Hampshire Water Transfer and Water Recycling Project

Environmental Statement – Appendix 8.6 Hazel Dormouse

VOLUME NUMBER: 6

PLANNING INSPECTORATE SCHEME NUMBER: WA010002

APPLICATION DOCUMENT REFERENCE: 6.2

APFP REGULATION: 5(2)(a)

May 2026

Version 0

from Southern Water

Contents

1 Introduction 1
1.1 Overview 1
1.2 Objectives 2
1.3 Hazel dormouse ecology 2
1.4 Legal and policy context 2
2 Methodology 4
2.1 Background 4
2.2 Survey guidance 4
2.3 Zone of Influence 4
2.4 Desk study 6
2.5 Field survey 6
2.6 Limitations and assumptions 7
3 Results 10
3.1 Desk study 10
3.2 Field surveys 11
4 Summary 20
Annex A Detailed results – habitat assessments 21
Annex B Detailed results – field survey results 29
References 36

Tables

Table 2-1 Hazel dormouse Zone of Influence, desk study area and field survey area 5
Table 2-2 Index of probability of finding hazel dormice present in nest tubes in any one month [1] .. 7
Table 3-1 Hazel dormouse results summary 12
Table A-1 Habitat assessments 21
Table B-1 Results of hazel dormouse field surveys undertaken for the Proposed Development 29

1 Introduction

1.1 Overview

1.1.1 This technical report has been prepared by Southern Water Services Limited (the Applicant) in relation to the Hampshire Water Transfer and Water Recycling Project (hereafter referred to as 'the Proposed Development'). A detailed description of the Proposed Development can be found in Environmental Statement (ES) Chapter 3 Description of the Proposed Development, Volume I (Document reference 6.1, DCO Volume 6) and have informed the scope of this study. The Application Glossary (Document reference 1.7, DCO Volume 1) sets out the abbreviations and definitions used in the DCO application for the Proposed Development.

1.1.2 The Proposed Development comprises the construction, operation and maintenance of the following components:

1. Water Recycling Plant (WRP) site and associated pumping stations.
2. Pipelines between Budds Farm Wastewater Treatment Works (WTW) and the WRP site.
3. Pipelines between the WRP site and Bedhampton Springs, connecting to pipelines being delivered by Portsmouth Water between Bedhampton Springs and Havant Thicket Reservoir.
4. Pipeline between the WRP site and Otterbourne Water Supply Works (WSW).
5. Above Ground Plant (AGP) comprising Intermediate Pumping Stations (IPS) and Break Pressure Tanks (BPT) located along the Pipeline between the WRP site and Otterbourne WSW.

1.1.3 The Proposed Development would also comprise the use of the following infrastructure:

1. Havant Thicket Reservoir (which has been consented separately by Portsmouth Water and is currently under construction) for the storage of recycled water.
2. The existing Eastney Long Sea Outfall (LSO), Eastney Pumping Station, and associated Eastney Transfer Tunnel (TT) for the release of reject water from the WRP.
3. Pipelines and other related works (which have been consented separately by Portsmouth Water) for the transfer of recycled water and source water between Bedhampton Springs and Havant Thicket Reservoir.

1.1.4 The construction and operation of the Proposed Development would be supported by other temporary and permanent works and will require the demolition, disassembly and/or temporary relocation of a number of small structures.

1.1.5 This report details baseline data for hazel dormouse *Muscardinus avellanarius* and is one of nine technical reports produced to inform the ecological assessment presented within ES Chapter 8 Terrestrial and freshwater biodiversity, Volume I (Document reference 6.1, DCO Volume 6). The survey scoping and methodology

used for establishing the ecological baseline for hazel dormouse are provided in section 2.4 and section 2.5 respectively of this report.

1.2 Objectives

1.2.1 To inform the assessment of likely significant effects on hazel dormouse the following objectives were set:

1. Undertake a desk study to identify any records of hazel dormouse within 2km of the Order Limits from the last ten years.
2. Undertake surveys to confirm presence or likely absence of hazel dormouse within suitable habitat in the field survey area through identification of field signs.
3. Highlight and map areas of key importance to hazel dormouse within the field survey area.

1.3 Hazel dormouse ecology

1.3.1 The hazel dormouse is a nocturnal rodent that occurs in a variety of native habitats including woodland, scrub and hedgerows [1] and is generally active from April to November when it is an almost exclusively arboreal species. During the winter hazel dormice descend to the ground to hibernate; once in hibernation, they rarely leave the nest until the following spring.

1.3.2 Hazel dormice feed on the berries, flowers and nuts of native trees and shrubs. Insects are also a component of their diet, particularly in summer. Diversity of native tree and shrub species is important to this species to ensure food is available throughout the active season.

1.3.3 The hazel dormouse constructs nests in trees and shrubs; nests are typically spherical, grapefruit-sized and woven from grass, leaves and other materials, such as bark. Females may produce a litter (usually of four or five young) at any point during the active season, but the majority are born in July and August.

1.4 Legal and policy context

1.4.1 In England hazel dormouse is listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations) [2] and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) [3].

1.4.2 Under the Conservation of Habitats and Species Regulations 2017 (as amended) it is an offence to:

1. Deliberately kill, injure, disturb or capture hazel dormice.
2. Damage or destroy hazel dormouse breeding sites and resting places (including when hazel dormice are not present).
3. Possess, control or transport hazel dormice (or any part, alive or dead).
4. Sell, exchange or offer for sale or exchange hazel dormice.

1.4.3 Under the Wildlife and Countryside Act 1981 (as amended), it is an offence to:

1. Intentionally or recklessly disturb hazel dormice while they occupy a structure or place used for shelter or protection.

2. Intentionally or recklessly obstruct access to a place used for shelter or protection.
3. Sell, offer or expose for sale or possess or transport for the purpose of sale hazel dormice (or any part, alive or dead).
4. Sell, offer or publish an advert to sell hazel dormice.

1.4.4 The Natural Environment and Rural Communities (NERC) Act 2006 [4] places a duty to conserve and enhance biodiversity on public authorities in England. This requires a public authority (including the Secretary of State) that has functions exercisable in relation to England to consider what action it can properly take to further the general biodiversity objective, namely the conservation and enhancement of biodiversity through the exercise of its functions. The Act also places a duty on the Secretary of State to maintain lists of species (Section 41 species) which are regarded as being of principal importance for both the conservation and enhancement of biodiversity in England. This list includes hazel dormouse.

European protected species licences

1.4.5 Although the law provides strict protection to hazel dormice, it also allows this protection to be set aside (derogated) under Regulation 55 of the Habitats Regulations through the issuing of European Protected Species (EPS) mitigation licences for the purpose of preserving public health, public safety, other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment.

1.4.6 In accordance with the requirements of the Habitats Regulations a licence can only be issued where the following requirements are met:

1. There is no satisfactory alternative.
2. 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.

1.4.7 In England, EPS mitigation licences applications are determined by Natural England (NE).

Local policy

1.4.8 Hazel dormouse is referenced specifically in local policy. East Hampshire District Council (EHDC) Biodiversity and Planning Guidance [5] states that hazel dormouse is considered to be present within suitable habitat across the entire district. Fareham Local Biodiversity Action Plan Review [6], lists hazel dormouse as a Priority Woodland Species, Havant Borough Biodiversity Strategy [7] list hazel dormouse as a Priority Species and Winchester County Council Biodiversity Action Plan [8] lists hazel dormouse as a Key Species present within the district.

2 Methodology

2.1 Background

2.1.1 This section describes the desk study and field survey methodology used to establish the ecological baseline for hazel dormouse. It has been designed to identify the distribution of hazel dormouse populations within the study area.

2.1.2 The purpose of the hazel dormouse surveys is to facilitate the application of the mitigation hierarchy in the design and assessment process to avoid, where possible, likely significant effects to the species. This would ensure that any populations with the potential to be affected by the Proposed Development would be maintained at a favourable conservation status.

2.2 Survey guidance

2.2.1 The following survey guidance has been considered in the methodology design:

1. Hazel dormice: advice for making planning decisions [9]
2. The Dormouse Conservation Handbook [1]
3. Chartered Institute of Ecology and Environmental Management (2013) Competencies for Species Survey: Hazel Dormouse [10]

2.3 Zone of Influence

2.3.1 The geographical scope of the assessment has been informed by:

1. The Order Limits which include temporary land take for temporary construction compounds, as shown on ES Figure 1.1 Location of the Proposed Development and Order Limits, Volume III (Document reference 6.3, DCO Volume 6), access routes and lay down sites.
2. The likely significant effects of the Proposed Development on ecological features within the 'Zone of Influence' (ZoI).

2.3.2 The ZoI is the area over which ecological features may receive impacts from a development. It covers the Order Limits and the wider landscape where pathways exist for the transfer of impacts away from the works area. The ZoI for each ecological feature varies in size depending on the nature of the effects and the sensitivity of the ecological features to those effects.

2.3.3 Each ZoI has been determined by:

1. Consideration of the activities during construction and operation associated with the Proposed Development.
2. The scale, duration and timing of the works.
3. Ecological data, including aerial photography and Ordnance Survey (OS) mapping, biological records of protected and notable species and baseline data collected from field surveys.

2.3.4 Based on the scale and duration of the Proposed Development it is considered that construction activities within the Order Limits would typically produce temporary and localised impacts.

2.3.5 The ZoI, desk study area and field survey area for hazel dormouse are detailed within Table 2-1.

Table 2-1 Hazel dormouse Zone of Influence, desk study area and field survey area

Ecological Feature	ZoI	Desk study area	Field survey area
Hazel dormouse	Suitable habitat within Order Limits plus 500m	Order Limits plus 2km	Order Limits plus intersecting and connected habitat suitable for hazel dormouse

2.3.6 The extensive networks of hedgerows, scrub and woodland present within and connected to the Order Limits provide suitable opportunities for nesting, foraging and dispersing hazel dormouse across the Proposed Development.

2.3.7 The ZoI for hazel dormouse is suitable connecting habitat that intersects with and extends up to 500m from the Order Limits. This is to account for potential impacts to dispersing hazel dormouse. Dispersing juveniles have been recorded travelling over 350m from natal sites [11] and hazel dormice may occasionally disperse up to 500m in some landscapes [12] [13].

2.3.8 The desk study area is 2km from the Order Limits. It encompasses the ZoI for hazel dormouse and provides contextual information for presence of populations across the wider landscape that may be connected by suitable habitat to the Proposed Development.

2.3.9 The field survey area applied for hazel dormouse is suitable habitat that intersects and connects with the Order Limits. In line with the standard guidance described section 2.2, the field survey area is focussed on those areas in which works associated with the Proposed Development may result in contravention of the legislation protecting hazel dormouse including land required for construction of the Proposed Development and connecting habitat. The location of suitable habitat in relation to the Order Limits is not consistent across the Proposed Development, therefore the field survey area allows for flexibility in selection of the most suitable connected habitat. The field survey area has been divided into discrete sites. Each site is defined by a network of well-connected habitat.

2.3.10 The Proposed Development includes the use of Havant Thicket Reservoir for the storage of recycled water, the use of the Eastney LSO, Eastney PS, and associated Eastney TT for the release of reject water from the WRP site. The Proposed Development also uses pipelines that have been consented and are to be constructed separately by Portsmouth Water between Bedhampton Springs and Havant Thicket Reservoir. These components are considered as part of the future baseline and are, therefore, considered to be existing infrastructure. As such, the terrestrial and freshwater biodiversity assessment only considers the operational change of use.

2.4 Desk study

Desk-based scoping

2.4.1 Initial scoping was carried out to assess habitats for their potential suitability to support hazel dormouse across the Order Limits. This exercise was conducted using a combination of aerial imagery, OS maps and Geographic Information Systems. The assessment considered the suitability of habitat for hazel dormouse nest creation, hibernation, foraging and providing corridors for dispersal.

Data search

2.4.2 A search for existing records of hazel dormouse was undertaken in July 2025 within the desk study area from Hampshire Biodiversity Information Centre (HBIC) for the period 2014 to 2024. Records were returned as a grid reference with accuracy up to eight figures. Records returned within the desk study area were considered relevant to the assessment where their locations were connected by suitable habitat to sites scoped in for field surveys.

2.4.3 Multi Agency Government Information for the Countryside (MAGIC) map application was used to search for granted hazel dormouse EPS mitigation licences within the desk study area. The search was carried out in July 2025 for the period 2015 to 2025.

Other planning applications

2.4.4 Survey data has been accessed from other planning applications for developments that may result in impacts to the same dormouse populations as the Proposed Development. Results from associated reports have been considered in section 3.2. These developments comprise:

1. Portsmouth Water Havant Thicket Reservoir [14]
2. Portsmouth Water Farlington to Nelson Pipeline [15]
3. Southern Water Southampton Link Main [16]

2.5 Field survey

2.5.1 Surveys for hazel dormouse have been undertaken, starting in April 2022 and were completed in November 2024 with surveys undertaken in the active season for hazel dormouse (April to November inclusive). Table B-1 sets out the months in which surveys were undertaken for each site.

2.5.2 Each site requiring additional surveys for hazel dormouse has been subject to a high-level habitat assessment, these are presented in Table A-1. The habitat assessment describes the types of habitat, species of trees and shrubs present, and connectivity to the wider landscape.

2.5.3 Hazel dormouse field surveys have been developed in accordance with good practice methods set out in The Dormouse Conservation Handbook [1]. A minimum of 50 nest tubes were deployed at each discrete site requiring field surveys for hazel dormouse. Nest tubes were deployed approximately 15m to 20m apart, sampling areas of high-quality habitat (where access allowed), including woodland understory, scrub and hedgerows with connectivity. Nest tubes were

checked monthly (where access allowed), within the hazel dormouse active season (April to November inclusive) for evidence of hazel dormouse. Checks were undertaken by ecologists with a licence from NE to 'take and disturb' hazel dormouse or by an ecologist under the direction of the licensed ecologist.

2.5.4 The Dormouse Conservation Handbook [1] sets out an index of probability for finding hazel dormice for each month outside of the hazel dormouse hibernation season, the index is detailed in Table 2-2. The index of probability is used to calculate the necessary survey effort to make a robust conclusion of presence or likely absence of hazel dormouse at each site. Likely absence can only be assumed when a total index of probability score of at least 20 has been achieved. At sites where conclusive evidence of hazel dormouse has been identified and presence established; surveys were discontinued to reduce risk of disturbance. At sites where 75 or 100 nest tubes were deployed, the number of points achieved each month was increased proportionally. Where possible, a full continuous season (April to November inclusive) was surveyed.

Table 2-2 Index of probability of finding hazel dormice present in nest tubes in any one month [1]

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

2.6 Limitations and assumptions

2.6.1 An absence of desk study records for a species does not necessarily indicate a lack of ecological interest; the area may simply be under-recorded. This is not considered a significant limitation as this assessment is not relying on location data provided by records.

2.6.2 Field surveys were initially undertaken in suitable habitat within and connected to the wider Scoping Area, refer to ES Chapter 8 Terrestrial and freshwater biodiversity, Volume I (Document reference 6.1, DCO Volume 6) and ES Appendix 5.1 EIA Scoping Report, Volume II (Document reference 6.2, DCO Volume 6) before it was refined to the Order Limits. As a result, sites 5, 7, 9, 11, 14 and 19 had nest tubes deployed outside of the ZoI (determined in relation to the Order Limits). To account for this, additional nest tubes were deployed in 2024 within habitats closer to the Order Limits at sites 9 and 11 to ensure habitats in these areas were subject to a robust survey effort. Additional nest tubes were not considered necessary for sites 5, 14 and 19 due to positive evidence of hazel dormouse identified within habitat connected to the ZoI. It was necessary to set up nest tubes outside the ZoI for site 7 due to access constraints. However, highly

suitable ancient woodland habitat with good connectivity to the Order Limits was surveyed; connectivity is provided via a hedgerow containing mature trees along the B2177 corridor. A total of 100 nest tubes were deployed here to increase survey effort at this location and therefore the survey effort is considered reliable.

2.6.3 Access issues throughout 2022 and 2023 prevented surveys of site 4 (located at the WRP site) from being completed and therefore nest tubes were redeployed in 2024. However, surveys undertaken in 2024 were also unable to achieve the required 20 points due to health and safety issues. A total of 12 points were achieved across 2022 and 2023, and a total of 18 points were achieved in 2024 with no evidence recorded. Additionally, hazel dormouse field surveys were undertaken for the previous developer by Applied Ecology Ltd in 2020 [17] at the WRP site and no evidence of hazel dormouse was recorded with a total of 24 points achieved. Taking into consideration these combined survey results as well as the suboptimal habitat present and lack of habitat connectivity to the wider landscape, it is concluded that there is likely absence of hazel dormouse at this site and a robust assessment was achieved.

2.6.4 Surveys were undertaken at Havant Thicket Reservoir by Portsmouth Water as part of the planning application for the reservoir development. A report was issued in 2019 that confirms hazel dormouse presence at this location [14]. Additionally, there is a granted EPS mitigation licences in place for hazel dormouse for this planning application. Therefore, presence of hazel dormouse is confirmed within this site. As the area is existing infrastructure, habitats within site 1 are not considered as part of this assessment.

2.6.5 Although every effort was made to ensure nest tubes were deployed in suitable locations, occasionally they were lost to overgrown vegetation or destroyed by farm machinery at sites 2, 4, 8 and 19. Lost nest tubes were redeployed in appropriate locations at these sites. Where all deployed nest tubes could not be checked (either due to land access constraints or where nest tubes were lost to overgrown vegetation), full points were not counted for that survey. Half points were counted where a minimum of 25 nest tubes were checked, in line with good practice guidance [1].

2.6.6 In some instances, over 50 nest tubes were deployed to increase survey effort. Partial points were counted in increments of 25 nest tubes. For example, 75 nest tubes would result in 1.5x the number of points and 100 nest tubes would result in double the number of points counted per survey. Full details of points awarded for each site are set out in Annex B, Table B-1.

2.6.7 An assumption of likely presence of hazel dormouse has been made at sites that did not identify evidence of hazel dormouse during field surveys with 20 points achieved according to the index of probability. This comprises sites 13, 16, 17, 18, 24, 25 and 27. These assumptions are based on evidence identified during field surveys for adjacent sites, connectivity between these sites, evidence accessed from data searches and an assessment of the likelihood that dormice move between the sites [18]. Many of the dividing features between sites, such as minor roads, have canopy connections and are not necessarily barriers to dispersal. It is therefore assumed that hazel dormouse populations are likely to be present in lower densities in suitable habitat at the sites listed within this section and use these habitats for dispersal across the landscape. All of these sites are located

within the vicinity of the Pipeline between the WRP site and Otterbourne WSW component.

3 Results

3.1 Desk study

Desk-based scoping

3.1.1 The desk-based scoping exercise identified habitats throughout the Order Limits with the potential to support hazel dormouse. The majority of land within the ZoI is agricultural, with frequent pockets of ancient woodland and hedgerow networks providing suitable habitat for nesting, foraging and hibernating hazel dormouse as well as opportunities for dispersal. There is some rural development present within and adjacent to the majority of the Proposed Development which may reduce connectivity but does not prevent dispersal across the landscape. The exceptions are the WRP site and Budds Farm WTW, these areas have a high level of development with limited suitable habitat and connectivity.

3.1.2 Areas scoped in for surveys include hedgerows, scrub and woodland that intersect with and are connected to the Proposed Development. Areas scoped out of additional survey requirements include urban and developed areas and areas subject to tunnelling or trenchless crossings (with the exception of associated temporary construction compounds), due to a lack of impact pathways. The suitable habitats have been divided into discrete 'sites', defined as networks of well-connected habitat suitable for hazel dormouse separated by dividing features such as roads. The dividing features were selected to facilitate field survey design but are not necessarily considered barriers to dispersal. Desk-based scoping identified a total of 28 sites containing habitat suitable for hazel dormouse. The sites and nest tube deployment locations are shown in ES Figure 8.43 Hazel dormouse survey areas, Volume III (Document reference 6.3, DCO Volume 6).

Data search

3.1.3 The desk study returned 52 records of hazel dormouse within the desk study area, excluding existing infrastructure, from the period 2014 to 2024. The majority of records were returned as a grid reference with accuracy up from four to eight figures. This includes records connected via suitable habitat to sites 5, 6, 11, 13, 15 and 29. The data search results support the assumption of likely presence at site 13. The desk study results are presented in ES Figure 8.44 Hazel dormouse local record data within the desk study area, Volume III (Document reference 6.3, DCO Volume 6).

3.1.4 A total of 19 granted EPS mitigation licences for hazel dormouse were identified within the desk study area, excluding existing infrastructure. This includes licences issued in areas connected via suitable habitat to sites 5, 6 and 14.

Other planning applications evidence

3.1.5 Evidence of hazel dormouse presence has been confirmed via field surveys undertaken for other proposed developments with habitat connected to the Order Limits.

3.1.6 Portsmouth Water Havant Thicket Reservoir development identified hazel dormouse during field surveys and a report issued in 2019 confirms presence at

this location [14] (site 1). Additionally, there is a granted EPS mitigation licence in place for hazel dormouse for this project. As the area is existing infrastructure, habitats within site 1 are not considered as part of this assessment.

3.1.7 Surveys undertaken in 2024 for Portsmouth Water as part of the Farlington to Nelson Pipeline project identified probable hazel dormouse nests within hedgerows connected to these sites [15]. It is therefore considered that hazel dormouse is present at sites 7 and 8 and likely to also be present at sites 9 and 10 which are connected via suitable habitats to site 8. These sites are located within the WRP site to Otterbourne WSW component, Section E: Portsdown Hill to Boarhunt.

3.1.8 Positive field signs were recorded in habitat connected to site 29 by the Applicant in 2022 as part of the Southampton Link Main Project [16]. Surveys were undertaken in Sparrowgrove Copse, a woodland adjacent to the Otterbourne WSW which is connected via suitable habitat along the western railway boundary to habitat intersected by the Proposed Development at Otterbourne. Two juvenile hazel dormice were recorded at this location in October 2022. This is supported by the presence of a desk study record within this site. It is therefore considered that hazel dormouse is present in suitable habitat within and connected to site 29. These sites are located within the WRP site to Otterbourne WSW component, Section M: Portsdown Hill to Boarhunt.

3.2 Field surveys

3.2.1 Following field surveys undertaken for the Proposed Development, positive field signs for hazel dormouse were recorded at a total of 13 sites. These were sites 5, 6, 11, 12, 14, 15, 19, 20, 21, 22, 23, 26 and 28. All of these sites are located within the Pipeline between the WRP site and Otterbourne WSW.

3.2.2 Field signs of hazel dormouse identified during field surveys comprise:

1. Twenty hazel dormouse nests
2. Four adult hazel dormice
3. Two juvenile hazel dormice

3.2.3 Likely absence of hazel dormouse has been assumed at sites 2, 3, and 4 as no field signs for hazel dormouse were recorded during field surveys. Additionally, habitats at these sites are sub-optimal, these sites are adjacent to areas of urban development and there is poor habitat connectivity to the wider landscape. Sites 9, 10, 13, 16, 17, 18, 24, 25 and 27 are considered to have likely presence of hazel dormouse.

3.2.4 A summary of presence and likely absence of hazel dormouse is provided in Table 3-1. Detailed results of the field surveys undertaken for the Proposed Development are described in Annex B, Table B-1 and presented in ES Figure 8.43 Hazel dormouse survey areas, Volume III (Document reference 6.3, DCO Volume 6); sites are ordered east to west across the Proposed Development.

Table 3-1 Hazel dormouse results summary

Site	Habitat summary	Results	Likely presence justification	Proposed Development component and habitat presence within Order Limits
2	Arable fields with bramble scrub, connectivity limited by urban development and river.	Likely absent	-	Pipelines between the WRP site and Bedhampton Springs. Hazel dormouse is likely absent from this site.
3	Some woodland and scrub within this site but connectivity limited by urban development and coast.	Likely absent	-	Pipelines between Budds Farm WTW and the WRP site. Hazel dormouse is likely absent from this site.
4	Woodland and mixed scrub present within boundaries of this site but connectivity limited by urban development and coast.	Likely absent	-	WRP site Hazel dormouse is likely absent from this site.
5	Network of hedgerows connected to ancient woodland. Connectivity present to west and north but limited to east and south.	Present	-	Pipeline between the WRP site and Otterbourne WSW, and AGP. Habitat presence within the Order Limits: • One temporary construction compound for tunnelling and AGP (BPT/IPS E) to be located adjacent to suitable habitat. • Two temporary construction compound access points within suitable habitat. • Two open-cut hedgerow crossings within suitable habitat.
6	Network of hedgerows connected to ancient woodland. Connectivity present to west and north but limited to east and south.	Present	-	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • One temporary construction compound to be located adjacent to suitable habitat. • One temporary construction compound access point within suitable habitat. • Four open-cut hedgerow crossings within suitable habitat.

Site	Habitat summary	Results	Likely presence justification	Proposed Development component and habitat presence within Order Limits
7	Network of hedgerows, treelines connected to large ancient woodland to the north.	Present	-	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • One temporary construction compound to be located adjacent to suitable habitat. • One open-cut hedgerow crossing within suitable habitat.
8	Hedgerows bordering arable fields with limited woodland.	Present	-	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • One temporary construction compound to be located adjacent to suitable habitat. • One open-cut hedgerow crossing within suitable habitat.
9	Ancient woodlands present to the north of this site with some limited connectivity to habitats within the Order Limits.	Likely present	Habitat connectivity to sites 7 and 8 with confirmed hazel dormouse presence.	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • Pipeline between the WRP site and Otterbourne WSW. • One open-cut hedgerow crossing within suitable habitat.
10	Hedgerows and woodland bordering arable fields connected to ancient woodlands.	Likely present	Habitat connectivity to sites 7 and 8 with confirmed hazel dormouse presence.	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • Two temporary construction compounds to be located adjacent to suitable habitat. • Two open-cut hedgerow crossings within suitable habitat.
11	Arable farmland bordered by hedgerows and woodland well-connected to large areas of ancient woodland.	Present	-	Pipeline between the WRP site and Otterbourne WSW, and AGP. Habitat presence within the Order Limits: • Two temporary construction compounds (one for a trenchless crossing, one for AGP) and one AGP (IPS F) to be located adjacent to suitable habitat. • Five open-cut hedgerow crossings within suitable habitat.

Site	Habitat summary	Results	Likely presence justification	Proposed Development component and habitat presence within Order Limits
12	Arable farmland bordered by hedgerows and connected to a small ancient woodland.	Present	-	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • One temporary construction compound for a trenchless crossing to be located adjacent to suitable habitat. • Two access points within suitable habitat. • Five open-cut hedgerow crossings within suitable habitat.
13	Network of hedgerows connected to ancient woodlands.	Likely present	Habitat connectivity to sites 12 and 14 with confirmed hazel dormouse presence and desk study record within ancient woodland.	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • Two temporary construction compounds for trenchless crossings to be located adjacent to suitable habitat. • Two access points within suitable habitat. • Two open-cut hedgerow crossings within suitable habitat.
14	Network of hedgerows, treelines and areas of deciduous and wet woodland along the River Meon corridor.	Present	-	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • Two temporary construction compounds for trenchless crossings to be located adjacent to suitable habitat. • One open-cut hedgerow crossing within suitable habitat.
15	Woodland and hedgerows bordering arable fields and grassland connected to multiple small ancient woodlands.	Present	-	Pipeline between the WRP site and Otterbourne WSW, and AGP. Habitat presence within the Order Limits: • Four temporary construction compounds (three for trenchless crossings) to be located adjacent to suitable habitat. • One AGP (IPS G) and associated compound to be located adjacent to suitable habitat. • One temporary construction compound access point within suitable habitat. • Four open-cut hedgerow crossings within suitable habitat.

Site	Habitat summary	Results	Likely presence justification	Proposed Development component and habitat presence within Order Limits
16	Hedgerows bordering arable fields connected to ancient woodland, which is partly coniferous.	Likely present	Habitat connectivity to site 15 with confirmed hazel dormouse presence.	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • One temporary construction compound for a trenchless crossing to be located adjacent to suitable habitat. • Six open-cut hedgerow crossings within suitable habitat.
17	Lowland mixed deciduous woodland and connecting hedgerows.	Likely present	Habitat connectivity to site 15 with confirmed hazel dormouse presence.	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • Two temporary construction compounds for a trenchless crossing to be located adjacent to suitable habitat. • One temporary construction compound access point within suitable habitat. • One open-cut hedgerow crossing within suitable habitat.
18	Hedgerows and small areas of lowland mixed deciduous woodlands including ancient woodland.	Likely present	Habitat connectivity to site19 with confirmed hazel dormouse presence.	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • One temporary construction compound for a trenchless crossing to be located adjacent to suitable habitat. • One temporary construction compound access point within suitable habitat. • Ten open-cut hedgerow crossings within suitable habitat.
19	Small network of hedgerows and scrub bordering arable fields and a small area of broadleaved woodland.	Present	-	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • One temporary construction compound to be located adjacent to suitable habitat. • Three open-cut hedgerow crossings within suitable habitat.

Site	Habitat summary	Results	Likely presence justification	Proposed Development component and habitat presence within Order Limits
20	Small network of hedgerows and lowland mixed deciduous woodland surrounding agricultural land.	Present	-	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • One temporary construction compound for a trenchless crossing to be located adjacent to suitable habitat. • Two open-cut hedgerow crossings within suitable habitat.
21	Broadleaved mixed and yew woodland, treelines and hedgerows. Connected to Ancient Woodland.	Present	-	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • Two temporary construction compounds to be located adjacent to suitable habitat. • Two temporary construction compounds for trenchless crossings to be located adjacent to suitable habitat. • Eight open-cut hedgerow crossings within suitable habitat.
22	Network of hedgerows, treelines and areas of lowland mixed deciduous woodland surround farmland and parkland.	Present	-	Pipeline between the WRP site and Otterbourne WSW, and AGP. Habitat presence within the Order Limits: • One temporary construction compound for a trenchless crossing to be located adjacent to suitable habitat. • One AGP (BPT-K and associated temporary construction compound) to be located adjacent to suitable habitat. • One AGP access point within suitable habitat. • Eleven open-cut hedgerow crossings within suitable habitat.
23	Network of connected hedgerows and woodland that border modified grassland fields. Connectivity limited by roads to the north.	Present	-	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • Six open-cut hedgerow crossings within suitable habitat.

Site	Habitat summary	Results	Likely presence justification	Proposed Development component and habitat presence within Order Limits
24	Network of connected hedgerows and woodland that border modified grassland fields.	Likely present	Habitat connectivity to site 23 with confirmed hazel dormouse presence.	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • One temporary construction compound to be located adjacent to suitable habitat. • One temporary construction compound access point within suitable habitat. • Six open-cut hedgerow crossings within suitable habitat.
25	Network of connected hedgerows and woodland including ancient woodland.	Likely present	Habitat connectivity to site 26 with confirmed hazel dormouse presence.	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • Three temporary construction compounds for trenchless crossings to be located adjacent to suitable habitat. • One temporary construction compound to be located adjacent to suitable habitat. • One temporary construction compound access point within suitable habitat. • Twelve open-cut hedgerow crossings within suitable habitat.
26	Network of hedgerows and areas of lowland mixed deciduous woodland. Connected to Stoke Park Ancient Woodland.	Present	-	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • Three temporary construction compounds for trenchless crossings to be located adjacent to suitable habitat. • Seven open-cut hedgerow crossings within suitable habitat.
27	Hedgerow and pockets of woodland, including broadleaved and wet woodlands. Connected to small areas of ancient woodland.	Likely present	Habitat connectivity to sites 26 and 28 with confirmed hazel dormouse presence.	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • One temporary construction compound for tunnelling to be located adjacent to suitable habitat. • One temporary construction compound for a trenchless crossing to be located adjacent to suitable habitat. • Two open-cut hedgerow crossings within suitable habitat.

Site	Habitat summary	Results	Likely presence justification	Proposed Development component and habitat presence within Order Limits
28	Network of hawthorn and bramble hedgerows and broadleaved woodland.	Present	-	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • Suitable habitat adjacent to the trenchless temporary construction compound in site 27. • Majority of site is located above River Itchen tunnel.
29	Ancient woodland and hedgerows, connectivity limited by M3 motorway and railway.	Present	-	Pipeline between the WRP site and Otterbourne WSW. Habitat presence within the Order Limits: • One temporary construction compound for tunnelling to be located adjacent to suitable habitat. • Two temporary construction compounds for trenchless crossings to be located adjacent to suitable habitat. • Five open-cut hedgerow crossings within suitable habitat.

3.2.5 A total of 25 sites have confirmed or likely presence of hazel dormouse and three sites are assumed to have likely absence of hazel dormouse. Hazel dormouse presence has been confirmed within the following Proposed Development components:

1. Pipeline between the WRP site and Otterbourne WSW
2. Above Ground Plant

3.2.6 Hazel dormouse is considered likely absent within the following components of the Proposed Development:

1. Water Recycling Plant site
2. Pipelines between the WRP site and Bedhampton Springs
3. Pipelines between Budds Farm WTW and the WRP site

4 Summary

4.1.1 The extensive network of hedgerows, scrub and woodland present within and connected to the Order Limits provides suitable opportunities for nesting, foraging and dispersing hazel dormouse across the Proposed Development.

4.1.2 Field surveys recorded evidence of hazel dormouse at 13 sites. Out of the 28 sites selected for field surveys, hazel dormouse is considered present or likely present at 25 sites and likely absent at three sites.

Annex A Detailed results – habitat assessments

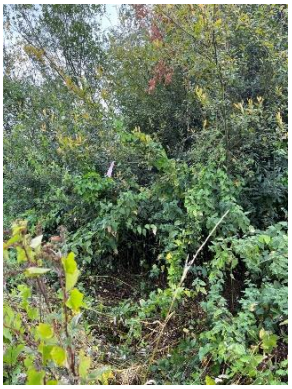
Table A-1 Habitat assessments

Site ID	Habitat description	Photo
2	A small area of arable fields with abundant bramble scrub and blackthorn *Prunus spinosa* around the border. A small quantity of woodland is present with occasional hazel *Coryllus avellana* and conifer species noted. Overall habitats are suboptimal for hazel dormouse as connectivity to the wider landscape limited by motorways, railways and proximity of urban areas.	
3	Habitat in and around Budds Farm WTW. An abundance of dense scrub is present within this site, species include elder *Sambucus nigra*, bramble and hawthorn. There is also an outer perimeter of broadleaved woodland. Connectivity to the wider landscape is reduced by a motorway to the north, proximity of urban development and waterbodies.	
4	Woodland and mixed scrub bordering grassland areas dominated by ruderals and open mosaic habitats on previously developed land. Species present include blackthorn, hawthorn, bramble and oak. The site is bound by roads and the coast and is therefore isolated from the wider landscape, although habitat connectivity may be present adjacent to motorway corridors.	
5	A network of hedgerows surrounding arable fields and grassland is present at this location. Site includes areas of woodland to the north of the Order Limits including ancient woodland (Sandy Coppice). Connectivity to the wider landscape is noted including presence of additional ancient woodland to the north and west (Marrlesmoor Coppice). However, the site is adjacent to urban areas to the east and south. Species present include hazel, blackthorn, holly *Ilex aquifolium*, oak, bramble and hawthorn. The desk study identified a record of hazel dormouse in Potwell Coppice, which is habitat connected to this site.	

Site ID	Habitat description	Photo
6	A network of hedgerows surrounding grassland and arable and grassland areas. Also noted is an area of hawthorn and bramble scrub to the west of this site. Opportunities for dispersal are present as there is a similar connectivity level to the wider landscape as site 5. Species present include hazel, blackthorn, holly, oak, bramble and hawthorn. The desk study identified a record of hazel dormouse in Potwell Coppice, which is habitat connected to this site.	
7	A network of hedgerows surrounding arable and pasture fields. A large ancient woodland (Pinsley and Millers Coppices) is connected to the Order Limits via hedgerows to the north of the site. Present within the woodland is a mature oak and ash *Fraxinus excelsior* canopy, a frequent hazel understory and a shrub layer comprising holly, field maple *Acer campestre* and blackthorn. There is a good level of connectivity to the north of the site, but connectivity is limited by urban development to the south.	
8	Hedgerows bordering arable fields; species present include blackthorn, bramble and hawthorn. An area of broadleaved woodland dominated by oak and willow *Salix* spp. is present within this site. A main road is adjacent to this site which, although not providing a barrier to dispersal, reduces connectivity to the north and east. Urban development is present further south and hedgerows to the west are generally less developed and gappy. Overall habitats within the Order Limits at this site have a low to moderate connectivity to the wider landscape.	
9	Two deciduous woodlands (Stroud Coppice and Ashleydown Coppice ancient, replanted woodlands) are present to the north of the Order Limits at this site. Woodland canopy primarily comprises ash and oak, with hazel, field maple, hawthorn, bramble and blackthorn present in the understory. There are also hedgerows bordering arable fields present within the Order Limits. Connectivity of the ancient woodland to habitats within the Order Limits is limited as some field margins do not have hedgerows or hedgerows have recently been planted and are not fully developed. Hedgerows, where present, are gappy in some locations within this site. To the south there is a high level of urban development. However, the M27 habitat corridors may provide opportunities for dispersal across the wider area.	

Site ID	Habitat description	Photo
10	Lowland mixed deciduous woodlands (Grub/Mill Coppices and Moor Coppices ancient, replanted woodland) are present to the north of the Order Limits at this site. There are also hedgerows and woodland bordering arable fields connecting these ancient woodlands to habitat within the Order Limits. Species present in the woodland includes hawthorn, field maple, oak, elder, hazel coppice, elm and bramble. To the south there is a high level of urban development. However, the M27 habitat corridors may provide opportunities for dispersal across the wider area.	
11	Habitats within the Order Limits at this site consist primarily of arable farmland bordered by hedgerows and some woodland. These habitats are very well connected to large areas of ancient woodland; Pigeonhouse Coppice and Carpenters Coppice ancient woodlands are present within the north of this site. Woodland species present includes hazel, blackthorn and holly with bramble and hawthorn along the woodland edge and dense scrub throughout. The canopy consists of mature oak and ash. Overall, there is a very good level of connectivity to the wider landscape. The desk study identified a record of hazel dormouse along Chalk Lane connected to this site.	
12	Habitats within the Order Limits at this site consist primarily of arable farmland bordered by hedgerows and connected to a small ancient woodland, Fullmore's Copse, to the north-east. There is a moderate level of connectivity to the wider landscape; minor roads with multiple canopy connections surround the site providing dispersal opportunities. Abundant hazel present in addition to blackthorn, bramble, hawthorn and oak.	
13	Areas of woodland are connected via hedgerows to habitats within the Order Limits. These comprise Birch Frith/Aylesbury Copses and Dash Wood ancient woodlands. Species present include abundant oak, frequent hazel, holly and birch *Betula* spp., with a bracken *Pteridium aquilinum* understorey noted in places. Overall, there is a moderate level of connectivity to the wider landscape due to small areas of rural development surrounding the site. The desk study identified a record of hazel dormouse in Dashwood, Fiddlers Green which is habitat connected to this site.	

Site ID	Habitat description	Photo
14	Habitats within the south-east of this site comprise a network or hedgerows, treelines and areas of deciduous and wet woodland along the River Meon corridor. However, the majority of habitats within and close to the Order Limits are associated with Wickham Park Golf Club. Species present in the woodland close to the river includes alder *Alnus glutinosa*, willow, elder, hawthorn and oak. The small pockets of woodland associated with the golf course are species poor with a sparse shrub layer and presence of cherry laurel *Prunus laurocerasus*. However, some hazel was noted here. Recreational disturbance is likely at this site due to the presence of a golf course. Connectivity is reduced at the golf course location and Wickham to the north. There is a higher level of connectivity to the wider landscape along the river corridor which leads to another habitat corridor along the railway line to the south.	
15	Habitats within the site consist of woodland and hedgerows bordering arable and grassland fields, including areas of ancient woodland in the west, Redhill Copse and Tankerhill Copse. Species present include frequent hazel, blackthorn, hawthorn and holly. Woodland canopies within the Order Limits comprise an oak and ash canopy with limited understory. Overall, connectivity is fairly limited due to frequent areas of rural development surrounding the site, including Wickham to the south. However, the majority of minor roads have canopy connections providing opportunities for dispersal. The desk study identified a record of hazel dormouse in the Biddenfield Estate which is habitat connected to this site.	
16	Habitats within the Order Limits consist of hedgerows bordering arable fields. Ancient woodland (Long Copse) is present within the site, comprising a mixture of coniferous woodland as well as beech *Fagus sylvatica*, willow, ash, sycamore and holly. A stream and network of ditches in the woodland present, resulting in damp areas and areas of inundation. Overall, connectivity is limited due to frequent areas of rural development surrounding the site, including Wickham to the south. However, the majority of minor roads have canopy connections providing opportunities for dispersal.	

Site ID	Habitat description	Photo
17	Habitats within this site consist of lowland mixed deciduous woodland and connecting hedgerows. Species present include mature beech and oak, with an understorey of hazel, holly, birch, blackthorn and willow. The woodland is bound by minor roads to the south-east and south-west reducing connectivity to the wider landscape. However, canopy connections provide opportunities for dispersal. Connectivity and habitat suitability generally limited at this site by rural development.	
18	Habitats within this site comprise hedgerows and small areas of lowland mixed deciduous woodlands to which Sandles Copse ancient replanted woodland is connected. Woodland species include an abundant canopy of mature oak and ash with sycamore interspersed. The shrub layer comprises abundant hazel and frequent holly and blackthorn. Some recreational disturbance is present at this location due to a golf course (Meon Valley Hotel Golf and Country Club) within the site. The woodlands associated with the golf course are generally well-connected to larger ancient woodlands in the west and canopy connections over Sandy Lane. However, connectivity is limited to the north by Waltham Chase.	
19	This site comprises a small network of hedgerows and scrub bordering arable fields and a small area of broadleaved woodland. Species present includes hazel, willow, oak, blackthorn, bramble and hawthorn. Reasonably well connected to the wider landscape to the west but connectivity to the east limited by Waltham Chase.	
20	Network of hedgerows and lowland mixed deciduous woodland surrounding agricultural land. Species present include oak, ash, hawthorn, holly, blackthorn, field maple and bramble. Some coppicing noted in the woodland, but many areas left unmanaged. Overall, a reasonable level of connectivity to the wider landscape, however, some rural development in all directions.	

Site ID	Habitat description	Photo
21	A large network of woodland, treelines and hedgerows adjacent to arable land and modified grassland. The site is connected to Gunners/Brokes Copses ancient woodland. Species present include oak, ash, hazel, hawthorn, holly, bramble and blackthorn. Good connectivity to larger areas of woodland in the south-west of the site. Connectivity limited to the north by the presence of Bishop's Waltham. The arable land west of the site has a reduced connectivity in comparison to the other areas, due to lack of a hedgerow network around many fields.	
22	Network of hedgerows, treelines and areas of lowland mixed deciduous woodland surround farmland and parkland across Wintershill. Species present include bramble, blackthorn, hawthorn, oak and field maple. There is good connectivity to Kimbers Copse Ancient Woodland (which includes Kimbers Copse SINC), as well as other woodlands to the west of the site.	
23	Network of connected hedgerows and woodland that border modified grassland fields. Species present include hawthorn, blackthorn, willow, and bramble. The site is bounded by rural development and minor roads, but canopy connections provide opportunities for dispersal. To the west is East Horton Golf Club providing some recreational disturbance and reducing habitat connectivity. Overall, a limited quantity of suitable habitat is present within this site but habitats within the Order Limits may be used for dispersal across the wider landscape.	
24	Network of connected hedgerows and treelines that border modified grassland fields. Species present include hawthorn, blackthorn, bramble and dog rose *Rosa canina*. Evidence of management is present throughout the hedgerows. The survey area is bound by minor roads and rural development roads which reduces connectivity to the wider landscape. However, canopy connections across these roads may provide dispersal opportunities. Overall, a limited quantity of suitable habitat is present within this site but habitats within the Order Limits may be used for dispersal across the wider landscape.	

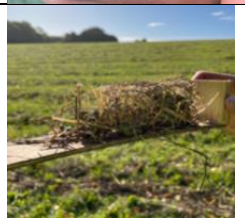
Site ID	Habitat description	Photo
25	This site comprises a large network of hedgerows and woodland surrounding arable fields and grassland. The woodland within and adjacent to the Order Limits comprises lowland mixed deciduous woodland and a large ancient woodland (Park's Hill Wood). Species present include hazel, hawthorn, holly, field maple, bramble, oak, beech, ash and blackthorn. Excellent connectivity to the ancient woodland immediately south of the Order Limits. Also, good connectivity to woodlands located further the north. Further south the urban development associated with Fair Oak limits habitat availability and dispersal opportunities.	
26	This site comprises a network of hedgerows and areas of lowland mixed deciduous woodland. Species present include mature oak, spindle *Euonymus europaeus*, hawthorn, bramble, blackthorn, field maple and hazel. In the west, Hill Copse ancient woodland is present to the south-west of the site and connected to habitats within the Order Limits. There is also good connectivity to the wider landscape, including Stoke Park Wood ancient woodland to the south. Further south the urban development associated with Fair Oak and Bishopstoke limits habitat availability and dispersal opportunities.	
27	A small site which comprises a large quantity of suitable habitat relative to its size. Habitats include hedgerow and pockets of woodland, including broadleaved and wet woodlands. Species present include willow, alder, hawthorn, hazel, oak and blackthorn. Small areas of ancient woodland are connected to the site (Lord's Wood). Connectivity to the wider landscape is provided via suitable habitats along the River Itchen corridor but also limited due to urban developments of Colden Common and Bishopstoke.	
28	Large areas of broadleaved woodland within this site with abundant bramble around the woodland edges. Species present include poplar *Populus* spp., oak, sycamore, ash, horse chestnut *Aesculus hippocastanum* and hawthorn. Also present is a network of hawthorn and bramble dominated hedgerows that border modified grassland fields. Connectivity to the wider landscape is provided via suitable habitats along the River Itchen corridor and the railway corridor but also limited due to urban developments of Colden Common and Bishopstoke.	

Site ID	Habitat description	Photo
29	Otterbourne Park Wood ancient woodland is located immediately to the west of this site. Sparrowgrove Copse and Oakwood Copse ancient woodland are also connected via suitable habitat to the site in the north. Species present includes oak, sycamore, ash, cherry and a shrub layer of hazel coppice, holly and hawthorn. A network of hedgerows surrounding arable fields are also present with the Order Limits and connect Otterbourne Park wood to the wider landscape via habitat corridors along the railway and M3 corridors. To the south, large areas of urban development reduce habitat availability and dispersal opportunities. The desk study identified records of hazel dormouse in Otterbourne Park Wood, which is habitat connected to this site.	

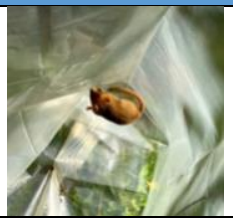
Annex B Detailed results – field survey results

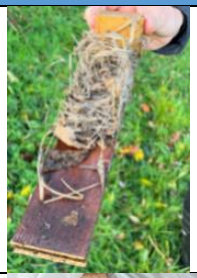
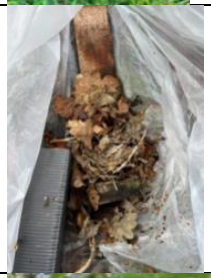
Table B-1 Results of hazel dormouse field surveys undertaken for the Proposed Development

Site ID	Total number of nest tubes deployed	Results	Evidence identified	Photograph of evidence	Grid Reference of evidence	Survey period	Index of probability points achieved
2	56 (replacement nest tubes deployed as some lost in vegetation)	Likely absent	None	-	-	From April 2024 to October 2024	22
3	50	Likely absent	None	-	-	From May 2022 to November 2022	20
4	62 (replacement nest tubes deployed as some lost in vegetation)	Likely absent	None	-	-	From August 2022 to November 2022 and from April 2024 to October 2024	12 in 2022 18 in 2024

Site ID	Total number of nest tubes deployed	Results	Evidence identified	Photograph of evidence	Grid Reference of evidence	Survey period	Index of probability points achieved
5	50	Present	Three hazel dormouse nests 19 September 2022 Adult female hazel dormouse 24 May 2023	 	SU 66252 07627 SU 66374 07520 SU 66601 07295.	From July 2022 to November 2022 and May 2023	16
6	50	Present	Hazel dormouse nest 11 October 2022		SU65957 06697	From June 2022 to November 2022	20
7	100	Present	None for the Proposed Development. Likely hazel dormouse nest July 2024 [15]	-	-	From May 2024 to November 2024	46

Site ID	Total number of nest tubes deployed	Results	Evidence identified	Photograph of evidence	Grid Reference of evidence	Survey period	Index of probability points achieved
8	50	Present	None for the Proposed Development Likely hazel dormouse nest September 2024 [15]	-	-	From July 2022 to September 2022 and from April 2023 to July 2023	20.5
9	50	Likely present	None	-	-	From April 2024 to November 2024	22
10	50	Likely present	None	-	-	From June 2022 to August 2022 and from April 2023 to September 2023	26
11	75	Present	Four dormouse nests identified 26 June 2024		SU 58065 09560	From September 2023 to June 2024	10
12	50	Present	Male adult dormouse 16 April 2024		SU 57947 10288	From September 2023 to May 2024	8
13	50	Likely Present	None	-	-	From June 2022 to May 2023	21

Site ID	Total number of nest tubes deployed	Results	Evidence identified	Photograph of evidence	Grid Reference of evidence	Survey period	Index of probability points achieved
14	50	Present	Male adult hazel dormouse and hazel dormouse nest 18 October 2022		SU55806 11024	From June 2022 to November 2022	20
15	101 (replacement nest tube deployed to replace one missing)	Present	Juvenile hazel dormouse and nest 25 October 2022		SU57013 12513	From July 2022 to November 2022 and from April 2023 - September 2023	38
16	50	Likely present	None	-	-	From July 2022 to October 2022 and from June 2022 - August 2023	21.5
17	50	Likely present	None	-	-	From May 2022 to November 2022	24
18	50	Likely present	None	-	-	From May 2022 to November 2022	20
19	65 (replacement nest tubes deployed as some lost in vegetation)	Present	Hazel dormouse nest recorded in scrub outside of nest tube 08 September 2023		SU5512714888	From August 2022 to October 2022 and from June 2023 to September 2023	16

Site ID	Total number of nest tubes deployed	Results	Evidence identified	Photograph of evidence	Grid Reference of evidence	Survey period	Index of probability points achieved
20	50	Present	Hazel dormouse nest 01November 2022		SU54522 15609	From July 2022 to November 2022	11
21	50	Present	Hazel dormouse nest 04 November2022		SU53988 15761	From May 2022 to November 2022	19
22	50	Present	Two hazel dormouse nests 11 October 2022	 	SU52638 18770 SU52644 18875.	From July 2022 to November 2022	11

Site ID	Total number of nest tubes deployed	Results	Evidence identified	Photograph of evidence	Grid Reference of evidence	Survey period	Index of probability points achieved
23	50	Present	Hazel dormouse nest 13 September 2022		SU52111 19427	From May 2022 to November 2022	9
24	50	Likely present	None	-	-	From June 2022 to May 2023	20
25	52 (replacement nest tubes deployed as some lost in vegetation)	Likely present	None	-	-	From May 2022 to November 2022	20
26	51 (replacement nest tube deployed as one lost in vegetation)	Present	Likely hazel dormouse evidence (fresh green leaves) 05 August 2022		SU47920 20786	From May 2022 to November 2022	20
27	51 (replacement nest tube deployed as one lost in vegetation)	Likely present	None	-	-	From May 2022 to May 2023	21

Site ID	Total number of nest tubes deployed	Results	Evidence identified	Photograph of evidence	Grid Reference of evidence	Survey period	Index of probability points achieved
28	52 (replacement nest tubes deployed as some lost in vegetation)	Present	Hazel dormouse nest 18 November 2022		SU47390 22497	From August 2022 to November 2022	16
29	67 (additional nest tubes deployed to cover woodland habitat)	Present	None for the Proposed Development. Two juvenile dormice 19 October 2022 and torpid dormouse 30 November 2022 [16]	-	-	From August 2022 to November 2023	30.5

References

[1] P. Bright, P. Morris and T. Mitchell-Jones, *Dormouse Conservation Handbook,* English Nature, 2006.

[2] UK Parliament, "The Conservation of Habitats and Species Regulations 2017," 2017. [Online]. Available: https://www.legislation.gov.uk/uksi/2017/1012/contents/made. [Accessed Summer 2025].

[3] Department for Environment, Food and Rural Affairs, "The Wildlife and Countryside Act 1981 (as amended)," 1981. [Online]. Available: https://www.legislation.gov.uk/ukpga/1981/69/contents. [Accessed April 2025].

[4] Department for Environment, Food and Rural Affairs, "The Natural Environment and Rural Communities Act (NERC Act) 2006 (as amended)," 2006. [Online]. Available: https://www.legislation.gov.uk/ukpga/2006/16/contents. [Accessed April 2025].

[5] East Hampshire District Council, "East Hampshire District Council Biodiversity and Planning Guidance," 2021. [Online]. Available: https://cdn.easthants.gov.uk/public/documents/Biodiversity%20Guidance%20for%20East%20Hampshire.pdf. [Accessed March 2025].

[6] Fareham Borough Council, "Fareham Local Biodiversity Action Plan Review," August 2009. [Online]. Available: https://www.fareham.gov.uk/pdf/planning/bap.pdf. [Accessed March 2025].

[7] Havant Borough Council, "Havant Borough Council Biodiversity Strategy," January 2019. [Online]. Available: https://www.havant.gov.uk/sites/default/files/documents/Havant%20Borough%20Biodiversity%20Strategy.pdf. [Accessed March 2025].

[8] Winchester City Council, "Winchester City Council Biodiversity Action Plan," 2021. [Online]. Available: https://www.winchester.gov.uk/nature-emergency/biodiversity. [Accessed April 2025].

[9] Natural England, "Hazel dormice: advice for making planning decisions," 2022. [Online]. Available: https://www.gov.uk/guidance/hazel-dormice-advice-for-making-planning-decisions. [Accessed February 2025].

[10] Chartered Institute of Ecology and Environmental Management, *Competencies for Species Survey: Hazel Dormouse,* Winchester: CIEEM, 2013.

[11] R. Juksaitis and S. Buchner, *The Hazel Dormouse,* Westarp Wissenschaften, 2013.

[12] A. Mortelliti, S. Giulia, D. A. Driscoll, L. Bani, L. Biotani and D. B. Lindenmayer, *Population and individual-scale responses to patch size, isolation and quality in the hazel dormouse,* vol. 5, 2014, pp. 1-21.

[13] S. Büchner, *Dispersal of common dormice Muscardinus avellanarius in a habitat mosaic,* vol. 53, 2008, pp. 259-262.

[14] Portsmouth Water, *Environment Statement Volume 4 - Appendices. Appendix A9 Biodiversity. A9.5 Hazel Dormouse Survey Report,* Portsmouth Water, 2019.

[15] AtkinsRéalis UK Limited, *Farlington the Nelson Hazel Dormouse Survey Report,* Portsmouth Water, 2024.

[16] Southern Water, *Hazel Dormouse Survey Report: 710026 Southampton Link Main,* Southern Water, 2023.

[17] Applied Ecology Ltd, *Harts Farms Way, Havant Ecology Report,* Applied Ecology Ltd, 2021.

[18] D. Wells, P. Chanin, L. Gubert and F. Matthews, *Hazel Dormouse Mitigation Handbook,* The Mammal Society, 2025.


WATER
for LIFE®
from
Southern
Water®