DORMOUSE SURVEY REPORT
Flemingston
St Athan
Vale of Glamorgan

Central Grid Reference ST0115969632

On Behalf of Edenstone Homes

November 2016

TerrAqua Ecological Services Ltd

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1 Introduction

1.1 Survey Brief

TerrAqua Ecological Services Ltd were commissioned by Edenstone Homes to undertake an assessment of all hedgerows and scrub a parcel of land at Flemingston, St Athan, Vale of Glamorgan, approximate central grid reference ST 0115969632 in order to ascertain their importance, if any, to Dormouse (*Muscardinus avellanarius*). The survey boundary was taken as that supplied by Mr Richard Kelso acting on behalf of Edenstone Homes.

The potential for the site to support dormouse was identified during the extended Phase I Habitat Survey of the site undertaken in June/July 2016 (TerrAqua ecological Services). This report sets out the Interim (July-November 2016) results of the survey undertaken to assess the presence or otherwise of the species within the site boundary.

1.2 Client Details

The survey was undertaken on behalf of Edenstone Homes, Priory House, Priory Street, Usk NP115 1BJ following instructions to proceed by Mr Richard Kelso acting for Edenstone Homes.

1.3 Background

The survey was commissioned by the client prior to the submission of a planning application for the development of the above site following recommendations made in the Extended Phase I Habitat survey undertaken by TerrAqua Ecological Services Ltd.

The site lies in a semi-rural location on the outskirts of the village of St Athan within the Vale of Glamorgan. The proposed development site comprises two large fields of agricultural grassland bordered to the north, east, west and south by mature un-managed hedgerows. The site also includes an adjacent parcel of land referred to as Annington land which contains a small area of scrub and areas of highly managed amenity grassland. The site has a general south west aspect and moderate slope. To the north and east the site lies adjacent to agricultural land and associated hedgerow system, to the south lies the developed area of St Athan.

Hedgerows are recognised as being important wildlife habitats in their own right providing suitable habitats for over 47 species of conservation concern within the UK. Hedgerows are particularly recognised as being of importance to birds, butterflies, moths, bats, dormouse and both amphibian and reptile species. Hedgerows also form important wildlife corridors allowing species to disperse and move throughout the countryside to other favourable habitats.

A total of eight hedgerows within the proposed development area of the site have been assessed as being composed of primarily native species suitable for use by dormouse (TerrAqua Ecological Services, 2016).

2 Survey Methodology

2.1 General

The Dormouse survey will be undertaken between July 2016 and May 2017 inclusive. To date the survey has run since July 2016 when all dormouse tubes were installed, with four subsequent checks for evidence of dormouse in August, September, October and November 2016. The survey was carried out by Carmen Jones MIEEM and Dyfrig Jones licensed by Natural Resources Wales to undertake dormouse work, Licence Number 52740:OTH:SA2014.

The survey was undertaken using a nest tube methodology. Nest tubes were installed in habitats previously assessed as being suitable for colonisation by dormice as previously reported following the Extended Phase I Habitat Survey of the site.

2.2 Nest Tube Location and Distribution

In keeping with guidance for effective survey methodology as recommended by Natural England (English Nature, 2006) nest tubes were positioned at a minimum of twenty metre intervals within all of the mature hedgerows as shown in Phase I Habitat Map (Appendix I). The tubes were positioned at varying heights throughout the hedgerows. In total of ninety six (96) nest tubes were installed across the site. The number of tubes installed in each habitat is shown in table 1.

Table 1 Location and Number of Nest Tubes installed

Tube Location	Number Tubes
Hedgerow 1	14
Hedgerow 2	13
Hedgerow 3	10
Hedgerow 4	11
Hedgerow 5	15
Hedgerow 6	13
Hedgerow 7	5
Hedgerow 8	Outside Development Area No Survey
Hedgerow 9	5
Scrub Areas	10

2.3 Nest Tube Survey

Each of the nest tubes was checked on a monthly basis between July and November 2016 inclusive (and will be checked in April and May 2017). Each nest tube was surveyed in sequence. Where visible checks revealed no evidence of mammal activity no further

examination of the tube was made. Where initial observations indicated the presence of bedding material the tube was blocked using cloth plug to prevent the escape of any animals present. The tube was then removed from its position and placed inside a clear plastic bag. The plug was then removed and the tube slid open to allow the contents of the tube to be revealed. Any animals found were weighed and their sex recorded. All animals were then replaced in the tube and the tube replaced at its original location.

Each round of survey was completed within a single day to ensure that no double counting of individuals would occur.

2.4 Index of Probability

The dormouse conservation handbook (Natural England, 2006) provides an index of probability for the presence or otherwise of a dormouse based upon a minimum survey effort. A scoring system, using points awarded for survey effort within the months dormouse are known to be active, can be used to establish appropriate levels of survey effort. A score of twenty indicating a reasonable survey effort has been achieved. Scores for the index of probability are given in table 2.

Table 2 Index of Probability

Survey Month	Index of Probability
March	0
April	1
May	4
June	2
July	2
August	5
September	7
October	2
November	2
December	0
January	0
February	0

Using a minimum of fifty nest tubes (actual number 96) and assuming the survey is conducted over the full survey period a total score of twenty five is obtained. The score achieved will be reduced if less than fifty tubes are used, however the overall score cannot be increased if, more than fifty tubes are used for the survey.

Using the above methodology a **total score of fifteen (15)** has currently been reached. On completion of the survey May 2017 a score of Twenty One (21) will have been reached for the St Athan development site confirming the appropriate survey effort will have been achieved.

2.5 Nut Search

In addition to the use of nest tubes a search was also made of any hedgerows and woodland for any nuts showing characteristic field signs indicating that dormouse had been feeding in these areas. Woodland areas were searched at a standard rate of 20mins per 10x10m square while hedgerows were searched at a rate of a 100m length in 20mins. This methodology is recognised by Natural England as an effective way to survey for dormouse (Bright, Mitchell & Morris, 1994).

2.6 Data Search

A search was made of available records including a search undertaken by the South East Wales Biodiversity Records Centre (SEWBReC) as released under data search request for Aberthin Phase I survey 2016, and those held by the National Biodiversity Online Gateway (NBN) in order to ascertain the distribution of the dormouse within the general locality of the proposed development site.

3 Results

3.1 Survey Results

To date (November 2016) no evidence of dormouse activity was recorded within any of the habitats subject to survey. This included evidence collected from the examination of the nest tubes, and searches for old nuts showing characteristic signs of consumption by dormouse.

3.2 Data Search

No recent records of dormouse were found for any location with the site boundary or any immediately adjacent habitat.

No records were found for dormice within a 1.5km radius of the site.

4 Conclusions

No full conclusions can as yet be drawn due to the continuing survey which will extend into spring (April and May) 2017. However no evidence of dormouse activity has been recorded during the four months of survey effort to date.

5 Recommendations

To be advised when the survey has been completed

References

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South East Wales Biodiversity Records Centre (SEWBReC) Data search January 2016 St Athan

Natural Resource Wales Website www.nrw.gov.uk designated sites accessed 5/02/2016

Appendix I

Map Showing Habitats Present and ID Numbers of Surveyed Hedgerows (Red Boundary)

TerrAqua Ecological Services Ltd

Client & Project: Edenstone Homes;
St Athans

Drawing: Ecological Assessment;
June 2016

Legend:

- Development Site Boundary
- Mitigation Site Boundary
- **A** Arable Field
- **I** Improved Grassland Field
- **F1 - F5** Field Numbers
- Hedgerow (Species Rich)
- **H1 - H11** Hedgerow Numbers
- **TN1** Target Note
- Woodland
- Stream (Direction of Flow)
- Scrub
- Building

TN5
H11
A
F4
I
F5
TN4
H10
TN3
I
F3
H8
H9
TN2
H3
H6
H7
H2
S1
I
F2
I
F1
H4
H2
TN1
H5
H1