



# Botley West Solar Farm

Environmental Statement

**Volume 3**

**Appendix 9.11: Dormouse Survey Report**

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## Approval for Issue

Jonathan Alsop

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- Annex A Survey Dates and Weather Conditions

## Glossary

Term	Meaning
The Applicant	SolarFive Ltd (SolarFive)
The Project	Botley West Solar Farm
The Developer: Photovolt Development Partners GmbH	Photovolt Development Partners GmbH (PVDP).

## Abbreviations

Abbreviation	Meaning
ES	Environmental Statement
PVDP	Photovolt Development Partners GmbH
TVERC	Thames Valley Environmental Records Centre.

## Units

Unit	Description
m	metres

# 1 Introduction

## 1.1 Introduction

## 1.2 Overview

1.2.1 This Appendix of the Environmental Statement (ES) has been prepared by RPS on behalf of Photovolt Development Partners GmbH. (PVDP) for the Applicant, SolarFive Ltd. (SolarFive).

1.2.2 The purpose of this technical report is to present the methodology and results of the hazel dormouse *Muscardinus avellanarius* surveys for the Project. The results of this report have been used to inform Chapter 9: Ecology and Nature Conservation in Volume 1 of the ES [EN010147/APP/6.3].

## 1.3 Legislation

1.3.1 Hazel dormouse *Muscardinus avellanarius* is fully protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). The Regulations prohibit:

- Intentionally, recklessly or deliberately kill, injure or take a dormouse;
- The deliberate disturbance of this species in such a way as to be significantly likely to affect:
  - Their ability of to survive, hibernate, migrate, breed, or rear or nurture their young;
  - The local distribution or abundance of dormice;
  - Damage or destruction of a breeding site or resting place (nest); and
- The possession or transport of dormice or any other part of.

1.3.2 Dormice are also protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion in Schedule 5. Under the Act, they are protected from:

- Intentional or reckless disturbance (at any level);
- Obstruction of access to any place of shelter, breeding or rest; and
- Selling, bartering or exchange of these species, or parts of.

1.3.3 Dormice are also listed on Section 41 of the NERC Act 2006 as a Species of Principal Importance; national objectives & targets include the maintenance of the geographical range and viability of existing dormice populations to ensure that it remains in favourable conservation status.

## 2 Methodology

### 2.1 Desk Study

2.1.1 A data request was submitted to Thames Valley Environmental Records Centre (TVERC) for records of protected species including dormice within 2 km of the Project site as part of the ecology desk study. The full results of the desk study are presented in Chapter 9 Appendix 9.1: Desk Study [EN010147/APP/6.5]. The results of the desk study pertaining to dormice are presented in this report.

### 2.2 Field Survey

#### Study area

2.2.1 The dormouse survey focused on hedgerows that had been identified as being impacted during the development of the Project design. The survey areas are shown alongside the results of the survey in Annex A.

#### Nest tube survey

2.2.2 The nest tube survey was undertaken following a methodology based on published best practice guidelines (Bright, Morris & Mitchell Jones 2006; Chanin & Woods 2003).

2.2.3 The guidelines provide a method to determine survey effort and provide recommendations for what would constitute the minimum acceptable survey effort. Under best practice guidelines, the months April through November are each allotted an index of probability reflecting the likelihood of a survey detecting dormouse in that month. The values of the index of probability are given in Table 2.2.1.

**Table 2.2.1 Index of probability scores.**

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

- 2.2.4 The published guidelines recommend spacing nest tubes approximately 20 m apart wherever practical and using a minimum of 50 nest tubes per site (Chanin & Woods 2003).
- 2.2.5 One thousand two hundred and seventy-six nest tubes were deployed across the survey areas. Circa 500 were deployed at the beginning of May 2024 with a first check at the end of May. The remaining tubes were deployed towards the end of May with a first check in June.
- 2.2.6 The survey effort was assessed based on the entire survey area. The nest tubes were spaced out evenly in suitable hedgerow habitat.
- 2.2.7 The survey effort is calculated by summing the relevant probability scores set for each month assuming the use of 50 nest tubes as a standard. A survey effort score of 20 is considered to be the minimum requirement to determine the likely absence of dormouse.
- 2.2.8 Following the above method, a minimum survey effort score of 20 was achieved for the nest tubes checked between May and September inclusive. For the remaining tubes, surveys will continue in April and May 2025 to achieve a full 20 points.
- 2.2.9 The nest tubes used were based on the standard design described in the published guidelines and as recommended by the mammal society and were set following the methodology described by Chanin and Woods (2003).
- 2.2.10 Nest tubes were checked in dry conditions for any signs of dormouse occupation at intervals of 3-4 weeks during the survey period. The locations of the nest tubes and nest boxes are shown in Annex B.

## 2.3 Limitations

- 2.3.1 The nest tubes deployed in June have not, to date, had a survey that scores the full 20 points necessary. However, the work to date has identified the presence of dormice within the Project site. Therefore, given the very low density that this species occurs at within hedgerows, it is probably that dormice occur within the remaining hedgerows on site.

## 3 Results

### 3.1 Desk study

- 3.1.1 The desk study identified five records of dormice within the study area. Of these, one was from within the Project site within woodland south of Woodstock within the cable corridor.

### 3.2 Nest tube survey

- 3.2.1 No signs of dormouse were found in any of the nest tubes placed in the boundary hedges during May, June, and July.
- 3.2.2 Dormice were encountered in tubes 413, and 453 during the August survey and nests were found in tubes 413, 453, and 492 during the September survey (Annex A), all within the Central Site Area.

3.2.3 The results of the nest tube survey are summarised in Table 3.2.1. The figures in the table show the number of nest tubes / boxes in which new signs of dormice were identified for each month (i.e. signs that were not present in that tube the previous month). Cumulative totals are given in parentheses. Weather conditions are provided in Annex B.

**Table 3.2.1. Summary of nest tube survey**

Month	Findings
May	Nothing
June	Nothing
July	Nothing
August	2 dormice sighted
September	3 dormouse nests

## 4 Summary

- 4.1.1 The desk study (see Appendix 9.1: Desk Study [EN010147/APP/6.5]) identified five records of dormouse within 2 km of the Project site including one record within the Project site boundary.
- 4.1.2 A nest tube survey to identify presence/likely absence of dormouse on the Project site was undertaken between May and September 2024.
- 4.1.3 The survey identified the presence of dormice within the Central Site Area.
- 4.1.4 The nest tubes deployed in June have not, to date, had a survey that scores the full 20 points necessary. However, the work to date has identified the presence of dormice within the Project site. Therefore, given the very low density that this species occurs at within hedgerows, it is probably that dormice occur within the remaining hedgerows on site.
- 4.1.5 Surveys will continue through October to November 2024 and April to May 2025 to ensure that the full site has achieved 20 points and to inform any protected species licence necessary.



## 4.2 References

Bright, P. Morris, P. & Mitchell-Jones, T. (2006). The dormouse Conservation Handbook 2nd Ed. *English Nature (Natural England)*

Chanin, P. & Woods, M. (2003). Surveying Dormice using nest tubes. Results and experiences from the South West Dormouse Project. *English Nature (Natural England) Research Report No. 524.*

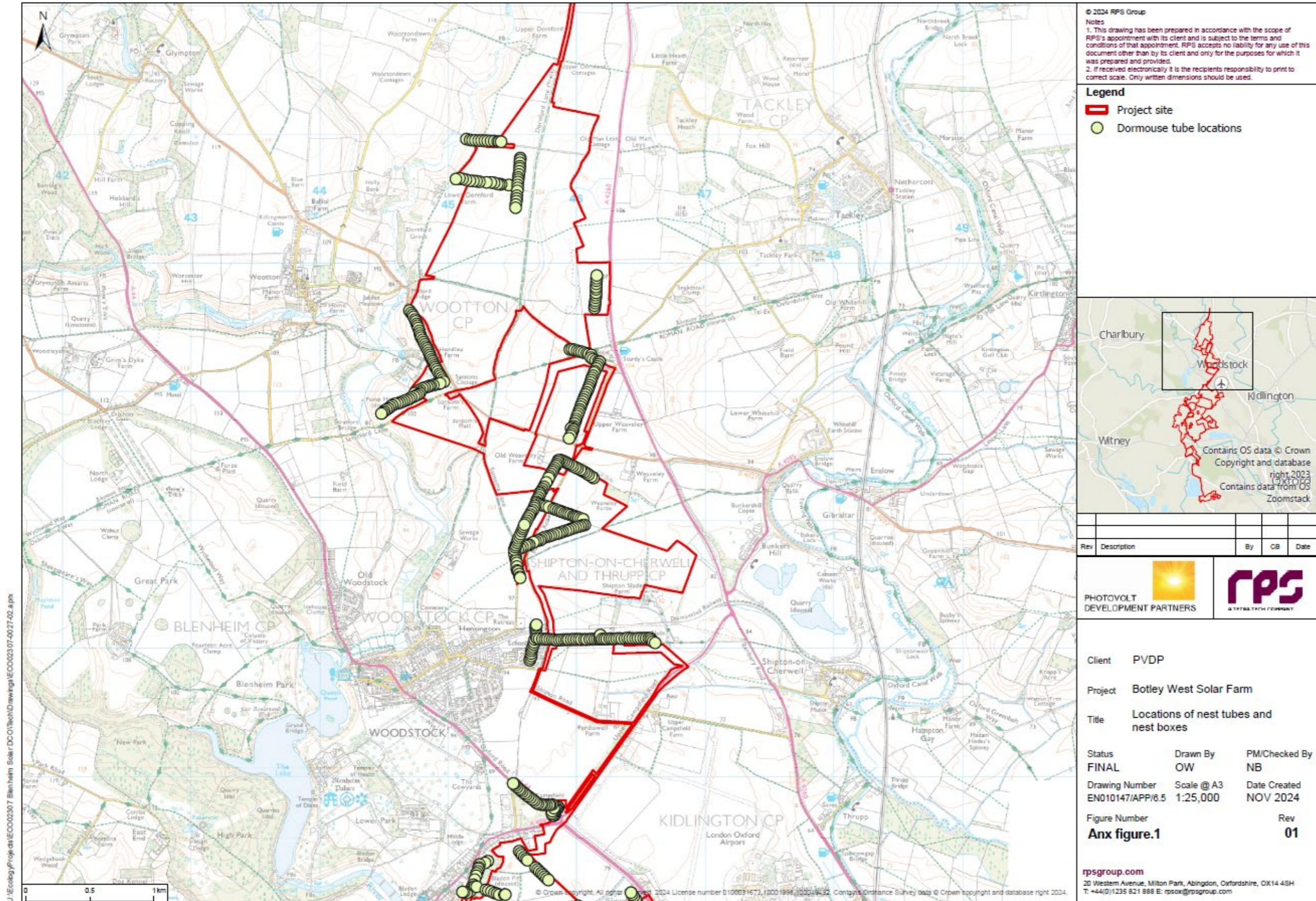
Morris, P (2004). Dormice. *Whittet Books Ltd.*

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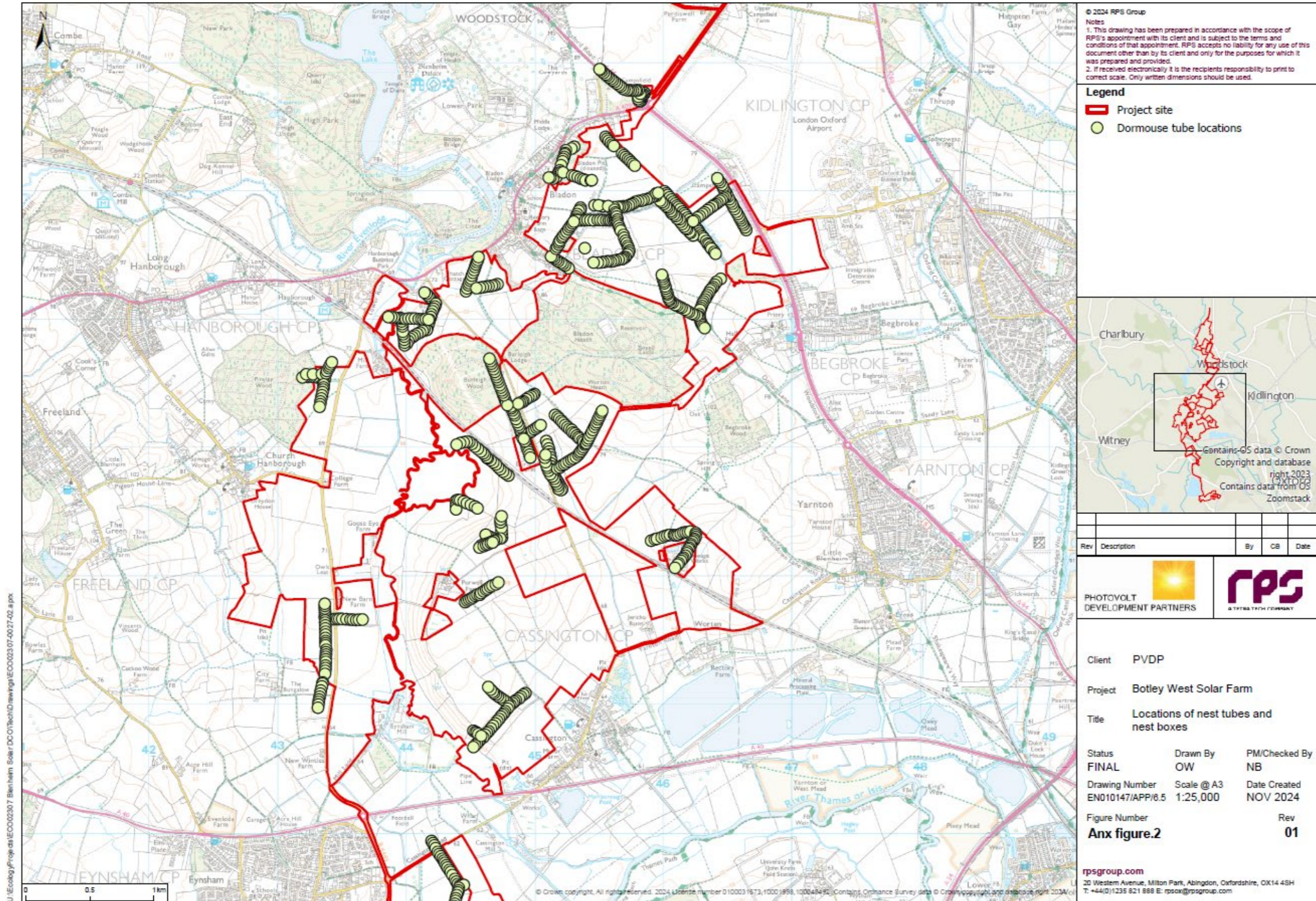
# Annex A

## Survey Areas and Results

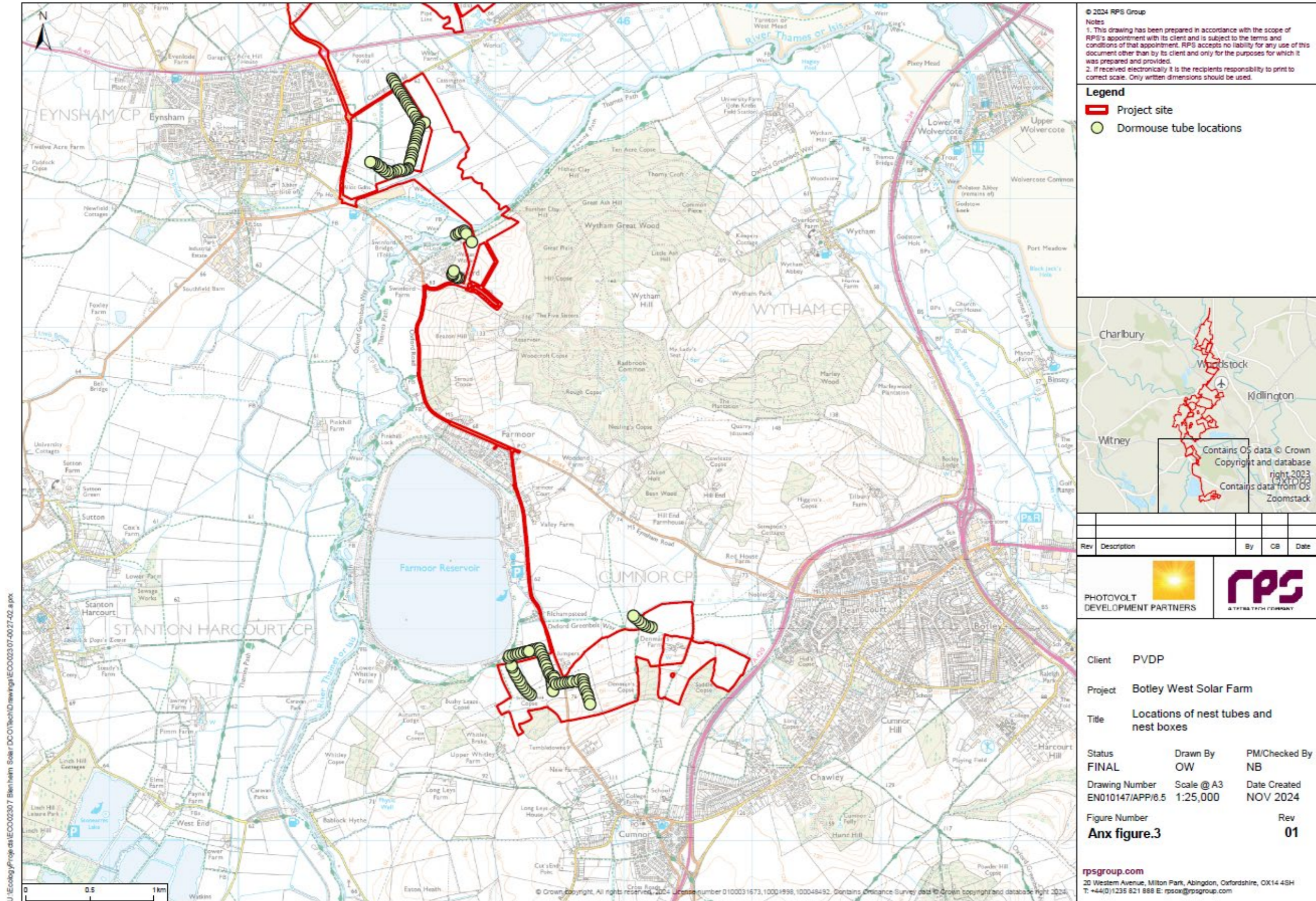
Anx Figure 1 Dormouse nest tube locations Northern Site Area.



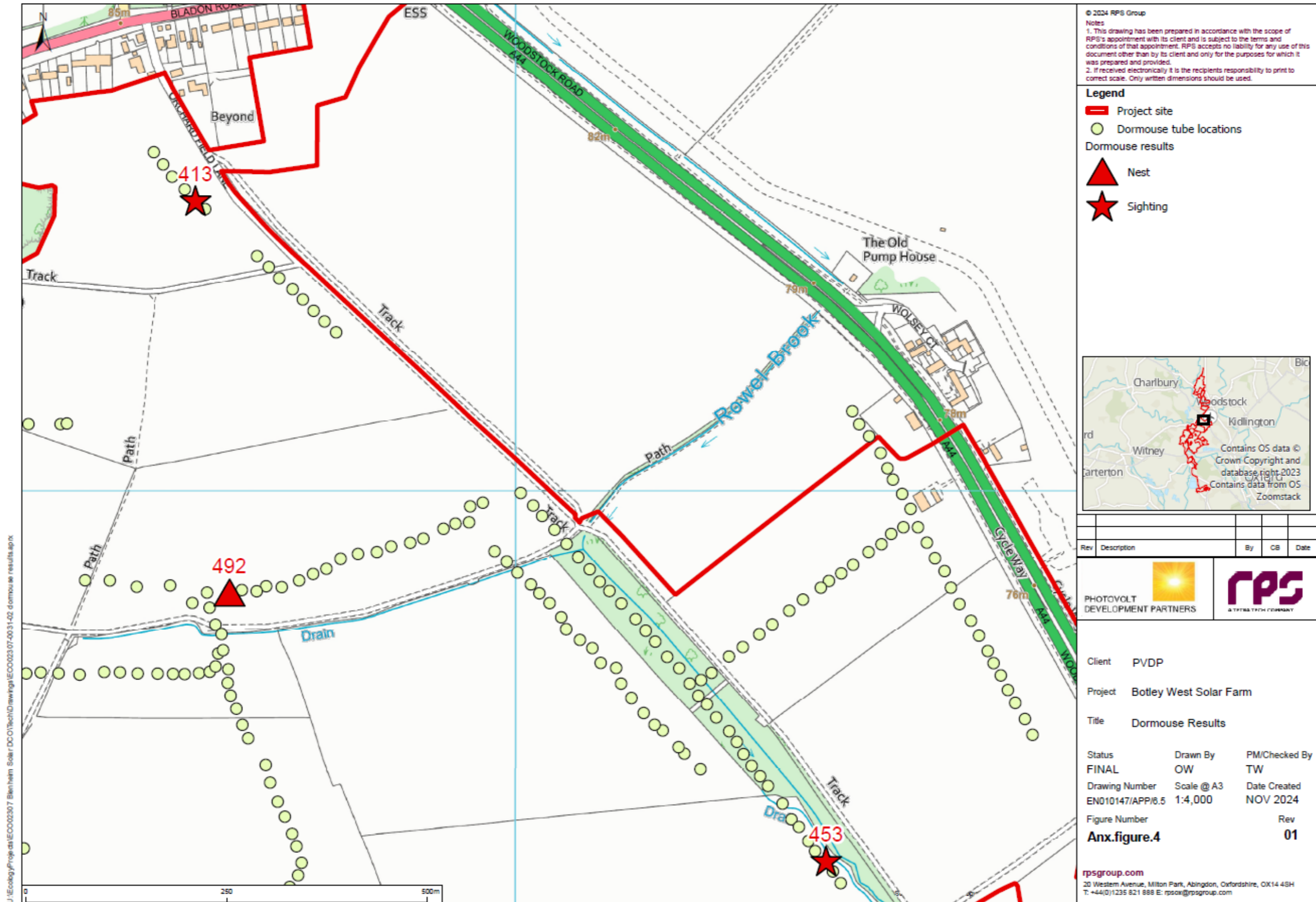
Anx Figure 2 Dormouse nest tube locations Central Site Area.



Anx Figure 3 Dormouse nest tube locations Southern Site Area.



Anx Figure 4 Dormouse survey results



### Survey dates and weather conditions

**Anx Table 1 Survey dates and weather conditions.**

Date	Time	Temp start	Temp finish	Weather conditions
27.05.2024	08:30 – 19:30	16°C	16°C	40-10% cloud, wind 3/8, some light rain toward the end
09.06.2024	08:00 – 20:15	16°C	16°C	50-100% cloud, wind 2/8, no rain
10.06.2024	08:00 – 21:00	16°C	18°C	10-100% cloud, wind 2/8, rain for the last hour – most of the day clear
28.07.2024	08:00 – 21:10	22°C	24°C	10-30% cloud, wind 2/8, no rain
29.07.2024	07:30 – 20:00	25°C	25°C	10-100% cloud, wind 2/8, no rain
28.08.2024	08:00 – 16:10	24°C	23°C	10-20% cloud, wind 2/8, no rain
29.08.2024	07:30 – 17:00	20°C	21°C	50-100% cloud, wind 2/8, no rain
30.08.2024	07:30 – 15:50	25°C	21°C	10-100% cloud, wind 2/8, no rain
19.09.2024	08:00 – 16:30	21°C	23°C	40-60% cloud, wind 2/8, no rain
20.09.2024	08:30 – 16:00	20°C	19°C	50-100% cloud, wind 2/8, no rain
21.09.2024	07:30 – 16:40	20°C	21°C	50-100% cloud, wind 2/8, no rain