

**Rampion 2 Wind Farm**  
**Category 6:**  
**Environmental Statement**  
**Volume 4, Appendix 22.19:**  
**Hazel dormouse report 2023**  
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## Document revisions

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| Revision | Date       | Status/reason for issue          | Author | Checked by | Approved by |
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| A        | 16/01/2024 | New survey report for submission | WSP    | RED        | RED         |

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# 1. Introduction

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## 1.1 Background

- 1.1.1 This report forms an addendum to, and should be read in conjunction with, [Appendix 22.9: Hazel dormouse report 2020-2022, Volume 4](#) of the Environmental Statement (ES) [APP-187] submitted as part of the application for the Rampion 2 Offshore Wind Farm, and the assessment of the potential effects of the Proposed Development on hazel dormouse provided in [Chapter 22: Terrestrial ecology and nature conservation, Volume 2](#) of the ES [APP-063].
- 1.1.2 Previous hazel dormouse *Muscardinus avellanarius* surveys were undertaken at eight survey sites between 2020 and 2022 ([Appendix 22.9: Hazel dormouse report 2020-2022, Volume 4](#) of the ES [APP-187]), with the purpose of those surveys being to inform the ES. Following completion of these surveys, the routing of the onshore transmission cable corridor was amended. This change triggered the need for further dormouse surveys to adequately inform the ES.
- 1.1.3 This report describes the survey methods and summarises the results of dormouse surveys undertaken at Site 9 in 2023 (see [Figure 22.19.1, Annex A](#)).

## 1.2 Purpose of this report

- 1.2.1 The proposed Development Consent Order (DCO) Order Limits, including Site 9, includes areas with the potential to support hazel dormouse, a European Protected Species (EPS)<sup>1</sup>.
- 1.2.2 This report outlines the methodologies used, and summarises the results gathered as part of an effort to determine the presence of hazel dormouse at Site 9.
- 1.2.3 Nest tube surveys were undertaken between May and September in 2023; guidance (e.g. Bright et al., 2006) suggests that these are the months in which hazel dormouse are most likely to be encountered during surveys.
- 1.2.4 The following survey methodologies were used:
- nest tube survey to ascertain presence / likely absence; and
  - hazelnut search within areas considered suitable habitat.
- 1.2.5 The hazel dormouse surveys were designed to identify the presence or likely absence of hazel dormouse within, or close to, the proposed DCO Order Limits connected by functionally linked habitat.
- 1.2.6 An updated desk study, including collation of data search results for hazel dormouse in the area, was undertaken in 2023 to inform the ES. The results of this data search were summarised in [Appendix 22.2 Terrestrial ecology desk study](#),

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<sup>1</sup> A European Protected Species receives specific legal protection under the *Conservation of Habitats and Species Regulations 2017 (as amended)*.

**Volume 4** of the ES [APP-180]. No further update was required to inform this report.

## 1.3 Summary of legislation and policy

1.3.1 The *Natural Environment and Rural Communities Act (2006)* (as amended) places a statutory duty on planning authorities to ensure due regard is given the conservation of biodiversity. Hazel dormouse are protected under the *Wildlife and Countryside Act 1981* (as amended). This legislation makes it an offence to intentionally or recklessly:

- *“disturb hazel dormice while they occupy a structure or place used for shelter or protection; or*
- *obstruct access to a place of shelter or protection.”*

1.3.2 This species is also designated and protected as an EPS. EPS are protected under the *Conservation of Habitats and Species Regulations 2017* (as amended), which makes it an offence to:

- *“deliberately kill, injure, disturb or capture them;*
- *damage or destroy their breeding sites and resting places; or*
- *possess, control, transport (alive or dead).”*

## 1.4 Structure of this report

1.4.1 This report is structured as follows:

- **Section 2: Methods;**
- **Section 3: Results;**
- **Section 4: Discussion;**
- **Section 5: References;** and
- **Annex A: Figures.**

## 2. Methods

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### 2.1 Site selection

- 2.1.1 Optimal hazel dormouse habitat is comprised of coppiced woodland, containing hazel, oak, bramble and honeysuckle, which are important food sources. Ancient semi-natural woodland, broadleaved deciduous woodland and dense, outgrown hedgerows that support a range of fruit-bearing species and are well-connected to the wider landscape are considered good hazel dormouse habitat (Bright, 2006).
- 2.1.2 Site 9 (**Figure 22.19.1**) was selected as it falls within the proposed DCO Order Limits and contains a mix of hedgerow, broadleaved woodland and mixed scrub; habitats suitable to support hazel dormouse. The site is also functionally linked to adjacent areas of potential hazel dormouse habitat.

### 2.2 Survey guidance

- 2.2.1 The following survey guidance was taken into account in the methodology design. Any deviation from standard industry practice is noted in **Section 2.3**:
- Interim Natural England Advice Note: Dormouse Surveys for Mitigation Licensing – Best practice and common misconceptions (Natural England, 2011);
  - The Dormouse Conservation Handbook, Second Edition (Bright et al., 2006); and
  - Standing Advice Note; Dormouse (Natural England, 2015).

### 2.3 Field survey methodology

- 2.3.1 The survey guidance set out by Bright et al. (2006) states that to effectively detect presence or likely absence of hazel dormouse, a minimum of 50 nest tubes should be placed in every continuous area of suitable habitat. The nest tube mimics a suitable nesting site on a branch of a tree or shrub. Nest tubes were made from a stiff black plastic sheet folded into a tube measuring approximately 5cm x 5cm square in cross section and 25cm long. A plywood tray is placed inside, with one end of the tube sealed with a wooden block mounted on the tray. Tubes were tied to the underside of suitable branches using wire.
- 2.3.2 A total of 100 nest tubes were deployed across Site 9. A summary of the distribution of the nest tubes is presented in **Figure 22.19.1**.
- 2.3.3 The nest tubes were installed on Site 9 in suitable vegetation on 21 April 2023, with monthly survey visits undertaken between May and September 2023. Surveys were carried out in accordance with the Dormouse Conservation Handbook (Bright et al., 2006), by a licensed ecologist. During these monthly visits, any signs of dormouse, including individuals, nests and feeding signs (e.g. gnawed nuts) were recorded.

## Nest tube technique

- 2.3.4 To effectively check each nest tube, a quiet and careful approach was made by the surveyor before the entrance was sealed with a cloth to prevent animals from escaping before they could be recorded. The inside of the tube was then carefully inspected for the presence of nests or animals. Any nesting material found within nest tubes was replaced 'as found' and the nest tube retied in the same location.
- 2.3.5 Good practice guidance provides an index of the probability of detecting hazel dormouse presence in tubes in each month between April and November using a minimum of 50 nest tubes as standard, 100 were deployed at Site 9. Using this scoring system, a survey effort of 20 is required to meet the minimum standards for detecting hazel dormouse presence, the survey effort achieved a survey score of 21, which is considered to have met the effort indicated in the guidance as shown in **Table 2-1** below.

## Other hazel dormouse field signs

- 2.3.6 During each hazel dormouse survey visit other signs of hazel dormice presence were also searched for around tube locations, such as nests within trees and shrubs, and feeding remains comprising hazelnuts, honeysuckle flowers and stripped honeysuckle bark.

## Index of Probability

- 2.3.7 The current standing advice note from Natural England (Natural England 2011) bases the level of survey effort required and the corresponding likelihood of detecting dormouse on an Index of Probability (the 'index'). This index based on the number of nest tubes used for survey, combined with the number of months over which the surveys of the nest tubes is undertaken.
- 2.3.8 Within the index, each month has a probability value associated with it based on the known suitability of dormouse to use nest tubes within that month. The highest probability values are obtained during May, August and September, relating to the period of early nest building and dispersing sub-adults (see **Table 2-1**).

**Table 2-1 Index of probability score per month for nest tubes deployed between April and November**

| Month              | Index of probability score (Bright et al. 2006) for 50 tubes | Score achieved during the survey |
|--------------------|--|----------------------------------|
| April              | 1  | 0 (tubes deployed late in month) |
| May                | 4  | 4                                |
| June               | 2  | 2                                |
| July               | 2  | 2                                |
| August             | 5  | 5                                |
| September          | 7  | 7                                |
| October            | 2  | 0                                |
| November           | 2  | 0                                |
| <b>Total Score</b> | <b>25</b>  | <b>21</b>                        |

2.3.9 For a survey to be considered valid according to the index, the total ‘score’ of all combined months during which a survey is completed must total at least 20. The 2023 surveys on site achieved a score of 21 and are therefore considered valid and robust.

## 2.4 Limitations and constraints

2.4.1 There were no limitations or constraints associated with the surveys.



## 3. Results

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### 3.1 2023 Dormouse survey results

- 3.1.1 No hazel dormice were recorded during the surveys. No evidence of hazel dormouse nests or gnawed hazel nuts were recorded. As the survey achieved the necessary 20 points for the index of probability test, it is concluded that there is likely absence of hazel dormouse within Site 9. Full results are shown in **Table 3-1**.

**Table 3-1 Survey dates and findings for the 2023 additional dormouse survey site 9**

| Date              | Hazel dormouse Survey results   |
|-------------------|---|
| 21 April 2023     | No evidence of hazel dormouse   |
| 25 May 2023       | No evidence of hazel dormouse   |
| 22 June 2023      | No evidence of hazel dormouse.<br><br>Wood mouse nest was identified in Tube 004 (Target note 1 on <b>Annex A, Figure 22.19.1</b> )   |
| 20 July 2023      | No evidence of hazel dormouse.<br><br>Wood mouse food cache identified in Tube 060 (Target note 2 on <b>Annex A, Figure 22.19.1</b> ) |
| 31 August 2023    | No evidence of hazel dormouse   |
| 07 September 2023 | No evidence of hazel dormouse   |

## 4. Discussion

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### 4.1 Overview

- 4.1.1 No evidence of hazel dormouse were found during the 2023 surveys of Site 9. It is therefore concluded that this species is likely absent at Site 9 and therefore present no constraint to the Proposed Development at this location.

## 5. References

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Bright, P., Morris, P. and Mitchell-Jones, T. (2006). *The dormouse conservation handbook*. Second edition. English Nature, Peterborough.

Chartered Institute of Ecology and Environmental Management (CIEEM), (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland* [Online] Available at: <https://cieem.net/wp-content/uploads/2018/08/ECIA-Guidelines-2018-Terrestrial-Freshwater-Coastal-and-Marine-V1.2-April-22-Compressed.pdf> [Accessed 24 November 2023].

Chartered Institute of Ecology and Environmental Management (CIEEM), (2021). *Guidelines on Ecological Survey and Assessment in the UK During the COVID-19 Outbreak*, Version 4. [Online] Available at: <https://cieem.net/wp-content/uploads/2020/06/CIEEM-Guidance-on-Alternative-Approaches-v4-FINAL.pdf> [Accessed 24 November 2023].

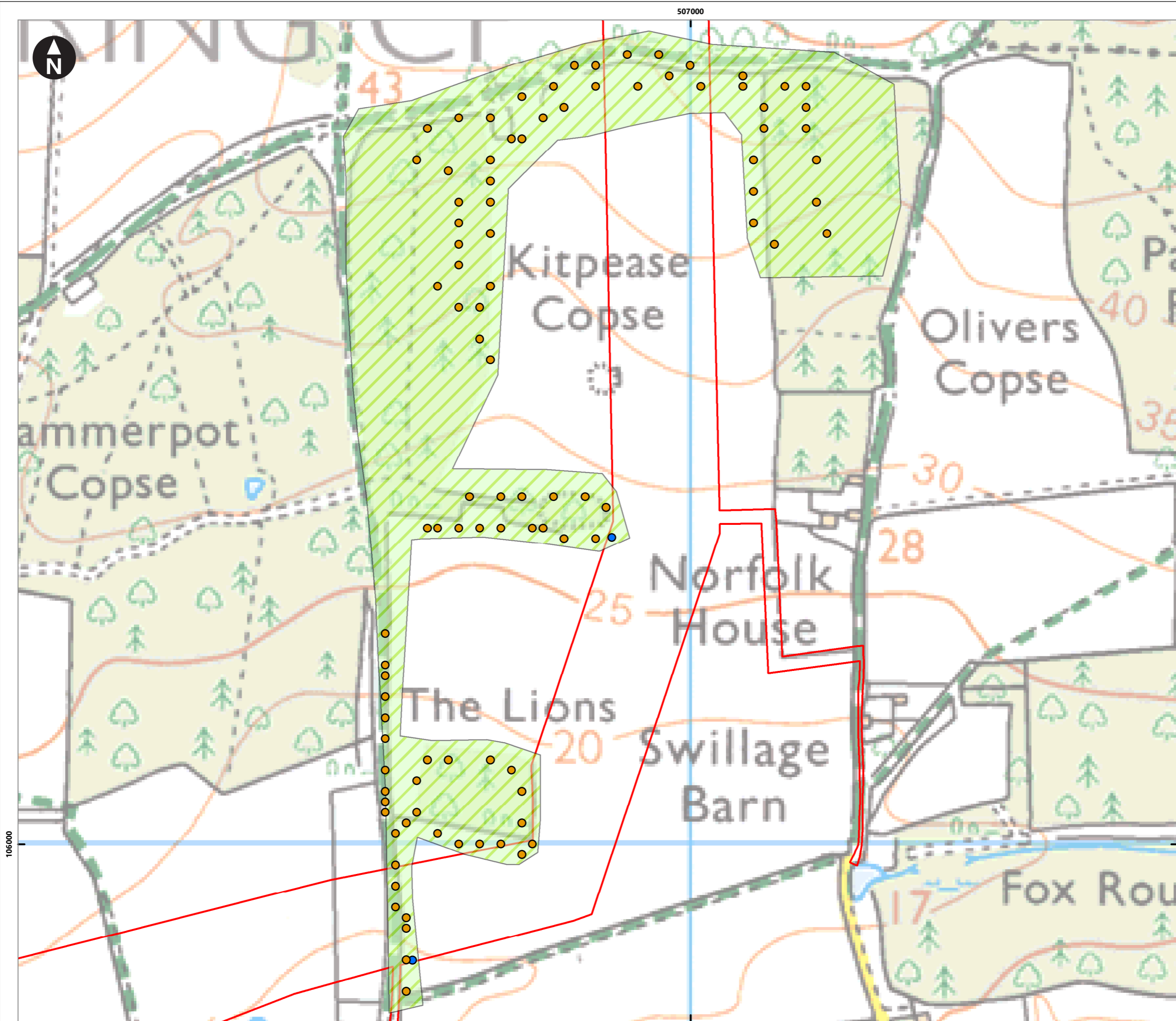
Natural England, (2011). *Interim Natural England Advice Note; Dormouse Surveys for Mitigation Licensing – Best practice and common misconceptions*. WML-G37 (12/11) Natural England; York.

Natural England, (2015). *Standing advice note; Dormouse*. Natural England; York.

*Natural Environment and Rural Communities Act 2006*. [Online] Available at: <https://www.legislation.gov.uk/ukpga/2006/16/contents> [Accessed 24 November 2023].

*The Conservation of Habitats and Species Regulations 2010*. [Online] Available at: <https://www.legislation.gov.uk/uksi/2010/490/contents/made> [Accessed 24 November 2023].

*Wildlife and Countryside Act 1981*. [Online] Available at: <https://www.legislation.gov.uk/ukpga/1981/69> [Accessed 24 November 2023].

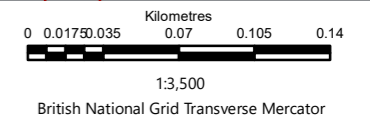
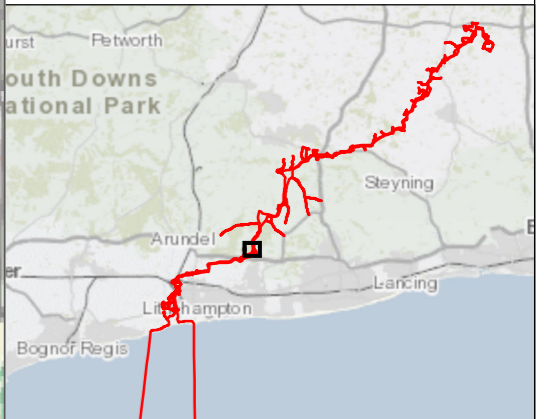


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Ordnance Survey 0100031673

**Key**

- Proposed DCO Order Limits
- Survey site 9
- Dormouse tube locations
- Target note



Rampion Extension Development



Rampion 2 Offshore Wind Farm  
Hazel Dormouse Report 2023 (Site 9:  
Hammerpot)

Figure 22.19.1 Dormouse survey 2023 tube locations and results

|   |                 |
|---|-----------------|
| System Identifier:<br>42285-WSPE-CO-ON-FG-OO-9750 | Version:<br>3.0 |
|---|-----------------|

|                 |                    |                    |                           |                  |
|-----------------|--------------------|--------------------|---------------------------|------------------|
| Company:<br>WSP | Drawn By:<br>HADJE | Chk/Prvd:<br>SUTET | Drawn Date:<br>08/01/2024 | Status:<br>FINAL |
|-----------------|--------------------|--------------------|---------------------------|------------------|

