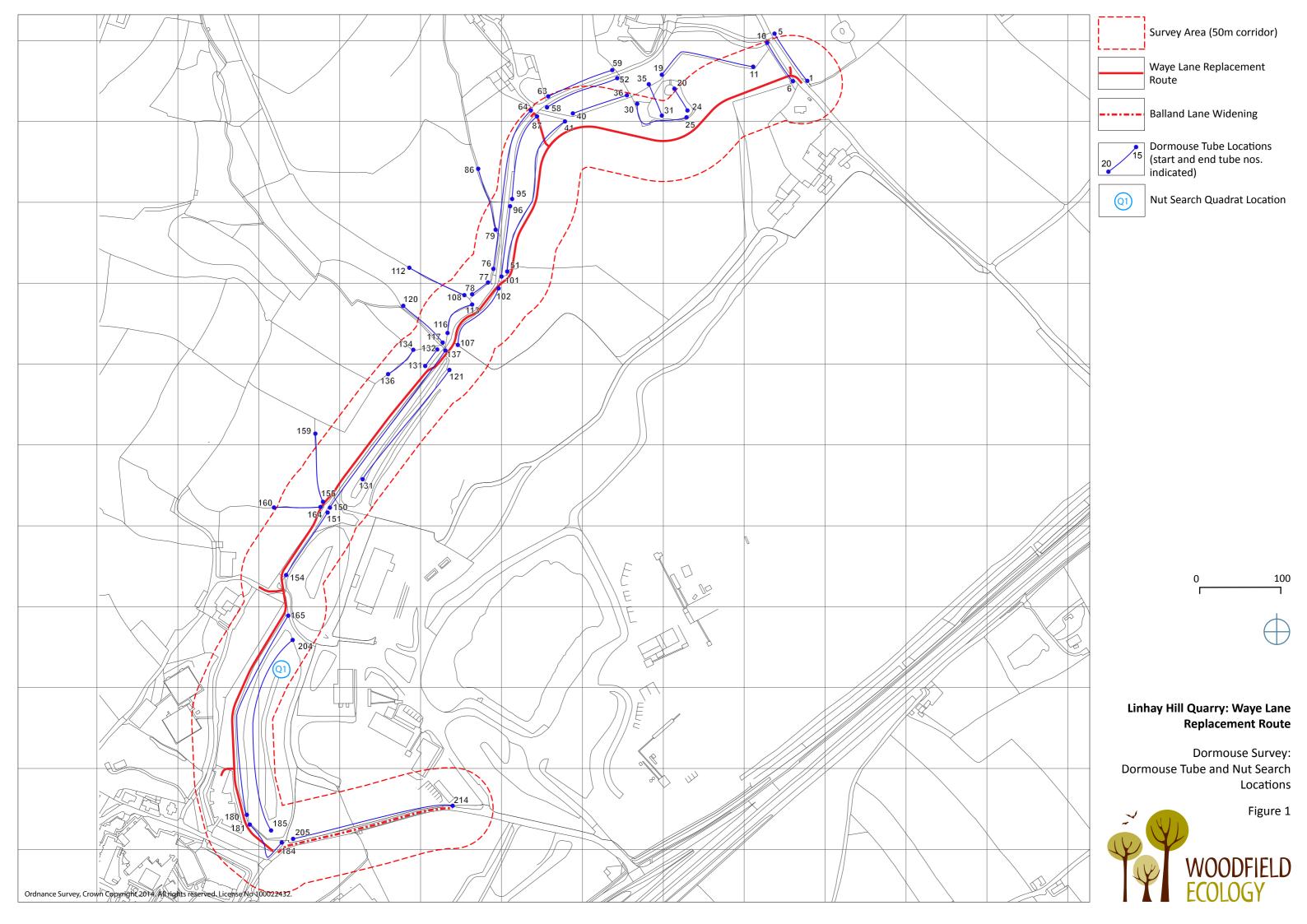
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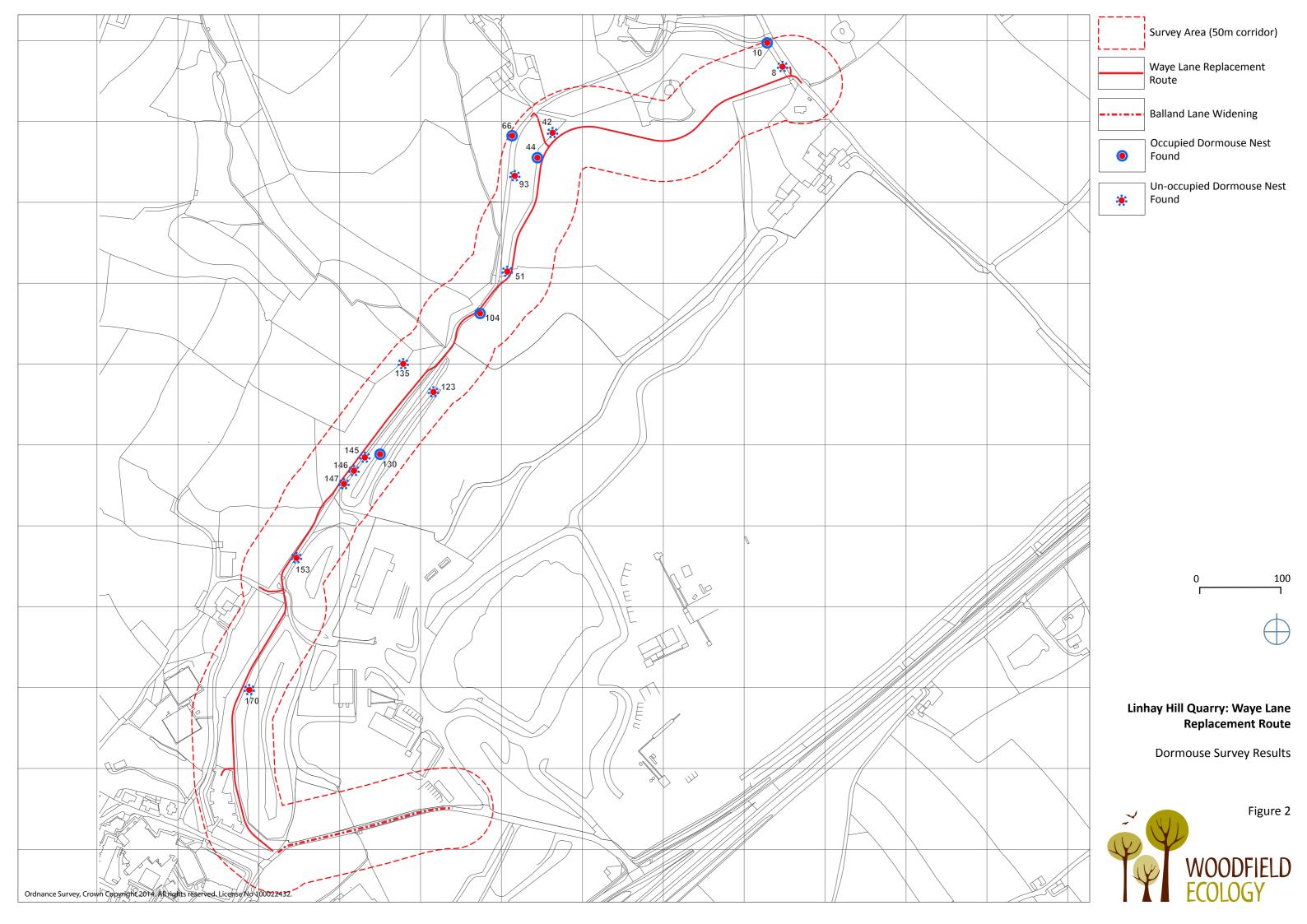
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LINHAY HILL QUARRY: WAYE LANE

E&JW GLENDINNING LTD.

DORMOUSE SURVEY REPORT

MARCH 2016

# **APPENDIX A: NEST TUBE SURVEY DATA**

Tube	Habitat (refer	Attached to	May	June	July	August	September:	October:
No.	to Phase 1		Date of Check:	Date of Check:	Dates of Check:	Date of Check:	Date of Check:	Date of Check:
	report)		22/05/2015	22/06/2015	20/07/2015	25/08/2015	15/09/2015	11/10/2015
1	Hedge (WH21)	Hazel						
2		Hazel						
3		Bramble				Tube not found	Tube not found	
4		Ash						Wood Mouse food cache
5						Occupied Wood	Unoccupied Wood	Unoccupied Wood
		Blackthorn				Mouse nest (1 adult present)	Mouse nest	Mouse nest
6	Hedge (WH20)	Holly						
7		Hawthorn	Unoccupied Wood Mouse nest					
8		Hawthorn					Unoccupied Dormouse nest	Old nest remnants
9		Hawthorn						
10		Beech						Occupied Dormouse nest (1 adult female present)
11	Mixed	Scot's Pine						
12	Plantation	Scot's Pine						
13	]	Scot's Pine						
14		Ash		Unoccupied Wood Mouse nest	Unoccupied Wood Mouse nest	Unoccupied Wood Mouse nest	Old remnant nest	Unoccupied Wood Mouse nest



Tube	Habitat (refer	Attached to	May	June	July	August	September:	October:
No.	to Phase 1		Date of Check:	Date of Check:	Dates of Check:	Date of Check:	Date of Check:	Date of Check:
	report)		22/05/2015	22/06/2015	20/07/2015	25/08/2015	15/09/2015	11/10/2015
15		Scot's Pine						
16		Scot's Pine						
17		Ash						
18		Scot's Pine						
19		Hawthorn						
20	Broadleaved	Goat Willow						
21	Woodland	Goat Willow						
22		Goat Willow						
23		Goat Willow						
24		Goat Willow						
25		Hawthorn						
26		Hawthorn						
27		Beech						
28		Blackthorn						
29		Blackthorn						
30		Blackthorn						
31		Goat Willow						
32		Goat Willow						
33		Goat Willow						
34		Yew						
35		Hawthorn						
36	Mixed	Holly						
37	Plantation	Scot's Pine		Partial bird's nest (abandoned)	Bird nest remnants	Bird nest remnants	Bird nest remnants	Bird nest remnants
38		Scot's Pine						



Tube	Habitat (refer	Attached to	May	June	July	August	September:	October:
No.	to Phase 1		Date of Check:	Date of Check:	Dates of Check:	Date of Check:	Date of Check:	Date of Check:
	report)		22/05/2015	22/06/2015	20/07/2015	25/08/2015	15/09/2015	11/10/2015
39		Oak						
40		Oak						
41		Sycamore						
42		Scot's Pine						Unoccupied
		3cot s Fille						Dormouse nest
43								Wood Mouse
		Scot's Pine						feeding remains /
								droppings
44							Occupied Dormouse	Old nest remnants
		Beech					nest (1 adult present	
							– unsexed)	
45		Scot's Pine						Wood mouse food
		Scot 3 Time						cache
46		Elder				Unoccupied Wood	Old remnant nest	Old remnant nest &
						Mouse nest		feeding remains
47		Scot's Pine						
48		Sycamore						Unoccupied Wood
		,						Mouse nest
49		Hawthorn						
50		Ash						
51		Dogwood						Unoccupied
		Dogwood						Dormouse nest
52		Goat Willow						
53		Hawthorn						
54		Hawthorn						



Tube	Habitat (refer	Attached to	May	June	July	August	September:	October:
No.	to Phase 1		Date of Check:	Date of Check:	Dates of Check:	Date of Check:	Date of Check:	Date of Check:
	report)		22/05/2015	22/06/2015	20/07/2015	25/08/2015	15/09/2015	11/10/2015
55		Hawthorn						
56	]	Hawthorn						
57		Hawthorn						
58		Scot's Pine						
59	Hedge (WH1)	Blackthorn					Unoccupied Wood mouse nest (fresh)	Unoccupied Wood Mouse nest
60		Sycamore						
61		Hawthorn						
62		Hawthorn	Tube not found	Tube not found – replacement made				
63		Hawthorn		,				
64	Hedge (WH3a &	Sycamore						
65	WH3b)	Sycamore						
66		Ash		Unoccupied Dormouse nest	Occupied Dormouse nest (1 adult present – unsexed)	Unoccupied Dormouse nest	Old remnant nest	Unoccupied Dormouse nest (fresh material)
67		Hawthorn						
68		Hazel						
69		Hazel						
70		Wych Elm						
71		Sycamore						
72		English Elm						
73		Sycamore						
74		Sycamore						
75		Hawthorn						



Tube	Habitat (refer	Attached to	May	June	July	August	September:	October:
No.	to Phase 1		Date of Check:	Date of Check:	Dates of Check:	Date of Check:	Date of Check:	Date of Check:
	report)		22/05/2015	22/06/2015	20/07/2015	25/08/2015	15/09/2015	11/10/2015
76		lvy						
77	Hedge (WH9)	Hawthorn						
78		Hawthorn						
79		Hazel						
80		Hazel	Bird's nest (none present)	Old bird nest remnants (removed)				
81		Sycamore						
82		Holly						
83		Holly						
84		Alder						
85		Hazel						
86		Goat Willow						
87	Mixed	Rowan						
88	Plantation	Elder						
89		Rowan						
90		Beech						
91		Sycamore						
92		Beech						
93		Goat Willow						Unoccupied Dormouse nest
94		Hawthorn						
95		Hawthorn						
96	Hedge (WH4)	Blackthorn						
97		Sycamore						
98		Sycamore						



Tube	Habitat (refer	Attached to	May	June	July	August	September:	October:
No.	to Phase 1		Date of Check:	Date of Check:	Dates of Check:	Date of Check:	Date of Check:	Date of Check:
	report)		22/05/2015	22/06/2015	20/07/2015	25/08/2015	15/09/2015	11/10/2015
99		Sycamore						
100		Sycamore						
101		Sweet						
		Chestnut						
102	Hedge (WH5)	Ash						
103		Field Maple						
104							Occupied Dormouse	Old nest remnants
		Dogwood					nest (1 adult, 1	
		Dogwood					juvenile present -	
							not sexed).	
105		Hazel						
106		Hazel						
107		Wild Plum						
108	Hedge (WH18)	Hazel						
109		Hawthorn						
110		Hazel						
111		Hazel						
112		Oak						
113	Hedge (WH6)	Hazel						
114		Hazel						
115	]	Hazel						
116		Sycamore						
117	Hedge (WH17)	Holly						
118		Holly						
119		Hazel						



Tube	Habitat (refer	Attached to	May	June	July	August	September:	October:
No.	to Phase 1		Date of Check:	Date of Check:	Dates of Check:	Date of Check:	Date of Check:	Date of Check:
	report)		22/05/2015	22/06/2015	20/07/2015	25/08/2015	15/09/2015	11/10/2015
120		Hazel						
121	Mixed	Beech						
122	Plantation	Beech						
123		Poplar						Unoccupied Dormouse nest
124	1	Scot's Pine						
125	1	Beech						
126	1	Scot's Pine						
127		Scot's Pine						
128		Beech						
129		Hazel						
130		Beech						Occupied Dormouse nest (1 adult present unsexed)
131		Hawthorn						
132	Hedge (WH16)	Blackthorn						
133		Alder						
134		Hazel						
135		Holly				Unoccupied Dormouse nest	Unoccupied Dormouse nest	
136		Hazel					Wood Mouse food cache / remains	
137	Hedge (WH7)	Hawthorn						
138		Hawthorn						
139		Hawthorn				Unoccupied Wood		



Tube	Habitat (refer	Attached to	May	June	July	August	September:	October:
No.	to Phase 1		Date of Check:	Date of Check:	Dates of Check:	Date of Check:	Date of Check:	Date of Check:
	report)		22/05/2015	22/06/2015	20/07/2015	25/08/2015	15/09/2015	11/10/2015
						Mouse nest		
140		Hawthorn						
141		Hawthorn						
142		Hawthorn			Unoccupied Wood Mouse nest	Old remnant nest	Old remnant nest	
143		Hawthorn						
144		Hawthorn						
145		Hawthorn						Unoccupied Dormouse nest
146		Hawthorn			Unoccupied Dormouse nest	Unoccupied Dormouse nest (fresh leaves)	Old remnant nest	Old nest remnants
147		Hawthorn					Unoccupied Dormouse nest	Old nest remnants
148		Hawthorn						
149		Hawthorn						
150		Wild Plum			Tube not found			
151	Hedge (WH8)	Dogwood	Tube not found	Tube not found	Tube not found	Tube not found	Tube not found	
152		Dogwood					Tube not found	
153		Fence		Tube not found		Unoccupied Dormouse nest	Old nest remnants	Old nest remnants
154		Ash						Unoccupied Wood Mouse nest
155	Hedge (WH15)	Holly						
156		Ash						



Tube	Habitat (refer	Attached to	May	June	July	August	September:	October:
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	report)		22/05/2015	22/06/2015	20/07/2015	25/08/2015	15/09/2015	11/10/2015
157		Hawthorn						Unoccupied Wood Mouse nest
158		Blackthorn						
159		Elder						
160	Hedge (WH14)	Goat Willow						
161		Elder						
162		Hawthorn						
163		Goat Willow						
164		Blackthorn						
165	Mixed	Hawthorn						
166	Plantation	Hawthorn						
167		Hawthorn						
168		Beech						
169		Hawthorn						
170		Hawthorn			Unoccupied Dormouse nest	Unoccupied Dormouse nest	Old nest remnants	Old nest remnants
171		Hawthorn						
172		Hawthorn						
173		Beech						
174		Beech						
175		Hawthorn						
176		Beech						
177		Hawthorn						
178		Beech						
179		Hawthorn						



Tube	Habitat (refer	Attached to	May	June	July	August	September:	October:
No.	to Phase 1		Date of Check:	Date of Check:	Dates of Check:	Date of Check:	Date of Check:	Date of Check:
	report)		22/05/2015	22/06/2015	20/07/2015	25/08/2015	15/09/2015	11/10/2015
180		Hawthorn						
181	Dense Scrub	Butterfly-						
		bush						
182		Blackthorn						
183	Hedge (WH9)	Hazel						
184		Elm		Tube not	found – not replaced du	e to high likelihood of in	terference	
185	Mixed	Hazel						
186	Plantation	Beech						
187		Sycamore						
188		Elder						
189		Scot's Pine						
190		Scot's Pine						
191		Horse						
		Chestnut						
192		Scot's Pine						
193		Scot's Pine						
194		Hazel						
195		Hazel						
196		Elder						
197		Scot's Pine						
198		Beech						
199		Elder						
200		Elder						
201		Hazel						
202		Scot's Pine						



Tube	Habitat (refer	Attached to	May	June	July	August	September:	October:
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	report)		22/05/2015	22/06/2015	20/07/2015	25/08/2015	15/09/2015	11/10/2015
203		Hazel						
204		Hazel						
205	Hedge (WH12)	Guelder						
		Rose						
206	-	Hazel						
207		Hawthorn						
208		Holly						
209		Hazel						
210		lvy						
211		Hazel						
212		Hazel						
213		Hazel						
214		Blackthorn						
Total N	lo. of tubes checke	d	211	210	211	211	210	213
No. of Dormice found (adults & juveniles)		0	0	1	0	3 (2 adults, 1 juvenile)	2	
No. of tubes with signs of recent		0	1	3	5	5	8	
Dormouse occupancy (occupied &								
unoccupied nests)								
% of tu	% of tubes showing signs of recent		0%	0.5%	1.4%	2.4%	2.4%	3.8%
Dormo	use occupancy							



#### **DOCUMENT CONTROL INFORMATION**

PROJECT NAME: Linhay Hill Quarry **CLIENT:** E & JW Glendinning Ltd. **REPORT TITLE:** Waye Lane - Dormouse Survey Report **ISSUE DATE:** March 2016 POSITION SIGNATURE **PREPARED BY: Becky Prudden** Principal **MCIEEM** Ecologist, Woodfield **Ecology** POSITION **CHECKED BY:** Oliver Prudden **Technical MCIEEM** Advisor, Woodfield

#### **REVISIONS:**

Rev No.	Comments	Date
001	Final Issue	March 2016

**Ecology** 

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