M3 Junction 9 Improvement

Scheme Number: TR010055

6.3 Environmental Statement Appendix 8.1f - Hazel Dormouse Survey Report 2018

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

Volume 6

November 2022

Infrastructure Planning

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

M3 Junction 9 Improvement
Development Consent Order 202[x]

6.3 ENVIRONMENTAL STATEMENT- APPENDIX 8.1f: HAZEL DORMOUSE SURVEY REPORT 2018

Regulation Number:	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference:	TR010055
Application Document Reference:	6.3
BIM Document Reference:	HE-WSP-GEN-M3J9PCF3-RP-LE-00012
Author:	M3 Junction 9 Improvement Project Team, Highways England

Version	Date	Status of Version
Rev 0	November 2022	Application Submission

M3 JUNCTION 9 IMPROVEMENT SCHEME

HAZEL DORMOUSE SURVEY REPORT

Highways England

First Issue

Project no: 70016638
Date: January 2018

Mountbatten House
Basing View
Basingstoke
Hampshire
RG21 4HJ

Tel: +00 44(0) 1256 318 800
Fax: +00 44(0) 1256 318 700

QUALITY MANAGEMENT

ISSUE/REVISION	FIRST ISSUE	REVISION 1	REVISION 2	REVISION 3
Remarks	P01			
Date	January 2018			
Prepared by	Bradley Williams			
Signature	[redacted] Williams, Bradley 2018.01.15 13:17:13 Z			
Checked by	Luke Roberts			
Signature	[redacted] Roberts, Luke 2018.01.15 13:03:00 Z			
Authorised by	Adrian Hutchings			
Signature	[redacted] Hutchings, Adrian I am approving this document 2018.01.15 13:36:13 Z			
Project number	70016638			
Report number	P01			
File reference	HE-WSP-GEN-M3J9PCF3-RP-LE-00012			

PRODUCTION TEAM

CLIENT (HIGHWAYS ENGLAND)

Major Projects Programme Lead	Steve Hoesli
Major Projects Senior Project Manager	Neil Andrew
Major Projects Project Manager	Simon Hewett
Senior User Representative	Paul Benham

WSP

RIS Area 3 Programme Director	Steve O'Donnell	Tel: +44 (0)1684 851751
RIS Area 3 Programme Manager	Stuart Craig	Tel: +44 (0)1256 318 660
M3 Junction 9 Project Director	Roland Diffey	Tel: +44 (0) 1256 318 777
M3 Junction 9 Project Manager	Pradeep Agrawal	Tel: +44 (0)207 337 1700
RIS DCO Programme Lead	Amy Hallam	Tel: +44 (0)1392 229 700

TABLE OF CONTENTS

TABLE OF TABLES

APPENDICES

1 EXECUTIVE SUMMARY

1.1.1 M3 Junction 9 has been proposed for redevelopment in order to help reduce congestion associated with the junction by improving the flow of traffic. Three options hereafter referred to as the 'Proposed Works', have been taken forward and are assessed within this report.

1.1.2 WSP was commissioned by Highways England to complete a hazel dormouse *Muscardinus avellanarius* survey of a 250m buffer of the maximum extent of works ('the Site'), hereafter referred to as the 'Survey Area', to confirm presence or likely absence of dormouse.

1.1.3 The Survey Area is currently comprised of a variety of habitats including broadleaved semi-natural and plantation woodland, dense scrub and hedgerows, all of which are suitable habitat for hazel dormouse.

1.1.4 A dormouse survey, comprising a nest tube survey of suitable habitat (where access allowed) within the Survey Area, was completed in accordance with best practice guidance (English Nature 2006) between May and November 2017. This survey concluded dormice are present and breeding within the Survey Area.

1.1.5 In the first instance it is recommended that woodland, hedgerow and scrub habitat is retained within the Proposed Works designs as far as possible. Current design drawings indicate that some loss of dormouse habitat will be unavoidable. It will therefore be necessary to formulate an appropriate mitigation and compensation strategy, and to obtain a European Protected Species licence from Natural England prior to commencement of construction.

1.1.6 The final design of the Proposed Works should also seek to avoid the fragmentation of suitable dormouse habitat, to prevent isolation of dormouse populations. Recommendations to avoid habitat fragmentation are given in Section 6 of this report.

1.1.7 Mitigation and compensation should seek to ensure maintenance of dormouse populations within the Survey Area at favourable conservation status; the approach would be likely to include the retention of connectivity between suitable habitat, phased clearance methods, creation and long term maintenance of compensatory habitat and monitoring of dormouse populations following construction. Recommended measures are described in further detail in Section 6.

1.1.8 Given the complexity of the scheme and potential scale of impacts to dormice, it is advised that Natural England should be consulted with respect to detailed mitigation proposals as they emerge.

1.1.9 It should be noted that phased clearance requires partial removal of habitat whilst dormice are hibernating (December to March inclusive), followed by completion of habitat removal once dormice are active in Spring; and that the development of compensatory habitat can take several years and should be completed in advance of habitat loss.

1.1.10 In addition, recommendations have been made for woodland and hedgerow management to enhance the Survey Area for dormice, in accordance with the National Planning Policy Framework (NPPF) (2012).

2 INTRODUCTION

2.1 PROJECT BACKGROUND

2.1.1 Junction 9 of the M3 is a key transport interchange on the strategic road network which connects South Hampshire and the wider sub-region, with London via the M3 and the Midlands via the A34 (which also links to the principal east-west A303 corridor). A large volume of traffic currently uses the interchange (approximately 6,000 vehicles per hour during the peak periods), which acts as a bottleneck on the local and strategic highway network, causing significant delays. M3 Junction 9 has been proposed for redevelopment in order to help reduce congestion around this stretch of the road by improving the flow of traffic.

2.1.2 Three options have been taken forward to Project Control Framework (PCF) Stage 2 and assessed within this report, namely:

- Option 14: Northbound and Southbound A34 Free Flow Design
- Option 16B: Incremental Delivery – Northbound A34 Free Flow Link
- Option 16C: Incremental Delivery – Southbound A34 Free Flow Design

2.1.3 The works are hereafter referred to as the 'Proposed Works'. Further details of the Proposed Works are presented within the PCF Stage 2 Environmental Assessment Report (EAR) (HE551511-WSP-GEN-M3J9PCF2-RP-LE-00041). The anticipated maximum extent of the works is shown on Figure 2-1, and is hereafter referred to as 'the Site.' An ecological Survey Area has been defined comprising land within 250m of the Site, see Figure 2-1.

2.2 ECOLOGICAL BACKGROUND

2.2.1 A desk study undertaken for the M3J9 PCF Stage 1 identified 8 hazel dormouse *Muscardinus avellanarius* records within a 2km search area of the works extent, one of which was recorded within the same 1km grid square of the Proposed Works (WSP 2016).

2.2.2 An extended Phase 1 habitat survey was conducted during the spring of 2017 (WSP, 2017), which confirmed the presence of habitats suitable for hazel dormouse. These include hedgerows, scrub, semi-natural and plantation broadleaved woodland as well as hazel coppiced woodland. The M3, A34 and A33 pass through the Survey Area from north to south, fragmenting the suitable habitat for dormice and reducing connectivity between habitat east and west of the M3. The suitable habitat present on either side of the M3 and A34 is linked in a north-south direction through woodland and hedgerow connections. Suitable habitat was also identified within the Winnall Industrial Estate and land south of Tesco. Habitat south of Tesco has limited connectivity to the wider habitat within the Survey Area.

2.3 BRIEF AND OBJECTIVES

2.3.1 Highways England commissioned WSP to:

- Complete a hazel dormouse survey in accordance with good practice guidance (English Nature, now Natural England 2006) to establish whether hazel dormice are present or likely absent from the Survey Area.
- Provide a concise technical report setting out the survey methods used, reporting the survey results, and providing outline recommendations in relation to the project and hazel dormice (with reference to legislation and planning policy relevant to this species).

2.3.2 The results of this survey, and subsequent recommendations, are detailed within this report.

3 METHODS

3.1 OVERVIEW

3.1.1 To establish whether dormice are present or likely absent, dormouse tubes were installed within suitable habitat in the Survey Area in May 2017 and checked once a month from June to November 2017 (inclusive). The survey work was completed in accordance with current good practice guidance (English Nature (now Natural England), 2006).

3.2 DORMOUSE SURVEY

3.2.1 245 dormouse tubes were installed within the Survey Area in May 2017 over the period of a week, see Figure 3-1. Nest tubes were installed at 20m spacing in suitable habitat within the Survey Area (comprising woodland, woodland edge, scrub and hedgerows), attached to branches of a variety of native woody species. Species to which tubes were attached included hazel *Corylus avellana*, hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa*, field maple *Acer campestre* and dogwood *Cornus sanguinea*. The tube survey was designed to ensure effective coverage of the Survey Area as a whole.

3.2.2 Nest tubes within the Survey Area were surveyed once a month under suitable weather conditions between June and November 2017. Following the completion of survey work, nest tubes were taken down except where dormice were present. An additional visit was made in December 2017 to collect tubes in areas where dormouse presence had been confirmed. This duration of survey ensured sufficient points (>20) were achieved to demonstrate likely absence in accordance with best practice guidance (English Nature (EN), 2006). During each survey every tube was checked for presence of dormice or evidence of dormice, for example characteristic nests or opened nuts. When presence of hazel dormouse was confirmed, tubes within discrete land parcels were no longer surveyed on a monthly basis because nest tube surveys do not allow any inferences to be made on population status beyond presence or absence.

3.2.3 The Survey Area was divided into land parcels to aid the description of the Survey Area and provide habitat details. These parcels comprise:

- Land East of the M3
- M3 Junction 9 Roundabout
- Land North of the A34 and A33
- Pudding Lane Farm
- Easton Down Farm
- Winnall Industrial Estate
- Woodland East of the Itchen
- Land South of Tesco.

3.3 DATES OF SURVEY AND PERSONNEL

3.3.1 The dormouse survey was led and completed by an experienced surveyor (Natural England survey licence number: 2016-21700-CLS-CLS).

3.3.2 The surveyor has over 6 years' experience of ecological survey, including extensive dormouse survey experience and has held a Natural England dormouse survey licence since 2010.

3.3.3 The dates of the completed surveys are summarised in Table 3-1 below.

Table 3-1 - Dates of surveys

SURVEY NUMBER	1	2	3	4	5	6	7
Date	23rd-26th June	19th-21st July	23rd & 31st August	20th September	27th October	30th & 31st November	19th December
Locations surveyed	All Parcels	All Parcels	All Parcels	M3 J9 Roundabout Woodland East of the Itchen Pudding Lane Farm Winnall Industrial Estate Land South of Tesco	M3 J9 Roundabout Woodland East of the Itchen Pudding Lane Farm Land South of Tesco	All Parcels	Easton Down Farm

3.4 EVALUATION

3.4.1 The value of the Site for dormice was evaluated using guidance from the Chartered Institute of Ecology and Environmental Management (CIEEM 2016). This guidance recommends that valuation of site importance is made with reference to a geographical framework (local, regional, national or international value). To inform the assessment in this report, the extent and quality of habitat present was considered in the context of the distribution and abundance of dormice locally and nationally.

3.5 NOTES AND LIMITATIONS

3.5.1 A small number of tubes were installed within Land South of Tesco and the M3 Junction 9 Roundabout due to limitations to safe access and the highways boundary:

→ Land South of Tesco is isolated from the rest of the Survey Area, but connected to the wider landscape. Whilst the survey was not sufficient to conclude presence or absence of hazel dormice, the habitat should not be directly affected by the Proposed Works.

- The habitat within the M3 Junction 9 Roundabout is sparse with much shrub and branch clearance for visibility. The habitat is isolated by major roads with no connectivity to the surrounding habitat. Overall this land parcel has low suitability for dormice. However, given their abundance in the surrounding area it is considered appropriate to assume presence on a precautionary basis.

3.5.2 One land parcel, within the north east of the Survey Area, was not accessible at the time of the survey set up. A second land parcel located between the A34 north and south bound carriageways was also not accessible for health and safety precautions. These parcels were not included within the survey. The land parcels are considered to contain suitable habitat for dormice and given dormice were recorded in adjacent habitats, it should be assumed that dormice are present in these locations.

3.5.3 Suitable habitat directly adjacent to the high speed roads (M3, A34 and A33) was not accessible for health and safety reasons during the surveys. However, it was possible in the majority of cases to survey suitable habitat from adjacent land parcels and this is not considered to be a limitation to the findings of this report, see Figure 3-1.

4 RESULTS AND EVALUATION

4.1 OVERVIEW

4.1.1 Hazel dormice were found to be present in suitable habitat across much of the Survey Area. Hazel dormouse evidence recorded included active, torpid and dead dormice as well as nests. Hazel dormice were recorded within hedgerows, broadleaved semi-natural and plantation deciduous woodland.

4.1.2 Hazel dormice were not recorded within two areas of suitable habitat, Land South of Tesco and the M3 Junction 9 Roundabout. Despite no dormouse evidence being recorded, these areas should be considered as likely supporting hazel dormice given their abundance throughout the Survey Area, see limitations in Section 3.5.

4.1.3 Suitable habitat parcels located within the north of the Survey Area which were not accessed should also be considered as likely supporting hazel dormice, given they contain suitable deciduous woodland habitat and are connected to habitat where dormice were found to be present.

4.2 RESULTS OF DORMOUSE SURVEY

4.2.1 The surveys confirmed dormouse presence within the Survey Area, see Figure 4-1. Details of dormouse evidence recorded are included in Appendix A and photographs in Appendix B.

4.2.2 Hazel dormice were recorded on all surveys between June and December 2017. They were recorded within the centre and east of the Survey Area (Easton Down Farm and Land East of the M3) during the first survey and within land parcels to the north and west of the Survey Area (Pudding Lane Farm, Winnall Industrial Estate and the Woodland East of the Itchen) during subsequent surveys. Dormice were not recorded in Land South of Tesco and the M3 Junction 9 Roundabout.

4.2.3 Hazel dormice were present within hedgerows, broadleaved semi-natural and plantation deciduous woodland. Dormouse tubes where presence was confirmed were attached to tree species including hazel *Corylus avellana*, hawthorn *Crataegus monogyna* and yew *Taxus baccata*.

4.2.4 Adult dormice were recorded in both active and torpid states. Dormouse breeding within the Survey Area was confirmed through presence of pinkies located in tube 86, a post-lactating female in tube 143, an eyes open (deceased) baby in tube 165 and juveniles in tubes 53, 103, 105 and 126. Dormouse breeding was identified within Land East of the M3, Land North of the A34/A33, Woodland East of the Itchen, Winnall Industrial Estate and Easton Down Farm.

4.3 OTHER SPECIES

4.3.1 *Apodemus* spp. (wood mouse *Apodemus sylvaticus* or yellow necked mouse *Apodemus flavicollis*) were recorded in a number of tubes across the Survey Area. A number of nests were also recorded and were also seen to replace dormouse nest in tubes 165 and 172.

4.4 EVALUATION OF THE SITE FOR DORMOUSE

4.4.1 Though dormice are considered declining at a national level (Joint Nature Conservation Committee (JNCC), 2010), Hampshire is a national stronghold for this species, supporting around 10% of the national population (Hampshire Biodiversity Partnership (HBP, undated)). The species is listed as scarce in the County in the Priority Species list (HBP, undated), but it is possible dormice are under recorded, and Ewald (2004) conclude the species is widespread in the county, though still considered relatively rare. Hampshire is an extensively wooded county; woodland comprises approximately 17.7% (Hampshire County Council (HCC), undated) or 20% (HCC, 2006) of Hampshire, of which 7.4% is classified as ancient woodland (HCC, undated). The desk study undertaken for the Proposed Works identified 8 records of hazel dormice within 2km (WSP 2016).

4.4.2 Considering the extent of habitat present and given that dormice are relatively widespread in the broad geographic area, the dormouse population within the Survey Area is preliminarily assessed to be of value at up to the District level.

5 IMPLICATIONS FOR DEVELOPMENT

5.1 OVERVIEW

5.1.1 In the absence of mitigation the Proposed Works has potential to affect dormice in the following ways:

- Through displacement of dormice where the development leads to the loss or degradation of occupied habitat and where habitat loss results in the fragmentation of habitat.
- Killing, injury or disturbance of individuals during the construction phase.
- Disturbance from artificial lighting during the operational phase.

5.1.2 Therefore, the following legislation and planning policy is relevant.

5.2 LEGAL COMPLIANCE

5.2.1 Dormice are afforded a high level of protection under the Conservation of Habitats and Species Regulations 2017 (the 'Habitat Regulations'). The legislation means that it is an offence to:

- deliberately capture, injure or kill a wild dormouse
- deliberately disturb wild dormice; '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.'
- damage or destroy a breeding site or resting place used by this species.

5.2.2 Protection is also afforded under the Wildlife and Countryside Act 1981 (as amended) with respect to disturbance of animals when using places of shelter, and obstruction of access to places of shelter.

5.2.3 Due to the high level of protection afforded to dormice and their habitat, mitigation for this species is governed by a strict licensing procedure administered by Natural England (normally, planning permission must be obtained before a licence can be sought). Licencing is subject to three tests, as defined under the Habitats Regulations 2010, these must also be applied by the planning authority before granting permission for activities affecting dormice. For permission to be granted the following criteria must be 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 is no satisfactory alternative'.
- The proposals 'will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range'.

5.2.4 The dormouse is also listed as a Species of Principal Importance (SPI) for the Conservation of Biodiversity in England in accordance with Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Under Section 40 of the NERC Act (2006) public bodies (including local planning authorities) have a duty to have regard for the conservation of SPI when carrying out their functions, including determining planning applications.

5.3 PLANNING POLICY COMPLIANCE

5.3.1 As the project qualifies as a Nationally Significant Infrastructure Project (NSIP), it must adhere to the National Policy Statement (NPS) for National Networks (Department for Transport 2014). This states *inter alia* that the principles and objectives of the government's 2012 Natural Environment White Paper (NEWP) and Biodiversity 2020 Strategy should be adhered to. These promote moving progressively from net biodiversity loss to net gain by supporting healthy, well-functioning ecosystems and establishing more coherent ecological networks that are more resilient to current and future pressures.

5.3.2 The NPS also states that the likely significant effects on internationally, nationally and locally designated sites of ecological conservation importance, on protected species and on habitats, on other species identified as being of principal importance for the conservation of biodiversity and that potential impacts on ecosystems should be clearly set out.

5.3.3 At the national level the National Planning Policy Framework (2012) forms the basis for planning system decisions with respect to conserving and enhancing the natural environment, including dormice; the ODPM circular 06/2005 also provides supplementary guidance, including confirmation that '*the presence of a protected species is a material consideration when a planning authority is considering a development proposal'.*

5.3.4 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…'

5.3.5 A list of principles which local planning authorities should follow when determining planning applications is included in the NPPF, and includes 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;*
- *- planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland…unless the need for, and benefits of, the development in that location clearly outweigh the loss…'*

5.3.6 At a local level, Winchester City Council and the South Downs National Park have adopted the Winchester District Local Plan Part 1 (Adopted 2013). Chapter 9 is entitled 'High Quality Environment' with policy CP16 entitled Biodiversity. This states '*The Local Planning Authority will support development which maintains, protects and enhances biodiversity across the District, delivering a net gain in biodiversity, and has regard to the following:*

- *Protecting sites of international, European, and national importance, and local nature conservation sites, from inappropriate development.*

- *Supporting habitats that are important to maintain the integrity of European sites.*
- *New development will be required to show how biodiversity can be retained, protected and enhanced through its design and implementation, for example by designing for wildlife, delivering BAP targets and enhancing Biodiversity Opportunity Areas.*
- *New development will be required to avoid adverse impacts, or if unavoidable ensure that impacts are appropriately mitigated, with compensation measures used only as a last resort.*
- *Development proposals will only be supported if the benefits of the development clearly outweigh the harm to the habitat and/or species.*
- *Maintaining a District wide network of local wildlife sites and corridors to support the integrity of the biodiversity network, prevent fragmentation, and enable biodiversity to respond and adapt to the impacts of climate change.*
- *Supporting and contributing to the targets set out in the District's Biodiversity Action Plan (BAP) for priority habitats and species.*
- *Planning proposals that have the potential to affect priority habitats and/or species or sites of geological importance will be required to take account of evidence and relevant assessments or surveys.'*

5.3.7 Mitigation, compensation and enhancement measures are recommended in Section 6 to enable the Proposed Works to be compliant with the above legislation and planning policy.

6 RECOMMENDATIONS

6.1 OVERVIEW

6.1.1 Dormice were confirmed present across the entire Survey Area. All road alignment options under consideration at present will affect dormice. A European Protected Species Licence (EPSL) informed by an appropriate mitigation strategy will be required from Natural England before construction takes place. Given the complexity of the scheme and potential scale of impacts to dormice, it is advised that Natural England should be consulted with respect to detailed mitigation proposals as they emerge.

6.2 AVOIDANCE AND DESIGN RECOMMENDATIONS

6.2.1 In the first instance it is recommended that detailed designs seek to retain woodland, hedgerow and scrub habitat as far as possible. Where it is not possible to retain woodland, hedgerow and scrub habitat, it is important that significant effort is made to avoid and minimiseifragmentation of habitat. Hazel dormice are an arboreal species that rarely descends to the ground and is therefore particularly vulnerable to the effects of habitat fragmentation.

6.2.2 Of particular concern is an area of plantation woodland totalling around 0.8ha located to north of the Highways depot adjacent to the M3J9 Roundabout. The presence of hazel dormice has been confirmed in this area, and based on preliminary designs; it will become isolated from the wider landscape by all of the options under consideration. Based on Table 2 of the Dormouse Conservation Handbook (English Nature, 2006), the pre-breeding carrying capacity of this woodland is approximately 1-2 adult dormice. If connectivity between this area and the wider landscape cannot be maintained, it is likely that dormouse presence within this area of woodland would not persist.

6.2.3 The following recommendations should be considered during the detailed design stage:

- Where loss of hedgerow, scrub or woodland habitat cannot be avoided it will be necessary to formulate an appropriate mitigation and compensation strategy. This strategy should describe both mitigation during the construction phase in the form of seasonal timing of clearance works and use of specific clearance methods, creation of new compensatory habitat and long term monitoring of dormouse populations on the Survey Area. The habitat retention and creation measures should be fully integrated into the Proposed Works designs and any associated phasing with new habitat creation completed in the earliest possible phase as it takes time for new habitat to develop to become suitable for dormice.
- Fragmentation of retained habitat should be avoided. Where possible, remnant woodlands should be linked by woodland strips or hedgerows to facilitate dispersal and effectively increase the continuous population of dormice. Likewise, newly created habitat should also be connected to suitable retained habitat to facilitate the dispersal, foraging and commuting of hazel dormice throughout the wider landscape.
- Effort should be made to maintain connectivity of woody habitat to any isolated areas of woodland, scrub or hedgerow. With particular regard to the plantation woodland mentioned within Section 6.2.2, consideration should be given as to whether detailed designs can facilitate contiguous woody habitat to this area such as by the use of green bridges or similar structures. If this is not possible, it may be appropriate to assume the loss of the dormouse population from that area and provide habitat compensation accordingly.

6.3 CONSTRUCTION MITIGATION MEASURES

6.3.1 Where the land to be cleared forms part of a larger continuous area of dormouse habitat, then persuading the animals to leave by progressively clearing narrow strips of habitat is recommended.

6.3.2 This would include seasonal timing of clearance works and appropriate phasing to reduce the risk of incidental killing and / or injury of dormice. This may be achieved by implementing a two stage process, with above ground vegetation cleared to approximately 200mm during the winter (December to March) and stumps grubbed out during the following Spring. This phased approach is recommended in order to avoid impacts upon breeding dormice which would result from habitat clearance during the dormouse active season (April to November), whilst also minimising the risk of impacts upon hibernating dormice (which hibernate at or below ground level). Clearance works should be completed using hand tools to avoid crushing of dormice in hibernation nests at ground level by machinery and in tandem with inspection of the vegetation by a suitably qualified ecologist, to identify any hibernation nests present and enable measures to be taken to ensure protection of these. Each strip should be narrower than the radius of a typical home range for that habitat (an average of 50 m) encouraging the dormice to leave the area as the habitat becomes unsuitable.

6.3.3 Smaller areas of dormouse habitat (indicatively less than 50m^2) may be undertaken in one stage during the active season (indicatively late April- early October but avoiding the breeding season June-late September).

6.3.4 Where persuading dormice to relocate from habitat parcels is inappropriate, then dormice should be translocated, following guidance provided in the Dormouse Conservation Handbook (EN, 2006). This is not a favoured option due to the difficulty of catching all individuals and establishing them at an appropriate site. Where translocation is to occur, a suitable recipient site must be identified in advance.

6.3.5 In addition, long term monitoring is recommended to measure the success of the mitigation and compensation measures described above. Monitoring of dormice using an array of at least 50 dormouse boxes, sited within suitable habitat and checked for five years following completion of development is recommended.

6.4 LANDSCAPE COMPENSATION MEASURES

6.4.1 To mitigate for potential effects upon hazel dormice within the Survey Area resulting from habitat loss and fragmentation, the following measures are recommended:

- An equivalent or greater area of new habitat should be created to compensate for any habitat loss. This should comprise species diverse woodland and hedgerow planting, with the species mix targeted to provide a variety of food sources for dormice (see indicative species list in Appendix C). A species-rich shrub layer is required to provide food sources which should include hazel, honeysuckle and bramble. This new habitat should be created far enough in advance of loss of existing habitat for it to be become established, and include more mature shrub specimens, to allow time for the shrubs and trees to mature and fruit and develop into suitable habitat. A commitment to retention and appropriate management[1] of newly created and retained habitat in the long term will also be necessary at the planning submission stage, the details of which would form part of a future EPSL application.

- Planting of species rich hedgerows to connect retained and newly planted woodland. Species-rich hedgerows offer good habitat and may be an essential means of dispersal between woodland sites, reducing the isolation effect of small woods, as well as providing suitable habitat for permanent occupation.
- Sensitive hedgerow management across the Proposed Works to ensure availability of fruits as a food source for dormice in the long term (as available in currently un-managed hedgerows). This should comprise a long rotation management regime, with hedgerows cut every 3-5 years, with only one side of any individual hedge trimmed in any one year (EN 2006). Space should be allowed within development designs to accommodate the resulting broad hedgerows.
- Avoidance of lighting of the woodland and any retained hedgerows, with hoods, shields or cowls used as appropriate to avoid light spill into retained habitat.

6.5 ECOLOGICAL ENHANCEMENT MEASURES

6.5.1 Biodiversity gain in association with development is encouraged by NPPF (2012). In accordance with this policy it is recommended the following opportunities for enhancing the Site for dormice should be considered:

- Gradual removal of conifer from the retained woodlands, with replacement of conifers with planting in keeping with existing native species within the woodland, to include oak and hazel (also see indicative list of species suitable for dormice included within Appendix C).
- Retention of brash piles within the woodland to form suitable hibernation habitat.
- Creation of new hedgerows in association with the Proposed Works.
- Use native broadleaf species listed within Appendix C within any woodland re-stocking or screening plantation and any hedgerow creation or augmentation.
- Retention of areas within the development designs in which scrub is allowed to develop; with long term management plans designed with regard for maintenance of areas of this habitat type. Maintenance of scrub should include edge management, cutting to encourage regrowth, sensitive timing of cutting to avoid berry yielding plants and rotational cutting to create a diverse structure. Habitat within the verges of the highways could be targeted for this enhancement.

7 CONCLUSIONS

7.1.1 Survey work completed in accordance with best practice guidance (EN, 2006) has concluded dormice are present within the Survey Area. Consequently dormice will need to be taken into consideration within all road alignment options under consideration, to enable compliance with the legislation and planning policy.

7.1.2 Mitigation and compensation should seek to ensure maintenance of dormouse populations within the Survey Area at favourable conservation status; the approach would be likely to include retention of the connectivity between suitable habitat, a phased clearance method, creation and long term maintenance of compensatory habitat and monitoring of dormouse populations following construction.

8 REFERENCES

8.1 PROJECT REFERENCES

- WSP (2016). M3 Junction 9 Improvement PCF Stage 1. Ecological Desk Study
- WSP (2017). M3 Junction 9 Improvement PCF Stage 2. Phase 1 Habitat Survey

8.2 TECHNICAL REFERENCES

- CIEEM (2016) Guidelines For Ecological Impact Assessment In the UK And Ireland. Available: https://www.cieem.net/data/files/Publications/EcIA_Guidelines_Terrestrial_Freshwater_and_Coastal_Jan_2016.pdf. Accessed 02/01/18.
- Department for Communities and Local Government (2012), National Planning Policy Framework. Department for Communities and Local Government, London.
- English Nature (Now Natural England) (2006) The Dormouse Conservation Handbook
- Ewald N (2004) Distribution and Status of the Dormouse *Muscardinus avallanarius* in Hampshire, Hampshire Wildlife Trust, available: http://hampshiredormousegroup.files.wordpress.com/2010/02/distribution-and-status-of-the-dormouse-in-hampshire.pdf; accessed 12/12/17.
- Hampshire Biodiversity Partnership. (Undated). Biodiversity Action Plan for Hampshire: Volume 2. Available: http://www.hampshirebiodiversity.org.uk/pdf/vol2/Vol2ActionPlansp1-13.pdf. Accessed 12/12/17.
- Hampshire Biodiversity Partnership (Undated). Biodiversity Action Plan for Hampshire, Priority Species in Hampshire. Available: http://www.hampshirebiodiversity.org.uk/pdf/vol2/Vol 2 Priority Species list.pdf. Accessed 12/12/17.
- Hampshire Biodiversity Partnership (Undated). Ancient and Semi-Natural Woodland Habitat Action Plan. http://www.hampshirebiodiversity.org.uk/pdf/PublishedPlans/ASNWoodHAPjjDTP2.pdf
- Hampshire County Council (2006), The State of Hampshire's Biodiversity.
- Hampshire County Council (undated), Woodland Cover in South East England. Available: http://www3.hants.gov.uk/woodlandcover.pdf. Accessed October 2012.
- Her Majesty's Stationary Office (HMSO) (1981). Wildlife and Countryside Act (as amended by the Countryside and Rights of Way Act 2000).
- HMSO (2005) Biodiversity and Geological Conservation – Statutory Obligations and Their Impact Within the Planning System. Office of the Deputy Prime Minister (ODPM) Circular 06/2005 HMSO, Norwich.
- HMSO (2006) Natural Environment and Rural Communities Act.
- HMSO (2010). The Conservation of Habitats and Species Regulations 2017 as amended (the Habitat Regulations).
- Joint Nature Conservation Committee (2010) UK priority species pages version 2 *Muscardinus avellanarius*. Available: http://jncc.defra.gov.uk/_speciespages/462.pdf. Accessed 12/12/17
- Natural England (2012) FAQ-HD 13/11/2012 Interim FAQs hazel or common dormouse. Available: http://www.naturalengland.org.uk/Images/faq-hd_tcm6-34296.pdf Accessed 12/12/17.

→ Winchester City Council (2013) Winchester District Local Plan Part 1 Chapter 9 High Quality Environment. Available: http://www.winchester.gov.uk/planning-policy/local-plan-part-1/adoption/. Accessed 02/01/18.

9 FIGURES

FIGURE 2-1 – SITE LOCATION PLAN

REV	DATE	BY	DESCRIPTION	CHK	APP

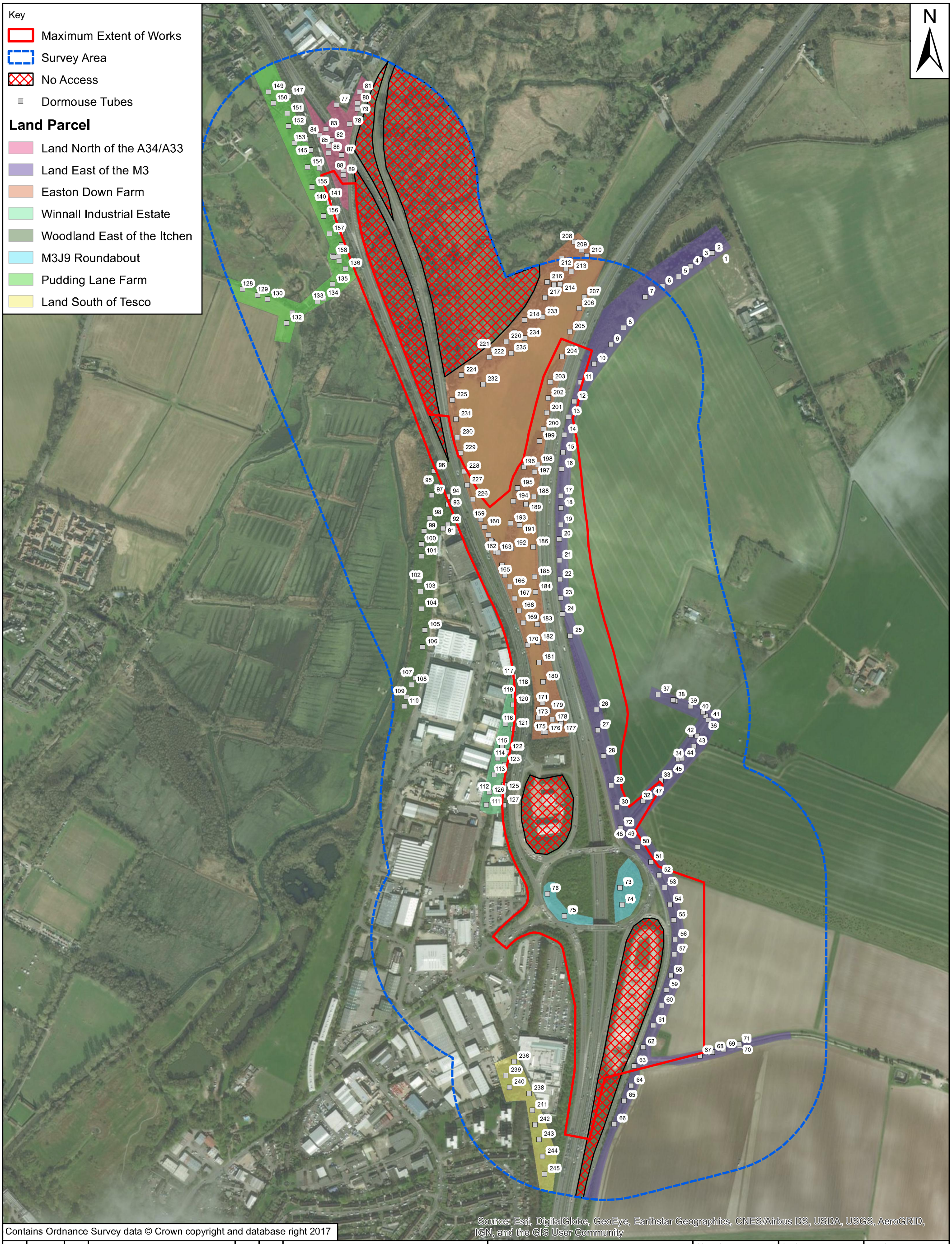
DRAWING STATUS: FINAL

PROJECT: M3 Junction 9

TITLE: Site Location Plan

SCALE @ A3:	CHECKED:	APPROVED:
7,000	LR	AH
FILE: Site Plan	DRAWN: BW	DATE: January 2018
PROJECT No: 70016638	DRAWING No: 2-1	REV: A

FIGURE 3-1 – DORMOUSE SURVEY AREA



REV	DATE	BY	DESCRIPTION	CHK	APP

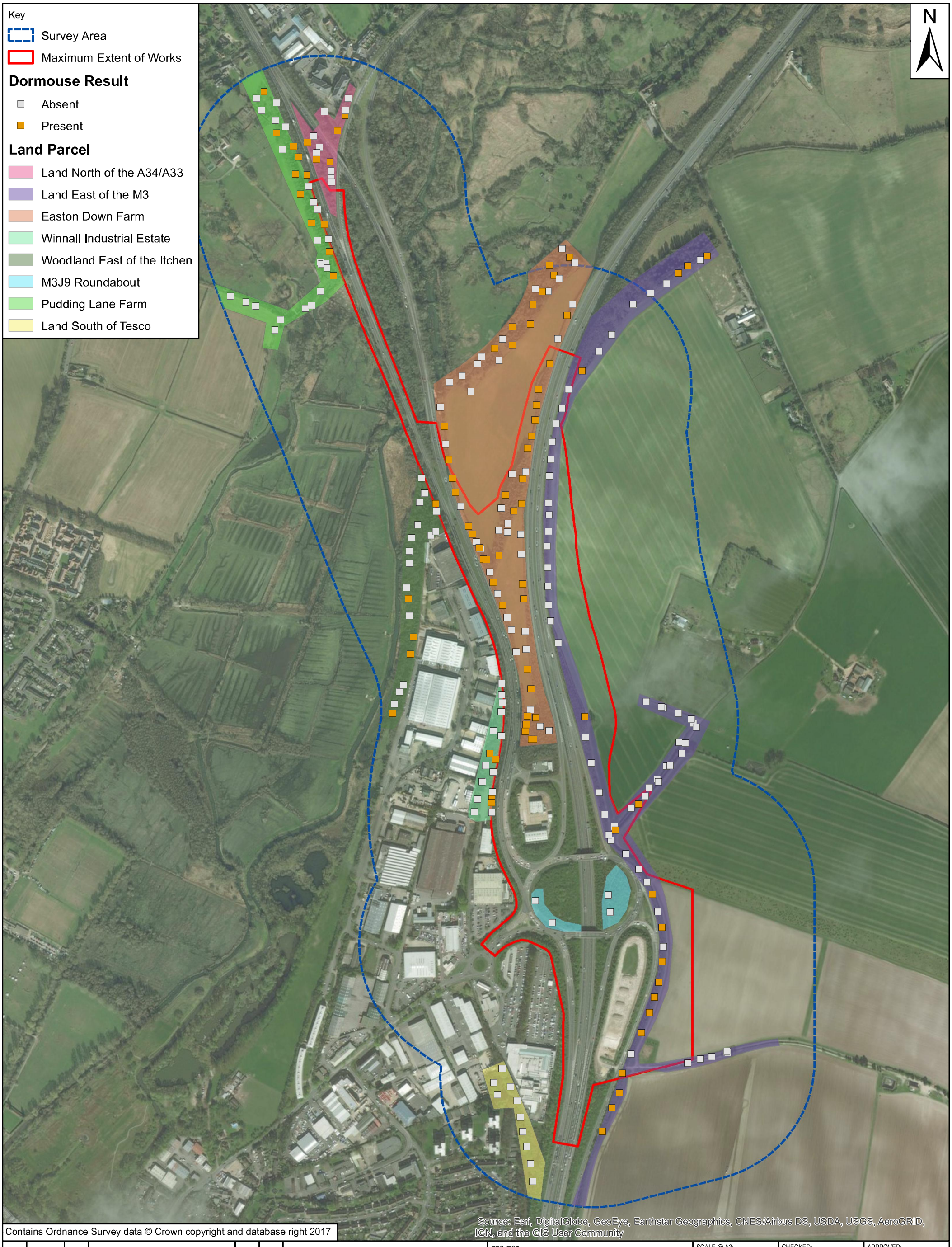
DRAWING STATUS: FINAL

PROJECT: M3 JUNCTION 9

TITLE: DORMOUSE TUBE LOCATIONS

SCALE @ A3:	CHECKED:	APPROVED:
7,000	LR	AH
FILE: Dormouse Tubes	DRAWN: BW	DATE: January 2018
PROJECT No: 70016638	DRAWING No: 3-1	REV: A

FIGURE 4-1 – DORMOUSE SURVEY RESULTS



REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: FINAL

PROJECT: M3 JUNCTION 9

TITLE: DORMOUSE SURVEY RESULTS

SCALE @ A3:	CHECKED:	APPROVED:
7,000	LR	AH
FILE: DM Results	DRAWN: BW	DATE: January 2018
PROJECT No: 70016638	DRAWING No: 4-1	REV: A

highways england

Appendix A

SURVEY RESULTS

Table 1 - Dormouse Survey Results

Dormouse Survey Results								
Tube Number	Tube Location	June	July	August	September	October	November	December
1	Land east of the M3	-	-	-	N/A	N/A	Dormouse Nest	N/A
2	Land east of the M3	-	-	-	N/A	N/A	-	N/A
3	Land east of the M3	-	-	1 Active Adult Dormouse	N/A	N/A	Dormouse Nest	N/A
4	Land east of the M3	-	-	-	N/A	N/A	Dormouse Nest	N/A
5	Land east of the M3	-	-	-	N/A	N/A	-	N/A
6	Land east of the M3	-	-	-	N/A	N/A	-	N/A
7	Land east of the M3	-	-	-	N/A	N/A	-	N/A
8	Land east of the M3	-	-	-	N/A	N/A	-	N/A
9	Land east of the M3	-	-	-	N/A	N/A	-	N/A
10	Land east of the M3	-	-	-	N/A	N/A	Dormouse Nest	N/A
11	Land east of the M3	-	-	-	N/A	N/A	-	N/A
12	Land east of the M3	-	-	-	N/A	N/A	-	N/A
13	Land east of the M3	-	-	-	N/A	N/A	-	N/A
14	Land east of the M3	-	-	-	N/A	N/A	-	N/A
15	Land east of the M3	-	-	-	N/A	N/A	-	N/A
16	Land east of the M3	-	-	-	N/A	N/A	-	N/A
17	Land east of the M3	-	-	-	N/A	N/A	-	N/A
18	Land east of the M3	-	-	-	N/A	N/A	-	N/A
19	Land east of the M3	-	-	-	N/A	N/A	-	N/A
20	Land east of the M3	-	-	-	N/A	N/A	-	N/A
21	Land east of the M3	-	-	-	N/A	N/A	Dormouse Nest	N/A

Dormouse Survey Results								
Tube Number	Tube Location	June	July	August	September	October	November	December
22	Land east of the M3	-	-	-	N/A	N/A	-	N/A
23	Land east of the M3	-	-	-	N/A	N/A	-	N/A
24	Land east of the M3	-	-	-	N/A	N/A	-	N/A
25	Land east of the M3	-	-	-	N/A	N/A	-	N/A
26	Land east of the M3	-	-	-	N/A	N/A	Dormouse Nest	N/A
27	Land east of the M3	-	-	-	N/A	N/A	-	N/A
28	Land east of the M3	-	-	-	N/A	N/A	-	N/A
29	Land east of the M3	-	-	-	N/A	N/A	-	N/A
30	Land east of the M3	-	-	-	N/A	N/A	-	N/A
31	Land east of the M3	-	-	-	N/A	N/A	-	N/A
32	Land east of the M3	-	-	-	N/A	N/A	-	N/A
33	Land east of the M3	-	-	-	N/A	N/A	-	N/A
34	Land east of the M3	-	-	-	N/A	N/A	-	N/A
35	Land east of the M3	-	-	-	N/A	N/A	-	N/A
36	Land east of the M3	-	-	-	N/A	N/A	-	N/A
37	Land east of the M3	-	-	-	N/A	N/A	-	N/A
38	Land east of the M3	-	-	-	N/A	N/A	-	N/A
39	Land east of the M3	-	-	-	N/A	N/A	-	N/A
40	Land east of the M3	-	-	-	N/A	N/A	-	N/A
41	Land east of the M3	-	-	-	N/A	N/A	-	N/A
42	Land east of the M3	-	-	-	N/A	N/A	-	N/A
43	Land east of the M3	-	-	-	N/A	N/A	-	N/A

Dormouse Survey Results								
Tube Number	Tube Location	June	July	August	September	October	November	December
44	Land east of the M3	-	-	-	N/A	N/A	-	N/A
45	Land east of the M3	-	-	-	N/A	N/A	-	N/A
46	Land east of the M3	-	-	-	N/A	N/A	-	N/A
47	Land east of the M3	-	-	-	N/A	N/A	Dormouse Nest	N/A
48	Land east of the M3	-	-	-	N/A	N/A	Dormouse Nest	N/A
49	Land east of the M3	-	-	-	N/A	N/A	-	N/A
50	Land east of the M3	-	-	-	N/A	N/A	-	N/A
51	Land east of the M3	-	-	-	N/A	N/A	-	N/A
52	Land east of the M3	-	-	-	N/A	N/A	-	N/A
53	Land east of the M3	-	-	1 Active Juvenile Dormouse	N/A	N/A	Dormouse Nest	N/A
54	Land east of the M3	-	-	-	N/A	N/A	-	N/A
55	Land east of the M3	-	-	-	N/A	N/A	Dormouse Nest	N/A
56	Land east of the M3	-	-	-	N/A	N/A	-	N/A
57	Land east of the M3	Dormouse Nest	Dormouse Nest	Dormouse Nest	N/A	N/A	Dormouse Nest	N/A
58	Land east of the M3	-	-	-	N/A	N/A	Dormouse Nest	N/A
59	Land east of the M3	Dormouse Nest	Dormouse Nest	Dormouse Nest	N/A	N/A	Dormouse Nest	N/A
60	Land east of the M3	-	-	-	N/A	N/A	Dormouse Nest	N/A
61	Land east of the M3	-	-	-	N/A	N/A	Dormouse Nest	N/A
62	Land east of the M3	-	-	-	N/A	N/A	-	N/A
63	Land east of the M3	-	-	-	N/A	N/A	Dormouse Nest	N/A
64	Land east of the M3	-	-	-	N/A	N/A	Dormouse Nest	N/A

Dormouse Survey Results								
Tube Number	Tube Location	June	July	August	September	October	November	December
65	Land east of the M3	-	-	-	N/A	N/A	Dormouse Nest	N/A
66	Land east of the M3	-	-	-	N/A	N/A	-	N/A
67	Land east of the M3	-	-	-	N/A	N/A	-	N/A
68	Land east of the M3	-	-	-	N/A	N/A	-	N/A
69	Land east of the M3	-	-	-	N/A	N/A	-	N/A
70	Land east of the M3	-	-	-	N/A	N/A	-	N/A
71	Land east of the M3	-	-	-	N/A	N/A	-	N/A
72	Land east of the M3	-	-	-	N/A	N/A	-	N/A
73	M3 Junction 9 Roundabout	-	-	-	-	-	-	N/A
74	M3 Junction 9 Roundabout	-	-	-	-	-	-	N/A
75	M3 Junction 9 Roundabout	-	-	-	-	-	-	N/A
76	M3 Junction 9 Roundabout	-	-	-	-	-	-	N/A
77	Land North of the A34/A33	-	-	-	-	-	-	N/A
78	Land North of the A34/A33	-	-	-	1 Active Adult Male Dormouse	Dormouse Nest	Dormouse Nest	N/A
79	Land North of the A34/A33	-	-	-	-	-	Dormouse Nest	N/A
80	Land North of the A34/A33	-	-	-	-	-	-	N/A
81	Land North of the A34/A33	-	-	-	-	-	-	N/A

Dormouse Survey Results								
Tube Number	Tube Location	June	July	August	September	October	November	December
82	Land North of the A34/A33	-	-	-	-	-	-	N/A
83	Land North of the A34/A33	-	-	-	-	-	-	N/A
84	Land North of the A34/A33	-	-	-	Dormouse Nest	Dormouse Nest	Dormouse Nest	N/A
85	Land North of the A34/A33	-	-	-	-	-	-	N/A
86	Land North of the A34/A33	-	-	-	-	1 Active Adult Females with pinkies	Dormouse Nest	N/A
87	Land North of the A34/A33	-	-	-	-	-	Dormouse Nest	N/A
90	Land North of the A34/A33	-	-	-	-	-	-	N/A
88	Land North of the A34/A33	-	-	-	-	-	-	N/A
89	Land North of the A34/A33	-	-	-	-	-	-	N/A
91	Itchen Woodland	-	-	-	-	-	-	N/A
92	Itchen Woodland	-	-	-	-	-	-	N/A
93	Itchen Woodland	-	-	-	-	-	-	N/A
94	Itchen Woodland	-	-	-	-	-	Dormouse Nest	N/A
95	Itchen Woodland	-	-	-	-	-	-	N/A
96	Itchen Woodland	-	-	-	-	-	-	N/A
97	Itchen Woodland	-	-	-	-	-	-	N/A
98	Itchen Woodland	-	-	-	-	-	-	N/A
99	Itchen Woodland	-	-	-	-	-	-	N/A

Dormouse Survey Results								
Tube Number	Tube Location	June	July	August	September	October	November	December
100	Itchen Woodland	-	-	-	-	-	-	N/A
101	Itchen Woodland	-	-	-	-	-	-	N/A
102	Itchen Woodland	-	-	-	-	-	-	N/A
103	Itchen Woodland	-	-	-	-	3 Active Dormice – 2 Adults, 1 Juvenile	Dormouse Nest	N/A
104	Itchen Woodland	-	-	-	-	-	-	N/A
105	Itchen Woodland	-	-	-	-	2 Active Dormice – 2 Male Juveniles	1 Torpid Adult Dormouse	N/A
106	Itchen Woodland	-	-	-	-	Dormouse Nest	Dormouse Nest	N/A
107	Itchen Woodland	-	-	-	-	-	-	N/A
108	Itchen Woodland	-	-	-	-	-	-	N/A
109	Itchen Woodland	-	-	-	-	-	-	N/A
110	Itchen Woodland	-	-	Dormouse Nest	Dormouse Nest	Dormouse Nest	Dormouse Nest	N/A
111	Winnall Industrial Estate	-	-	-	-	N/A	-	N/A
112	Winnall Industrial Estate	-	-	-	-	N/A	-	N/A
113	Winnall Industrial Estate	-	-	-	-	N/A	-	N/A
114	Winnall Industrial Estate	-	-	-	-	N/A	-	N/A
115	Winnall Industrial Estate	-	-	-	-	N/A	Dormouse Nest	N/A
116	Winnall Industrial Estate	-	-	-	-	N/A	-	N/A
117	Winnall Industrial Estate	-	-	-	-	N/A	-	N/A

Dormouse Survey Results								
Tube Number	Tube Location	June	July	August	September	October	November	December
118	Winnall Industrial Estate	-	-	-	-	N/A	-	N/A
119	Winnall Industrial Estate	-	-	-	-	N/A	-	N/A
120	Winnall Industrial Estate	-	-	-	-	N/A	-	N/A
121	Winnall Industrial Estate	-	-	-	-	N/A	-	N/A
122	Winnall Industrial Estate	-	-	-	-	N/A	Dormouse Nest	N/A
123	Winnall Industrial Estate	-	-	-	-	N/A	-	N/A
124	Winnall Industrial Estate	-	-	-	-	N/A	-	N/A
125	Winnall Industrial Estate	-	-	-	-	N/A	Dormouse Nest	N/A
126	Winnall Industrial Estate	-	-	-	1 Active Juvenile Dormouse	N/A	Dormouse Nest	N/A
127	Winnall Industrial Estate	-	-	-	-	N/A	-	N/A
128	Pudding Lane Farm	-	-	-	-	-	-	N/A
129	Pudding Lane Farm	-	-	-	-	-	-	N/A
130	Pudding Lane Farm	-	-	-	-	-	-	N/A
131	Pudding Lane Farm	-	-	-	-	-	-	N/A
132	Pudding Lane Farm	-	-	-	-	-	-	N/A
133	Pudding Lane Farm	-	-	-	-	-	-	N/A
134	Pudding Lane Farm	-	-	-	-	-	-	N/A
135	Pudding Lane Farm	-	-	-	-	-	-	N/A

Dormouse Survey Results								
Tube Number	Tube Location	June	July	August	September	October	November	December
137	Pudding Lane Farm	-	-	-	-	-	Dormouse Nest	N/A
136	Pudding Lane Farm	-	-	-	-	-	Dormouse Nest	N/A
138	Pudding Lane Farm	-	-	-	-	-	-	N/A
139	Pudding Lane Farm	-	-	-	-	-	Dormouse Nest	N/A
140	Pudding Lane Farm	-	-	-	-	-	-	N/A
141	Pudding Lane Farm	-	-	-	-	-	*Apodemus* sp. nest	N/A
142	Pudding Lane Farm	-	-	-	-	-	-	N/A
143	Pudding Lane Farm	-	-	1 Active Adult female dormouse - post lactation	Dormouse Nest	Dormouse Nest	Dormouse Nest	N/A
144	Pudding Lane Farm	-	-	-	-	-	Dormouse Nest	N/A
145	Pudding Lane Farm	-	-	Brown leaves, some bark, little structure.	Dormouse Nest	Dormouse Nest	Dormouse Nest	N/A
146	Pudding Lane Farm	-	-	-	-	-	-	N/A
147	Pudding Lane Farm	-	-	-	-	-	-	N/A
148	Pudding Lane Farm	-	-	-	-	-	Slug covered nest	N/A
149	Pudding Lane Farm	-	-	-	-	-	-	N/A
150	Pudding Lane Farm	-	-	-	-	-	-	N/A
151	Pudding Lane Farm	-	-	-	-	-	-	N/A
152	Pudding Lane Farm	-	-	-	-	-	Dormouse Nest	N/A
153	Pudding Lane Farm	-	-	-	-	-	-	N/A
154	Pudding Lane Farm	-	-	-	-	-	Dormouse Nest	N/A

Dormouse Survey Results								
Tube Number	Tube Location	June	July	August	September	October	November	December
155	Pudding Lane Farm	-	-	-	-	-	2 Active Adult Dormice	N/A
156	Pudding Lane Farm	-	-	-	-	-	1 Torpid Adult Dormouse	N/A
157	Pudding Lane Farm	-	-	-	-	-	-	N/A
158	Pudding Lane Farm	-	-	-	-	-	-	N/A
159	Easton Down	-	-	-	N/A	N/A	Dormouse Nest	N/A
160	Easton Down	-	-	-	N/A	N/A	Dormouse Nest	N/A
161	Easton Down	-	-	-	N/A	N/A	Dormouse Nest	N/A
162	Easton Down	-	-	-	N/A	N/A	Dormouse Nest	N/A
163	Easton Down	-	-	-	N/A	N/A	Dormouse Nest	N/A
164	Easton Down	-	-	-	N/A	N/A	-	N/A
165	Easton Down	-	Dormouse Nest	1 Dead Eyes Open Dormouse	N/A	N/A	1 Adult *Apodemus* sp.	N/A
166	Easton Down	-	-	-	N/A	N/A	-	N/A
167	Easton Down	-	Dormouse Nest	Dormouse Nest	N/A	N/A	Dormouse Nest	N/A
168	Easton Down	-	-	-	N/A	N/A	-	N/A
169	Easton Down	-	-	-	N/A	N/A	-	N/A
170	Easton Down	-	-	-	N/A	N/A	-	N/A
171	Easton Down	-	-	-	N/A	N/A	-	N/A
172	Easton Down	-	-	-	N/A	N/A	Dormouse nest taken over by *Apodemus* sp.	N/A
173	Easton Down	-	-	-	N/A	N/A	1 Active Adult Dormouse	N/A

Dormouse Survey Results								
Tube Number	Tube Location	June	July	August	September	October	November	December
174	Easton Down	-	-	-	N/A	N/A	Dormouse Nest	N/A
175	Easton Down	-	-	1 Active Adult Dormouse	N/A	N/A	Dormouse Nest	N/A
176	Easton Down	-	-	-	N/A	N/A	Dormouse Nest	N/A
177	Easton Down	-	-	-	N/A	N/A	-	N/A
178	Easton Down	-	-	-	N/A	N/A	-	N/A
179	Easton Down	-	-	-	N/A	N/A	Dormouse Nest	N/A
180	Easton Down	-	-	-	N/A	N/A	1 Torpid Adult Dormouse	N/A
181	Easton Down	-	-	-	N/A	N/A	Dormouse Nest	N/A
182	Easton Down	-	-	-	N/A	N/A	-	N/A
183	Easton Down	-	-	-	N/A	N/A	-	N/A
184	Easton Down	-	-	-	N/A	N/A	Dormouse Nest	N/A
185	Easton Down	-	1 Active Adult Dormouse	Dormouse Nest	N/A	N/A	Dormouse Nest	N/A
186	Easton Down	-	-	-	N/A	N/A	-	N/A
187	Easton Down	-	-	-	N/A	N/A	-	N/A
188	Easton Down	1 Active Female Adult Dormouse	*Apodemus* sp. taken over nest	*Apodemus* sp. nest	N/A	N/A	Dormouse Nest	N/A
189	Easton Down	-	-	-	N/A	N/A	Dormouse Nest	N/A
190	Easton Down	-	-	-	N/A	N/A	N/A	-
191	Easton Down	-	-	-	N/A	N/A	N/A	-
192	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
193	Easton Down	-	-	-	N/A	N/A	N/A	-

Dormouse Survey Results								
Tube Number	Tube Location	June	July	August	September	October	November	December
194	Easton Down	-	-	-	N/A	N/A	N/A	-
195	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
196	Easton Down	-	-	-	N/A	N/A	N/A	-
197	Easton Down	-	-	-	N/A	N/A	N/A	Torpid Adult Dormouse
198	Easton Down	-	-	-	N/A	N/A	N/A	-
199	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
200	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
201	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
202	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
203	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
204	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
205	Easton Down	-	-	-	N/A	N/A	N/A	-
206	Easton Down	-	-	-	N/A	N/A	N/A	-
207	Easton Down	-	-	-	N/A	N/A	N/A	-
208	Easton Down	-	-	-	N/A	N/A	N/A	-
209	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
210	Easton Down	-	-	-	N/A	N/A	N/A	-
211	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
212	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
213	Easton Down	-	-	-	N/A	N/A	N/A	-
214	Easton Down	-	-	-	N/A	N/A	N/A	-

Dormouse Survey Results								
Tube Number	Tube Location	June	July	August	September	October	November	December
215	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
216	Easton Down	-	-	-	N/A	N/A	N/A	-
217	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
218	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
219	Easton Down	-	-	-	N/A	N/A	N/A	-
220	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
221	Easton Down	-	-	-	N/A	N/A	N/A	-
222	Easton Down	-	-	-	N/A	N/A	N/A	-
223	Easton Down	-	-	-	N/A	N/A	N/A	-
224	Easton Down	-	-	-	N/A	N/A	N/A	-
225	Easton Down	-	-	-	N/A	N/A	N/A	-
226	Easton Down	-	-	-	N/A	N/A	N/A	-
227	Easton Down	Dormouse Nest	Dormouse Nest	Dormouse Nest	N/A	N/A	N/A	Dormouse Nest
228	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
229	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
230	Easton Down	-	-	-	N/A	N/A	N/A	-
231	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
232	Easton Down	-	-	-	N/A	N/A	N/A	-
233	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
234	Easton Down	-	-	-	N/A	N/A	N/A	Dormouse Nest
235	Easton Down	-	-	-	N/A	N/A	N/A	-
236	South of Tesco	-	-	-	-	-	-	N/A

Dormouse Survey Results								
Tube Number	Tube Location	June	July	August	September	October	November	December
237	South of Tesco	-	-	-	-	-	-	N/A
238	South of Tesco	-	-	-	-	-	-	N/A
239	South of Tesco	-	-	-	-	-	-	N/A
240	South of Tesco	-	-	-	-	-	-	N/A
241	South of Tesco	-	-	-	-	-	-	N/A
242	South of Tesco	-	-	-	-	-	-	N/A
243	South of Tesco	-	-	-	-	-	-	N/A
244	South of Tesco	-	-	-	-	-	-	N/A
245	South of Tesco	-	-	-	-	-	-	N/A

Appendix B

PHOTOGRAPHS

Table 2 - Dormouse Evidence

Photo Number	Photo Description	Photo
1	*Dormouse nest with woven chamber*	
2	*Dormouse nest with woven chamber and brown leaves*	
3	*Dormouse nest with brown leaves*	

Photo Number	Photo Description	Photo
4	*Dormouse nest with bird feathers, clematis and peeled bark*	
5	*Dormouse nest with peeled bark*	
6	*Adult dormouse*	

Photo Number	Photo Description	Photo
7	*Tube 110 with peeled bark dormouse nest*	
8	*Tube 3 with dormouse exiting the tube.*	

Appendix C

INDICATIVE SPECIES FOR COMPENSATORY PLANTING

Table 3 - Indicative Species List of species suitable for dormice

COMMON NAME	LATIN NAME
Field maple	*Acer campestre*
Sycamore	*Acer pseudoplatanus*
Birch	*Betula pendula*
Hornbeam	*Carpinus betulus*
Sweet chestnut	*Castanea sativa*
Dogwood	*Cornus sanguinea*
Hazel	*Corylus avellana*
Hawthorn	*Crataegus monogyna*
Broom	*Cytisus scoparius*
Spindle	*Euonymus europaeus*
Holly	*Ilex aquifolium*
Wild privet	*Ligustrum vulgare*
Honeysuckle	*Lonicera pericyclemum*
Domestic apple	*Malus domestica*
Crab apple	*Malus sylvestris*
Wild cherry	*Prunus avium*
Bird cherry	*Prunus padus*
Blackthorn	*Prunus spinosa*
Pedunculate oak	*Quercus robur*
Field rose	*Rosa arvensis*
Dog rose	*Rosa canina*
Bramble	*Rubus fruticosus*
Goat willow	*Salix caprea*
Grey willow	*Salix cinerea*
Wayfaring tree	*Viburnum lantana*