

ECOLOGY MITIGATION AND ENHANCEMENT STRATEGY

Ford Lane, Yapton, West Sussex

ECO00395_872
Ford Lane, Yapton
1
28 October 2020

rpsgroup.com

REPORT

Document status					
Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
1	Planning	Georgia Kelly/ Rosie Nicoll	Nicholas Betson		

Approval for issue					

© Copyright RPS Group Plc. All rights reserved.

The report has been prepared for the exclusive use of our client and unless otherwise agreed in writing by RPS Group Plc, any of its subsidiaries, or a related entity (collectively 'RPS'), no other party may use, make use of, or rely on the contents of this report. The report has been compiled using the resources agreed with the client and in accordance with the scope of work agreed with the client. No liability is accepted by RPS for any use of this report, other than the purpose for which it was prepared. The report does not account for any changes relating to the subject matter of the report, or any legislative or regulatory changes that have occurred since the report was produced and that may affect the report. RPS does not accept any responsibility or liability for loss whatsoever to any third party caused by, related to or arising out of any use or reliance on the report.

RPS accepts no responsibility for any documents or information supplied to RPS by others and no legal liability arising from the use by others of opinions or data contained in this report. It is expressly stated that no independent verification of any documents or information supplied by others has been made. RPS has used reasonable skill, care and diligence in compiling this report and no warranty is provided as to the report's accuracy. No part of this report may be copied or reproduced, by any means, without the prior written consent of RPS.

Prepared by: RPS Georgia Kelly BSc Consultant Ecologist 260 Park Avenue, Aztec West, Almondsbury, Bristol, South Gloucestershire BS32 4SY	Prepared for: Redrow Homes Craige Burden Head of Planning Redrow House Unit 1, Faraday Office Park, Basingstoke, Hampshire, RG24 8OB
---	--

Contents

1	INTRODUCTION	2
1.1	Purpose and scope of this report	2
1.2	Site Description	2
1.3	Background	2
2	ECOLOGY RECEPTORS	3
2.2	Bats	Error! Bookmark not defined.
2.3	Badgers	Error! Bookmark not defined.
2.4	Reptiles	Error! Bookmark not defined.
2.5	Nesting Birds	3
3	PROTECTION AND MITIGATION MEASURES	4
3.1	Habitat Protection	4
3.2	Lighting	4
3.3	Badgers	Error! Bookmark not defined.
3.4	Reptiles	5
3.5	Nesting Birds	4
3.6	Bats	Error! Bookmark not defined.
4	ECOLOGICAL ENHANCEMENT	6
4.1	Habitats	6
4.2	Bat and Bird Boxes	6
4.3	Hedgehogs	7
5	IMPLEMENTATION	8
	REFERENCES	9

1 INTRODUCTION

1.1 Purpose and scope of this report

- 1.1.1 RPS was commissioned by Redrow Homes to prepare an Ecology Mitigation and Enhancement Strategy (EMES) for the residential development at Ford Lane, Yapton, West Sussex.
- 1.1.2 The report has been prepared in relation to Condition 17 of outline planning permission granted at appeal (APP/C3810/W/17/3170059), which states that:
- The development hereby permitted shall be carried out in accordance with the recommendations set out in the Extended Phase 1 Habitat Survey prepared by Corylus Ecology and submitted with the planning application. This shall include updates to the existing Phase 1 Habitat Survey and any necessary protected species surveys undertaken no less than 12 months prior to the commencement of development and measures to avoid or mitigate ecological impacts and provide ecological enhancements. Details shall be submitted to the LPA and approved in writing prior to the commencement of development.*
- 1.1.3 The report specifically sets out updated survey work undertaken during 2020 and the mitigation measures that will be employed to avoid construction-phase impacts on retained habitats and species and safeguard the biodiversity interests.
- 1.1.4 The report also details the ecological enhancements that will be provided as part of the development.

1.2 Site Description

- 1.2.1 The development is approximately 6.71 ha in size situated immediately east of Ford Lane, to the north-east of the village of Yapton, West Sussex.
- 1.2.2 The site comprises a semi-improved field in the majority, along with ruderal vegetation field margins, scattered trees and species-poor hedgerows. The immediate surrounds to the north, east and west are rural, comprising further expanses of arable fields, whilst the main town of Yapton lies to the south.

1.3 Background

- 1.3.1 The site was subject to a Preliminary Ecological Appraisal (PEA) by Corylus Ecology in 2013 to inform the outline planning permission (Corylus Ecology 2013). This included a Phase 1 Habitat Survey and protected species scoping survey. No habitat that could support protected species was identified on site and, as such, no further work was undertaken.
- 1.3.2 RPS was commissioned by Redrow Homes to update the PEA in October 2020.

2 ECOLOGY RECEPTORS

- 2.1.1 The Ecological Appraisal was undertaken on the 18th October 2020, by a suitably qualified ecologist, Jay Allen ACIEEM, to ensure that the work undertaken to inform the outline permission (Corylus Ecology 2013) was still relevant with respect to the recommendations made in the report, as required by Condition 17.
- 2.1.2 The key features within the site were broadly similar to those found in 2013 and comprised:
- Arable land across much of the site;
 - Areas of semi-improved grassland around the boundaries; and
 - Hedgerows and scattered mature trees.
- 2.1.3 The arable land had been left fallow across the site since the previous crop had been harvested. A range of various grass and herb species had started to colonise.

2.2 Nesting Birds

- 2.2.1 The scattered trees and species-poor hedgerows on site offer suitable nesting opportunities for a range of common bird species.

2.3 Reptiles

- 2.3.1 The small areas of semi-improved grassland offered some suitable habitat for common species of reptiles but were considered too small and disconnected from surrounding habitat to be of significant benefit. The arable land was not currently suitable for reptiles, being too short/patchy in its development. However, given time, it may become suitable.

2.4 Bats

- 2.4.1 All of the trees on site were assessed for their suitability to support roosting bats, with several along the eastern boundary found to be of low roosting suitability. However, these are to be retained within the development of the site, and so no further work is considered necessary.

3 PROTECTION AND MITIGATION MEASURES

3.1 Habitat Protection

- 3.1.1 Best practice general environmental protection measures will be employed throughout construction to minimise potential risks and to react to any incidents that could result in environmental damage.
- 3.1.2 Retained habitat at the boundaries of the site will also be subject to protection through the installation and maintenance of fencing to prevent indirect damage or disturbance.
- 3.1.3 The layout has been designed to protect retained individual trees and their root systems. All site materials will be stored outside of the Root Protection Areas of all retained trees/ hedgerows. No construction activities related to the development will be carried out within Root Protection Areas (RPAs).

3.2 Lighting

- 3.2.1 In order to protect the context of the boundary hedgerows and trees, the lighting scheme for the final development will adopt the following parameters set out in the guidelines published by the Institute of Lighting Engineers (ILP, 2018).
- 3.2.2 Lighting will be installed where it is strictly needed for safety, and as low as guidelines permit.
- 3.2.3 The design will avoid the backlighting of boundary habitats and upward light spill through appropriate lighting specifications, the positioning of columns and angling of lighting units. Where possible LED lamps in the warm white spectrum (2700K to 3000K) will be used.
- 3.2.4 If essential lighting is needed near trees for safety, the lighting units will be positioned to avoid light spill on the tree and ensure that the trunks remain completely unlit.
- 3.2.5 The establishment of dark corridors on the boundaries of the completed residential development will maintain their ecological integrity as wildlife corridors and avoid any decline in their value for faunal species including foraging bats and nesting birds.

3.3 Nesting Birds

- 3.3.1 All active bird nests will be protected during site clearance and construction activities. Protective fencing will be installed between the boundary hedgerows and the construction areas to protect any nests from damage.
- 3.3.2 During the main bird nesting season (March 1st to August 31st inclusive) clearance of any boundary vegetation with the potential to support nesting birds (including long grass and tall herb) will be subject to pre-clearance nesting bird checks by an ECoW no more than 48hrs prior to removal.
- 3.3.3 Nests and the activity of adults indicating the presence of a nest would be searched for in the area of clearance. Where the vegetation is too dense to confirm the absence of a nest, the ECoW will direct the site staff to carefully cut back the vegetation in stages to enable a comprehensive inspection.
- 3.3.4 Where checks by the ECoW have confirmed the absence of nests, the vegetation would be cut down to ground level within 24 hours. Should an active nest be encountered, the nest must be left undisturbed. The ECoW will define an exclusion zone around active nests, using line marker paint and / or barrier tape. No works will be permitted within the exclusion zone until the ECoW confirms the nest is no longer in use.

3.4 Reptiles

3.4.1 Vegetation clearance would be undertaken at a time of the year when amphibians are active (i.e. between March to October, depending on local weather conditions) and during suitable weather conditions for them to be mobile (i.e. reasonably warm with no rain). It should follow the following methodology:

1. Vegetation would be hand strimmed under the supervision of an ecological clerk of works (ECoW) to an initial height of approximately 15 cm. It would be strimmed directionally, towards retained habitat (i.e. site boundaries hedgerows, and the retained area to the east) to encourage any reptiles present to move out of the way of the cut, towards retained habitat. A second cut to ground-level would be taken at least 24 hours later to provide time for animals to move away from the works area.
2. Following strimming, a destructive search of all suitable reptile habitat would take place. This would comprise the careful excavation of features using a wide-toothed digger bucket that would gently lift the features under the guidance of an appropriately experienced ECoW, who would be present to capture any reptiles disturbed by the process and relocate them to suitable retained habitat around the boundaries of the site.
3. Two hibernacula would be built within retained areas of grassland associated with hedgerows and open space area on site, to provide hibernation opportunities for reptiles (and amphibians). The hibernacula would comprise a stacked pile of variable-diameter woody material, approximately 4 m in length, with loose topsoil and turf on top.

4 ECOLOGICAL ENHANCEMENT

4.1 Habitats

- 4.1.1 The development will include a range of habitats of wildlife value, including boundary hedgerows, gardens, trees and landscaped grassland.
- 4.1.2 The landscaping scheme will use native tree and hedgerow species. Night-scented flowering plants will be included to encourage foraging bats to use the site, post-development.
- 4.1.3 Although outside the control of Redrow Homes, once the properties are occupied, the residents will develop a range of garden types. Flowering plants will benefit invertebrate diversity and abundance and provide enhancement compared to the existing site. The popularity of wildlife friendly gardening should increase the proportion of new residents that incorporate features of value for wildlife.

Management

- 4.1.4 Hedgerows will be subject to cutting back annually or bi-annually in October to maintain a dense structure to the base. The hedgerows will be cut with a bladed tractor mounted cutter (or equivalent) and will not be flailed.
- 4.1.5 Any tree, scrub and hedgerow management carried out during the bird breeding season (March to August inclusive) will be subject to pre-works inspections by a suitably qualified ecologist and any active nests protected.
- 4.1.6 The retained mature trees have high biodiversity value in the context of the site, typically supporting a diverse assemblage of species. The trees will be allowed to continue to mature. Deadwood features will be retained where there are no significant for the health and safety issues. Crown reduction or thinning would be a last resort measure where there are no other options to avoid unnecessarily impacts on species and biodiversity. The status and health of the mature trees will be subject to periodic review. Should surgery become unavoidable due to tree health or stability; the tree would be subject to pre-works bat/nesting bird survey by a suitably qualified ecologist. Appropriate actions would be taken to ensure compliance of the proposed with wildlife legislation and all surgery would be completed in accordance with BS:3998.

4.2 Bat and Bird Boxes

Bats

- 4.2.1 In total, four bat boxes suitable for use as nursery or summer roosts by small crevice dwelling bat species will be incorporated into selected residential properties. The indicative positions of the bat boxes on new buildings are shown on Figure 2. The tubes will be installed where there are short flight line connections to suitable habitat.
- 4.2.2 Schwegler 1FR bat boxes, or an equivalent alternative design, providing the same internal conditions would be used. Each bat box will be installed flush with the wall or beneath a rendered surface at over 3m above ground level and in a location that will be unlit from artificial lighting.

Birds

- 4.2.3 Four bird boxes will be installed on residential properties throughout the development. The boxes will be a combination of Schwegler 1A, 1SP, 9a or equivalent suitable for small garden birds such as sparrows, swifts or house martins.

-
- 4.2.4 The indicative positions are shown on Figure 2. The boxes will be installed onto the wall or built into the brickwork directly underneath the roofline or eaves on the north or west facing elevations with good connectivity to surrounding habitat.
- 4.2.5 In addition, two Schwegler 1B bird boxes will be installed on trees close to the development boundaries. The boxes will be placed on at least 3m above ground level on the eastern or western side of the trunk.

4.3 Hedgehogs

- 4.3.1 The residential gardens will be potential habitat for hedgehogs, a species of principal importance with a rapidly declining UK population.
- 4.3.2 To ensure the majority of new residential gardens are accessible to hedgehogs, small 100x100 mm gaps will be created in the base of solid fence lines dividing gardens.
- 4.3.3 The indicative positions of the hedgehog access gaps are shown in Figure 2 with the lines on the plan defining the gardens that will be connected via these gaps. Gardens bounded by hedgerows would remain accessible to hedgehogs.
- 4.3.4 Adult hedgehogs typically require large home ranges and the proposed access gaps in the fences will ensure that individual hedgehogs can move throughout the site, significantly increasing the availability of food and shelter in the occupied residential development.
- 4.3.5 Two hibernacula would be built within retained areas of grassland associated with hedgerows and open space area on site, to provide hibernation opportunities for hedgehogs.

5 IMPLEMENTATION

- 5.1.1 Redrow Homes will be responsible for the delivery and implementation of the mitigation and enhancement measures specified in this report.
- 5.1.2 Redrow Homes will instruct an ECoW to support with the implementation of measures requiring specialist supervision as defined in the EMES.
- 5.1.3 The site contractor team will document and photograph the implementation of the mitigation and enhancement measures in a simple log maintained during the construction of the site supported by photographs. The ecological clerk of works will provide Redrow Homes with details of all works undertaken under their supervision.

REFERENCES

Collins J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd ed.). London: The Bat Conservation Trust.

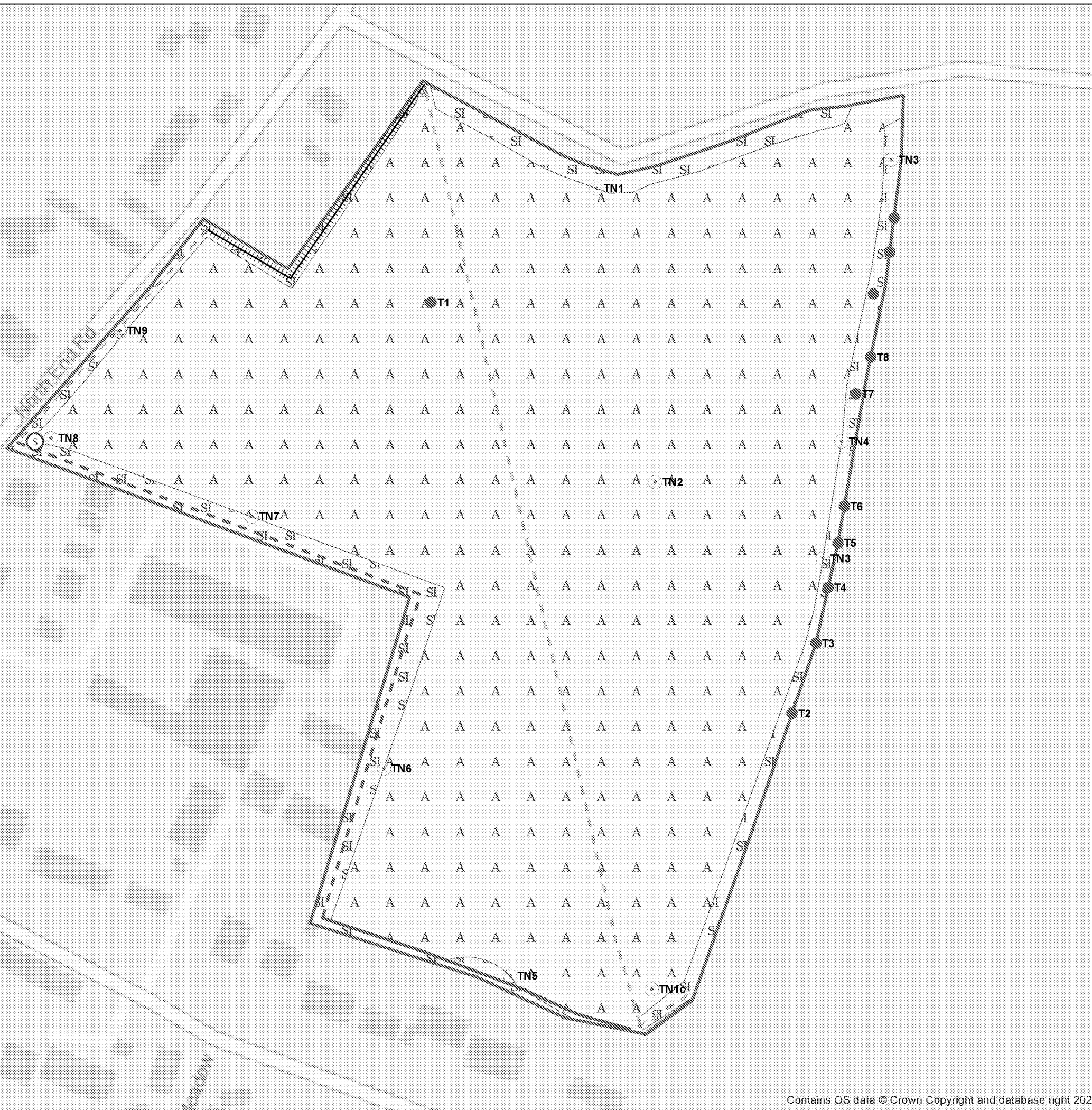
Corylus Ecology (2013) Land at Yapton, West Sussex, Extended Phase 1 Habitat Survey. Corylus Ecology, unpublished report.

Froglife (1999). Froglife Advice Sheet 10. *Reptile Survey: An Introduction to Planning, Conducting and interpreting surveys for snake and lizard conservation*. Froglife, Peterborough.

Gent, T. & Gibson, S. (eds). 2003. Herpetofauna Workers' Manual (revised reprint), JNCC, Peterborough, ISBN 1 86107 450 6.

Institute of Lighting Professionals (2018). Guidance Note 08/18. Bats and Artificial lighting in the UK. Bats and the Built Environment Series.

Joint Nature Conservation Committee (Gent, T & Gibson, S. Eds) (1998). The Herpetofauna Worker's Manual. JNCC, Peterborough.



© 2020 RPS Group

Notes

1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.

2. If received electronically it is the recipient's responsibility to print to correct scale. Only written dimensions should be used.

- Application boundary
- Arable
- Poor semi-improved grassland
- Defunct hedge - species-poor
- Dry ditch
- Fence
- Intact hedge - species-poor
- Spoil heap (1)
- Scattered tree - broadleaved (11)
- Target note (11)

© Crown copyright, All rights reserved. 2020 License number 0100031673, 10001998, 100048492. Contains Ordnance Survey data © Crown copyright and database right 2020.

Rev	Description	By	CS	Date



Willow Mere House, Compass Point Business Park, Stocks Bridge Way,
St Ives, Cambridgeshire, PE27 5JL
T: +44(0)1480 486 335 E: rpscm@rpsgroup.com

Client Redrow

Project Ford Lane, Yapton

Title Phase 1 habitat map

Status Draft Drawn By RN PM/Checked By NB

Project Number ECO00395 Scale @ A3 1:1,500 Date Created 26/10/20

Figure Number 1 Rev -

rpsgroup.com

Contains OS data © Crown Copyright and database right 2020



© 2020 RPS Group

Notes

1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.

2. If received electronically it is the recipient's responsibility to print to correct scale. Only written dimensions should be used.

- Application boundary
- Small tree-mounted bird box (Schwegler 1B-2No.)
- Wall-mounted bird nest box (Schwegler 1A, 1SP, 9a or equivalent - 4No.)
- Wall-mounted bat box (4.2.2Schwegler 1FR bat boxes, or an equivalent)
- Approximate location for reptile hibernacula
- Approximate location for hedgehog gravel boards, type/design to be agreed with RPS ecologist
- Approximate location for hedgehog hibernacula

© Crown copyright, All rights reserved. 2020 License number 0100031673, 10001998, 100048492. Contains Ordnance Survey data © Crown copyright and database right 2020.

Rev	Description	By	CB	Date



MAKING
COMPLEX
EASY

Willow Mere House, Compass Point Business Park, Stocks Bridge Way,
St Ives, Cambridgeshire, PE27 5JL
T: +44(0)1480 466 335 E: rpscm@rpsgroup.com

Client Redrow

Project Ford Lane, Yapton

Title Habitat Enhancement Plan

Status	Drawn By	PM/Checked By
Draft	RN	NB
Project Number	Scale @ A3	Date Created
ECO00395	1:1,500	29/10/20
Figure Number		Rev
2		-

rpsgroup.com