

SULLY TO COSMESTON ATR

Hazel Dormouse Survey Report

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Contacts

SIÂN CARR
Principal Consultant

m ++44 7738 140159

e sian.carr@arcadis.com

Arcadis Consulting (UK) Limited

Arcadis Cymru House,

St Mellons Business Park,

Fortran Road,

Cardiff,

CF3 0EY

United Kingdom

Sully to Cosmeston SULLY TO COSMESTON ATR

Hazel Dormouse Survey Report

Author Ellen Hopkins and Rachel Turcan
Checker Siân Carr
Approver Samantha Walters
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This report dated 11 December 2023 has been prepared for Vale of Glamorgan Council (the “Client”) in accordance with the terms and conditions of appointment dated 01 June 2022 (the “Appointment”) between the Client and **Arcadis Consulting (UK) Limited** (“Arcadis”) for the purposes specified in the Appointment. For avoidance of doubt, no other person(s) may use or rely upon this report or its contents, and Arcadis accepts no responsibility for any such use or reliance thereon by any other third party.

CONTENTS

1	Introduction and Aims	6
1.1	Background	6
1.2	Site Location	6
1.3	Proposals.....	6
1.4	Review of Existing Information	7
2	Legislation and Conservation Status	7
3	Methodology	9
3.1	Dormouse Survey	9
3.2	Limitations.....	10
4	Results	10
5	Discussion and Conclusion	11
6	Recommendations	11
6.1	Mitigation and Enhancement Measures	11
7	References	12
DRAWINGS		13
	Drawing 10056562-ARC-AT-010-DR-E-00003 Dormouse Nest Tube Locations	13

Summary

Arcadis Consulting (UK) Ltd (Arcadis) has been commissioned by Vale of Glamorgan Council to undertake hazel dormouse (*Muscardinus avellanarius*) surveys to inform the design of the proposed active travel route (ATR) between Sully and Cosmeston. This report summarises the results of dormouse surveys undertaken by Arcadis between June and November 2023.

An extended Phase 1 habitat survey and desk study were undertaken by Arcadis 2023. The Phase 1 habitat survey identified the woodland, scrub, and hedgerows within the proposed development footprint as suitable to support foraging and breeding hazel dormouse (referred to as dormouse).

The proposals will lead to some vegetation clearance, of which the extent is currently unknown, and therefore has potential to negatively impact dormouse if found to be present. Nest tube surveys were undertaken within the woodland and hedgerow network surrounding the proposed ATR between Sully and Cosmeston between June and November 2023.

No signs of dormouse were found during the surveys, but due to the proximity of dormouse records at Cosmeston Livery from 2017 in locations linked to the site, a sensitive approach to vegetation clearance is recommended. Hedgerow and woodland habitat should be retained where possible. Replacement hedgerow and woodland planting should be included in the design to ensure a net benefit for biodiversity and alternative green corridors and connectivity. An ecologist should continue to be consulted as the design develops and the onsite construction works progress.

Where vegetation clearance is required, this should be in accordance with a method statement and subject to seasonal restrictions to minimise impacts to dormouse.

In line with guidance on the lifespan of surveys and reports, this report is valid for 18 months (i.e. until June 2025) [1].

1 Introduction and Aims

1.1 Background

Arcadis Consulting (UK) Ltd (Arcadis) has been commissioned by the Vale of Glamorgan Council to undertake hazel dormouse (*Muscardinus avellanarius*) surveys to inform the design of a proposed active travel route (ATR) between Sully and Cosmeston. The objective of this report is to detail the results of the hazel dormouse (hereafter referred to as dormouse) surveys undertaken on site.

The aim of the survey was to establish the presence/likely absence of dormouse within the site boundary to identify potential ecological constraints to the proposed development and provide recommendations for appropriate mitigation.

1.2 Site Location

The site is located between Penarth and Barry with a central grid reference of ST 17533 68504. The site links Sully to Cosmeston Lakes via a disused railway and existing footpath along the B4267 road. The site boundary is shown below in Figure 1.



© Google Image

Figure 1 Overview of proposed active travel route between Sully and Cosmeston

1.3 Proposals

The proposals for the site are for a new ATR between Sully and Cosmeston. An ATR is a path that will be used for walking and cycling (including the use of mobility scooters) for everyday journeys. The western section of the site includes two potential options. One of the options follows the footpath on the northern side of the minor road the B4267. The second option follows a disused railway line to the north of the B4267. The central section of the site is along a footpath and old disused railway line off road. The eastern section is located predominately along a bare ground track through tall ruderal and grassland habitat. This section

connects with the hardstanding of the residential street, Cosmeston Drive. The existing footpath and disused railway are likely to need widening and the proposals will lead to some vegetation clearance, but the extent of vegetation clearance is currently unknown. There may be a requirement to incorporate lighting along the travel route.

1.4 Review of Existing Information

An extended Phase 1 habitat survey and desk study were undertaken by Arcadis in 2023 [2]. The Phase 1 habitat survey identified the woodland, scrub, and hedgerows within the proposed development as suitable to support foraging and breeding dormouse, a range of suitable food sources were present along the proposed development, including, Hazel (*Corylus avellana*), Bramble (*Rubus fruticosus agg.*) and oak (*Quercus sp.*).

The desk study returned four records of dormouse. These records were from the Cosmeston Livery and Dinas Powys, with the closest record being within a hedgerow 58m northeast from the site which is connected to the site boundary where the site supports habitat that is sub-optimal for dormouse (as explained in section 3.2 limitations). This record of dormouse is from 2017.

2 Legislation and Conservation Status

This section provides an overview of the legislation applicable to dormouse. For further information the source legislation should be reviewed.

The dormouse is protected by National and European legislation. It is listed under Schedule 5 of the Wildlife and Countryside Act (WCA) 1981 (as amended) [3] which makes it an offence to:

- intentionally kill, injure or take a dormouse;
- possess or control any live or dead specimen or anything derived from a dormouse;
- intentionally or *recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a dormouse (whether occupied or not); and
- intentionally or *recklessly disturb a dormouse while it is occupying a structure or place which it uses for that purpose.

*The term “recklessly” was added as an amendment to the Wildlife and Countryside Act 1981 (as amended) as a result of the Countryside and Rights of Way Act 2000 [4].

The dormouse is included on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended) [5] which makes it an offence to:

- deliberately capture or kill a dormouse;
- deliberately disturb a dormouse;
- damage or destroy a breeding site or resting place of a dormouse; and
- keep, transport, sell or exchange, or offer for sale or exchange a live or dead dormouse or any part of a dormouse.

The dormouse is a Section 7 of the Environment (Wales) Act 2016 [6] species.

National and local policies are in place to ensure developments have regard to protected sites and species that are notable or locally important in the area. Planning Policy Wales 2021 [7], supplemented by Technical Advice Note 5 [8], states that planning authorities must seek to maintain and enhance biodiversity providing a net benefit.

Local planning policy for ecology and biodiversity is provided in the Vale of Glamorgan Replacement Local Development Plan (LDP) [9]. The following policies are of most relevance to this report:

POLICY MD9 - PROMOTING BIODIVERSITY

New development proposals will be required to conserve and where appropriate enhance biodiversity interests unless it can be demonstrated that:

1. The need for the development clearly outweighs the biodiversity value of the site; and
2. The impacts of the development can be satisfactorily mitigated and acceptably managed through appropriate future management regimes.

POLICY SP10 - BUILT AND NATURAL ENVIRONMENT

Development proposals must preserve and where appropriate enhance the rich and diverse built and natural environment and heritage of the Vale of Glamorgan including:

1. The architectural and / or historic qualities of buildings or conservation areas, including locally listed buildings;
2. Historic landscapes, parks and gardens;
3. Special landscape areas;
4. The Glamorgan Heritage Coast;
5. Sites designated for their local, national and European nature conservation importance;
6. Important archaeological and geological features.

POLICY MG19 - SITES AND SPECIES OF EUROPEAN IMPORTANCE

Development proposals likely to have a significant effect on a European site, when considered alone or in combination with other projects or plans will only be permitted where:

1. The proposal is directly connected with or necessary for the protection, enhancement and positive management of the site for conservation purpose; or
2. The proposal will not adversely affect the integrity of the site;
3. There is no alternative solution;
4. There are reasons of overriding public interest; and
5. Appropriate compensatory measures are secured.

Development proposals likely to have an adverse effect on a European protected species will only be permitted where:

1. There are reasons of overriding public interest;
2. There is no satisfactory alternative; and
3. 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.

POLICY MG20 - NATIONALLY PROTECTED SITES AND SPECIES

Development likely to have an adverse effect either directly or indirectly on the conservation value of a site of special scientific interest will only be permitted where it is demonstrated that:

1. There is no suitable alternative to the proposed development; and
2. It can be demonstrated that the benefits from the development clearly outweigh the special interest of the site; and
3. Appropriate compensatory measures are secured; or
4. The proposal contributes to the protection, enhancement or positive management of the site.

Development proposals likely to affect protected species will only be permitted where it is demonstrated that:

1. The population range and distribution of the species will not be adversely impacted;
2. There is no suitable alternative to the proposed development;

3. The benefits of the development clearly outweigh the adverse impacts on the protected species; and
4. Appropriate avoidance, mitigation and compensation measures are provided.

Where impacts are identified the Council will require applicants to demonstrate that appropriate measures have been incorporated to reduce, or minimise the impact identified to the lowest possible acceptable level.

Supplementary Planning Guidance Note [10]: Sustainable Development recognises that Sustainable Urban Drainage Systems (SUDS), green roofs and green infrastructure support the enhancement of biodiversity and that such provision is an important consideration in achieving sustainability, through good design, whilst promoting biodiversity.

New development proposals will be required to conserve and where appropriate enhance biodiversity interests unless it can be demonstrated that: 1) the need for the development clearly outweighs the biodiversity value of the proposed development; and 2) the impacts of the development can be satisfactorily mitigated and acceptably managed through appropriate future management regimes.

3 Methodology

3.1 Dormouse Survey

Dormouse surveys were undertaken in accordance with the guidance provided in The Dormouse Conservation Handbook [11].

The ‘dormouse nest-tube survey methodology’ was used, whereby specially constructed artificial nesting tubes were fastened underneath horizontal branches in areas of suitable habitat using garden wire and were left in place over a period of several months. When present, dormouse often find and make nests in these tubes and presence can then be detected by means of periodic monitoring to find actual animals or nests, both of which are distinctive.

The standard survey methodology requires the deployment of at least 50 nest tubes and uses an index of probability to calculate a survey effort score. Nest tubes are most frequently occupied in May, August and September and so these months score the highest. The guidelines state that “assumed absence should not be based on a search effort score of less than 20”.

Sixty dormouse tubes were deployed in the hedgerows and woodland identified as suitable dormouse habitat on 19 May 2023 by licenced surveyor Julie Player MCIEEM (licence number: S089877-1) and assisted by Rachel Turcan (qualifying member of CIEEM). These locations can be found on Drawing 10056562-ARC-AT-010-DR-E-00003.

Nest tube checks were carried out monthly between June and November 2023. Surveys were carried out by licensed surveyors: Julie Player, Siân Carr MCIEEM (licence number: S089962-1), and Rebecca Howells (accredited on Siân Carr’s licence) and assisted by Morgan Greedy and Rachel Turcan as indicated in Table 1 below.

Table 1 Dormouse Survey Visits

Survey Date	Surveyors	Weather Conditions	Survey Score
19 May 2023	Julie Player and Rachel Turcan	17°C, dry, sunny	N/A – Tubes Deployed
22 June 2023	Sian Carr and Rebecca Howells	22°C, sunny and dry	2
17 July 2023	Rebecca Howells and Morgan Greedy	17°C, cloudy, dry, wind 16 mph	2

Survey Date	Surveyors	Weather Conditions	Survey Score
14 August 2023	Rebecca Howells and Morgan Greedy	20°C, cloudy, dry	5
15 September 2023	Julie Player and Rachel Turcan	21°C, dry, sunny	7
18 October 2023	Julie Player and Rachel Turcan	11°C, cloudy, scattered showers	2
7 November 2023	Julie Player and Rachel Turcan	13°C, cool and cloudy	2 Tubes Collected
Total			20

3.2 Limitations

In line with guidance on the lifespan of surveys and reports, this report is valid for 18 months (i.e. until June 2025) [1].

Nest tubes were not deployed at the north-east end of the proposed route, along Cosmeston Drive, due to the area containing private gardens and residential buildings and therefore unsuitable habitat for dormouse. The habitat being impacted along the disused railway at the north-east end is predominantly grassland with scattered trees. This habitat would not be suitable for dormouse; therefore tubes were not deployed in this section. Due to access issues, tubes were also not deployed in the area highlighted in yellow on Drawing 10056562-ARC-AT-010-DR-E-00003.

4 Results

No evidence of dormouse or nests was found in any of the tubes along the Sully to Cosmeston route. One wood mouse (*Apodemus sylvaticus*) was found in tube 11 during the September, October, and November surveys. The nest did not have any signs of being previously constructed or occupied by dormouse.

Table 2 Dormouse Nest Tube Survey Results

Survey Date	Survey Result
19 May 2023	N/A – tubes deployed
22 June 2023	No evidence
17 July 2023	No evidence
14 August 2023	No evidence
15 September 2023	Tube 11B – 1 x wood mouse
18 October 2023	Tube 11B – 1 x wood mouse
7 November 2023	Tube 22A and 6B – Wood mouse nest Tube 23A and 11 B – 1 x wood mouse Tube 7B – 2 x wood mouse

5 Discussion and Conclusion

The surveys have demonstrated the likely absence of dormouse. Desk study data suggests that they may be present in the immediate vicinity of the site in habitat that is connected to the site. Dormouse live at very low densities and it is not possible to obtain a licence to remove habitat on a precautionary basis that dormouse may be present.

Proposed works requiring removal of sections of hedgerow, trees, scrub, and woodland have the potential to kill, injure, or disturb dormouse and fragment available habitat. It is therefore recommended that vegetation clearance is overseen by an Ecological Clerk of Works (ECoW) and takes place in accordance with a precautionary method statement detailing approaches such as sensitive directional clearance, towards retained habitat. Timing of clearance of vegetation should be phased to minimise harm to dormouse.

The method statement should form part of the Construction Environment Management Plan (CEMP) and replacement hedgerow planting would need to be included in the design to ensure a net benefit for biodiversity and alternative green corridors/connectivity for dormouse and other species.

An Ecologist should continue to be consulted as the design develops and the onsite construction works progress.

6 Recommendations

6.1 Mitigation and Enhancement Measures

Although dormouse has not been confirmed as present within the site, measures should be implemented to maximise the value of the site for dormouse and to safeguard dormouse due to records in adjacent and nearby habitats. The following measures should be incorporated:

- Retain hedgerows, scrub and woodland where possible;
- Vegetation clearance to be sensitively programmed to be of least risk to dormouse life cycle. Periods of time to avoid vegetation clearance comprise hibernation (November to March) and the breeding window (June to August/September).
- Encourage dormouse to leave the area of their own accord using a two-stage process. This involves cutting tree/ shrub vegetation over winter, with minimal ground disturbance (e.g., tree shears) and then undertaking stump removal once dormouse typically emerge from hibernation and would have left the area (late April/ May) in search of suitable foraging habitat. Displacement of dormouse using this method should only be used where short sections of hedgerow habitat or small areas of tree/shrub habitat need to be removed. Nest boxes would need to be used to move dormouse from large areas of habitat.
- Enhance adjacent habitat for dormouse through new tree and shrub planting. Species recommended for planting which provide food sources for dormouse include Hazel, oak, honeysuckle (*Lonicera periclymenum*), Bramble, hawthorn, Broom (*Cytisus scoparius*), Yew (*Taxus baccata*), Wayfaring-tree (*Viburnum lantana*).
- Avoid artificial lighting of woodland and hedgerows.
- Provision and maintenance of nest boxes. This can increase the carrying capacity of the habitat, increasing population density. If not occupied by dormouse, these boxes can be beneficial to a range of other wildlife.

7 References

- [1] CIEEM, "Advice Note on the Lifespan of Ecological Reports and Surveys," 2019.
- [2] Arcadis Consulting (UK) LTD, " Sully to Cosmeston ATR Preliminary Ecological Appraisal. Document reference: 10056562-ARC-AT-300-RP-E-00001," 2023.
- [3] His Majesty's Stationary Office, "Wildlife and Countryside Act (as amended)," HMSO, London, 1981.
- [4] His Majesty's Stationary Office, "Countryside and Rights of way Act 2000," 2000.
- [5] His Majesty's Stationary Office, "The Conservation of Habitats and Species Regulations 2017 (as amended by EU Exit Regulations 2019)," 2017. [Online].
- [6] His Majesty's Stationary Office, "The Environment (Wales) Act," 2016.
- [7] Welsh Government, "Planning Policy Wales Edition 11," 2021.
- [8] Welsh Government, "Technical Advice Note 5 Nature Conservation and Planning," 2009.
- [9] Vale of Glamorgan Council, "Vale of Glamorgan Local Development Plan 2011 - 2026.," Barry, 2017.
- [10] Vale of Glamorgan council, "Supplementary Planning Guidance: Sustainable Development," Barry, 2006.
- [11] Bright, P., Morris, P., & Mitchell-Jones, T, Dormouse Conservation Handbook (Second edition), Peterborough: English Nature, 2006.

DRAWINGS

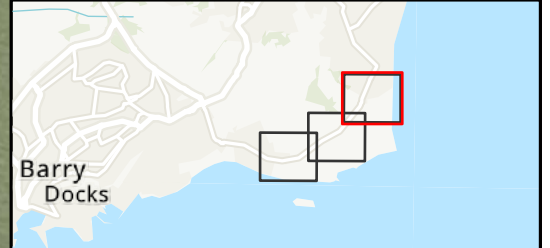
Drawing 10056562-ARC-AT-010-DR-E-00003 Dormouse Nest Tube Locations



Legend


- Site boundary
- Location of Nest Tube**
- Group A
- Group B

Notes
 World Imagery: Maxar, Microsoft
 World Topographic Map: Esri UK, Esri, HERE, Garmin, Foursquare, METI/NASA, USGS



Rev	Date	Description	Drawn	Check	Approv
01	14-09-23	INITIAL ISSUE	RP	EH	SW

Client:



VALE of GLAMORGAN
BRO MORGANNWG

PROJECT:
SULLY TO COSMESTON ATR

Site

Sully to Cosmeston
Active Travel Route

Client

Vale of Glamorgan County Borough Council



Registered office:
80Fen
80 Fenchurch Street
London
EC3M 4BY

Coordinating Office:
Cymru House
St Mellons Business Park
Fortran Road
Cardiff, CF3 0EY

www.arcadis.com

Title:

Dormouse Nest Tube Location Plan

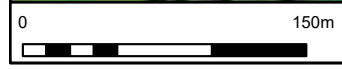
Page 1 of 3

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Checked	E. Hopkins	Date: 14 SEP 23	Signed
Approved	S. Walters	Date: 14 SEP 23	Signed
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Suitability Code:	S2	Project Number:	10056562

Suitability Description:

For Information

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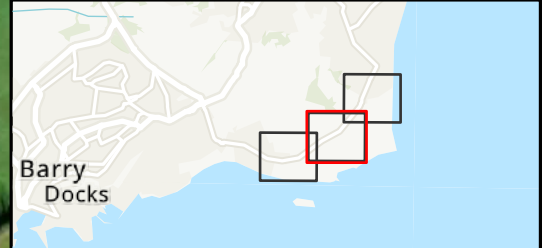




Legend

- Site boundary
- No Access
- Location of Nest Tube**
- Group A
- Group B

Notes
 World Imagery: Maxar, Microsoft
 World Topographic Map: Esri UK, Esri, HERE, Garmin, Foursquare, METI/NASA, USGS



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www.arcadis.com

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Dormouse Nest Tube Location Plan

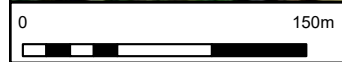
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Approved	S. Walters	Date	14 SEP 23	Signed
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Suitability Description:

For Information

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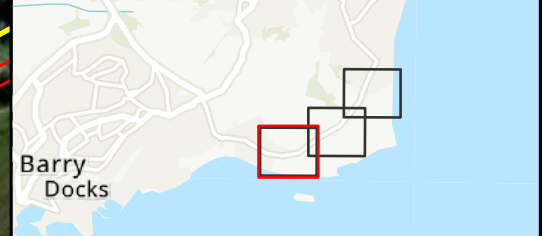




Legend


- Site boundary
- Location of Nest Tube**
- Group A
- Group B

Notes
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 World Topographic Map: Esri UK, Esri, HERE, Garmin, Foursquare, METI/NASA, USGS



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01	14-09-23	INITIAL ISSUE	RP	EH	SW

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VALE of GLAMORGAN
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PROJECT:
SULLY TO
COSMESTON ATR

Site

Sully to Cosmeston
Active Travel Route

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80 Fen
80 Fenchurch Street
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Cardiff, CF3 0EY

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Title:

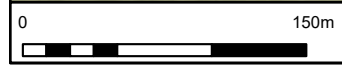
Dormouse Nest Tube Location Plan

Page 3 of 3

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Approved	S. Walters	Date	14 SEP 23	Signed
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Arcadis Consulting (UK) Limited

Arcadis Cymru House
St Mellons Business Park
Fortran Road
Cardiff
CF3 0EY
United Kingdom

T: +44 (0)29 2092 6700

arcadis.com