



EXTENDED PHASE 1 ECOLOGICAL ASSESSMENT

LAND AT ROWAN OAK, OVER WALLOP, SO20 8LA

DRAFT REPORT

November 2023

Report conditions

<i>Report title</i>	Extended Phase 1 Ecological Assessment – Land at Rowan Oak, Over Wallop	
<i>Client</i>	Atlas Planning Group	
<i>Report status</i>	Draft	
<i>Survey date</i>	29 th September 2023	
<i>Written by</i>	Izabel Phillips	<i>Date</i> 30 th October 2023

Disclaimers

This report has been prepared by Phillips Ecology for the sole use of the client named above. Survey work, assessment, and report writing have been undertaken with all reasonable skill and care, and unless otherwise explicitly stated, is appropriate only for the work, scheme, or project brief provided by the client and intended purposes. The report may not be relied upon by any other party without the express agreement of the client and Phillips Ecology. No other warranty, expressed or implied, is made as to the professional advice included in this report.

Where data, drawings, plans or other technical information has been provided to Phillips Ecology for the purposes of preparation of this report, either by the client, their agents or other parties (including but not limited to biological data sets, laboratory results, and mapping), it has been assumed that the information is correct. No responsibility can be accepted by Phillips Ecology for inaccuracies in such data supplied by other parties.

No part of this report may be copied or duplicated without the express permission of Phillips Ecology and the client. Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work, under standard limitations of access to third party land and other limitations as described in the report.

It is the client's responsibility to note and comply as necessary with any recommendations made in this report, planning conditions derived from these, and any relevant licensing regimes. Phillips Ecology bears no responsibility for any failure to note and comply with legal requirements for works carried out by or in behalf of the client at the above site and for the project this report has been produced to support.

Executive Summary

- This extended phase 1 ecological assessment report has been prepared in order to support a planning application for the proposed development of two dwellings with parking and landscaping on the land at Rowan Oak, Over Wallop.
- An extended phase 1 ecological assessment of the application site was undertaken on the 30th September 2023 by Izabel Phillips of Phillips Ecology.
- The survey area comprised the entire site within the red line boundary. A data search extended to a 2km radius for statutory designated sites and priority habitats.
- The site is considered to support opportunities for protected and priority species including badger, breeding birds, foraging/commuting bats and reptiles.
- With the implementation of precautionary construction avoidance measures, impacts on protected and priority species will be avoided.
- The proposals present an opportunity to deliver biodiversity enhancements at a site level, and benefit wildlife in the wider area.

Contents

REPORT CONDITIONS	1
EXECUTIVE SUMMARY	2
1. INTRODUCTION	5
1.1 REPORT PURPOSE	5
1.2 DESCRIPTION OF PROPOSAL	5
1.3 REPORT CONTEXT	5
1.4 SCOPE OF ASSESSMENT	5
1.5 SURVEY AREA	5
1.6 LIMITATIONS	5
2. DATA SEARCH	6
2.1 METHODOLOGY	6
2.2 LIMITATIONS	6
2.3 RESULTS	6
2.3.1 <i>Statutory designated sites</i>	6
2.3.2 <i>Ancient woodlands</i>	6
2.3.3 <i>Priority habitats</i>	6
3. HABITATS	7
3.1 METHODOLOGY	7
3.2 LIMITATIONS	7
3.3 EXISTING RECORDS	7
3.4 RESULTS	7
3.4.1 <i>Improved grassland (B4)</i>	7
3.4.2 <i>Ephemeral/ short perennial (J1.3)</i>	8
3.4.3 <i>Boundaries</i>	8
3.5 ASSESSMENT	9
4. PROTECTED AND NOTABLE SPECIES ASSESSMENT	10
5. BATS	11
5.1 METHODOLOGY	11
5.2 LIMITATIONS	11
5.3 ASSESSMENT METHODOLOGY	11
5.4 RESULTS	12
5.5 ASSESSMENT	12
6. BADGERS	12
6.1 METHODOLOGY	12
6.2 LIMITATIONS	12
6.3 RESULTS	12
6.4 ASSESSMENT	12
7. DORMICE	12
7.1 METHODOLOGY	12
7.2 LIMITATIONS	13
7.3 RESULTS	13
7.4 ASSESSMENT	13
8. HEDGEHOGS	13
8.1 METHODOLOGY	13
8.2 LIMITATIONS	13
8.3 RESULTS	13
8.4 ASSESSMENT	13
9. REPTILES	14
9.1 METHODOLOGY	14
9.2 LIMITATIONS	14
9.3 RESULTS	14
9.4 ASSESSMENT	14
10. GREAT CRESTED NEWTS	14
10.1 METHODOLOGY	14
10.2 LIMITATIONS	14
10.3 RESULTS	15
10.4 ASSESSMENT	15
11. BREEDING BIRDS	15

11.1	METHODOLOGY	15
11.2	LIMITATIONS	15
11.3	RESULTS	15
11.4	ASSESSMENT.....	15
12.	DISCUSSION AND ASSESSMENT OF IMPACTS	17
12.1	RELEVANT LEGISLATION AND POLICY.....	17
12.2	DESIGNATED SITES	17
12.3	HABITATS	17
12.4	BATS	18
12.5	BADGERS	18
12.6	HAZEL DORMOUSE	18
12.7	HEDGEHOG.....	18
12.8	REPTILES	18
12.9	GREAT CRESTED NEWTS	18
12.10	BREEDING BIRDS.....	18
13.	REQUIREMENT FOR FURTHER SURVEYS.....	19
13.1	DESIGNATIONS	19
13.2	HABITATS	19
13.3	BATS	19
13.4	BADGERS	19
13.5	HAZEL DORMICE.....	19
13.6	HEDGEHOG.....	19
13.7	REPTILES	19
13.8	GREAT CRESTED NEWTS	19
13.9	BREEDING BIRDS.....	19
14.	MITIGATION RECOMMENDATIONS.....	20
14.1	BATS	20
14.2	BADGERS	20
14.3	HEDGEHOGS.....	20
14.4	REPTILES	20
15.	ENHANCEMENTS	21
16.	CONCLUSION	22
17.	REFERENCES.....	23
	APPENDIX 1 – PROPOSED SITE PLAN	24

1. Introduction

1.1 Report purpose

This report has been prepared in order to present the extended phase 1 ecological assessment undertaken for the proposed construction of two new dwellings with parking and landscaping on the land at Rowan Oak, Over Wallop, National Grid Reference SU 28629 39068.

1.2 Description of proposal

The current proposals are for the construction of two dwellings with parking and landscaping.

1.3 Report context

Atlas Planning Group are preparing a planning application for the proposed dwellings on the land at Rowan Oak, Over Wallop. Phillips Ecology have been instructed by the applicant to undertake this assessment.

1.4 Scope of assessment

An extended phase 1 ecological assessment was carried out on the 30th September 2023. The survey comprised a field survey and desktop study in order to identify notable or protected sites, habitats or species potentially affected by the proposal under consideration.

1.5 Survey area

The survey area comprised the entire site within the red line boundary. A data search extended to a 2km radius for statutory designated sites and priority habitats.

1.6 Limitations

Limitations which are specific to each phase of the assessment are provided in the relevant sections, below.

2. Data search

2.1 Methodology

A desk-based assessment was undertaken by Phillips Ecology on the 30th September 2023 with Multi-Agency Geographic Information for the Countryside (MAGIC). The MAGIC database was consulted for records of statutory designated sites and priority habitats for the application site and a 2km radius.

2.2 Limitations

The data search results are bound by the following statement contained within MAGICs general disclaimer: *“The materials contained on this website are of a general, informational, nature. We have used reasonable endeavours to ensure the accuracy and completeness of the contents of the pages on this site but the information does not constitute advice and must not be relied on as such”.*

2.3 Results

2.3.1 Statutory designated sites

No statutory designated sites were identified within 2km of the site, however, the application site does fall within the Nutrient Impact Area due to its proximity to the River Test. As such, in order to avoid increased nitrogen and phosphorus input to the water environment, the development will need to achieve nutrient neutrality.

2.3.2 Ancient woodlands

The data search revealed no ancient woodlands with 2km of the site.

2.3.3 Priority habitats

The data search revealed that the only priority habitat with 2km of the site is deciduous woodland which is located 0.6km from the site.

3. Habitats

3.1 Methodology

A field survey was carried out on the 30th September 2023 by Trevor Codlin MCIEEM of Phillips Ecology. During the survey, all broad habitat types were identified and a list of characteristic plant species within each habitat type was compiled. These habitats are described below in accordance with Phase 1 habitat terminology.

3.2 Limitations

The survey was carried out in September, and at a time when many early flowering vascular species will have gone past their peak and as such they may no longer be visible. However, it was possible to make an assessment of the habitats present in accordance with the Phase 1 habitat terminology. It is therefore considered that there were no significant limitations to the survey.

3.3 Existing records

The data search revealed that the only priority habitat with 2km of the site is deciduous woodland.

3.4 Results

The following Phase 1 habitat types were recorded within the survey site.

3.4.1 Improved grassland (B4)

The majority of the site comprises grassland which has been seeded in the recent past (Figures 1 and 2). The grassland is dominated by perennial rye-grass *Lolium perenne* and is verdant with an even sward. The seeding has evidently increased the diversity of the sward with germander speedwell *Veronica chamaedrys*, yarrow *Achillea millefolium*, dandelion *Taraxacum officinale*, ground ivy *Glechoma hederacea*, common nettle *Urtica dioica*, creeping thistle *Cirsium arvense*, creeping buttercup *Ranunculus repens* and autumn hawkbit *Scorzoneroides autumnalis* recorded.



Figure 1 – grassland within the application site



Figure 2 – grassland within the application site

3.4.2 *Ephemeral/ short perennial (J1.3)*

An access track extends along the full length of the eastern site boundary from the south-eastern site access to the northern boundary (Figure 3). The access track is surfaced with basalt and a number of ruderal species have colonised the substrate. The following species were recorded: creeping thistle, white dead-nettle *Lamium album*, shepherd's purse *Capsella bursa-pastoris*, dove's-foot cranes-bill *Geranium molle*, broad-leaved dock *Rumex obtusifolius*, groundsel *Senecio vulgaris*, perforate St John's-wort *Hypericum perforatum* and butterfly bush *Buddleja* species.



Figure 3 – ephemeral / short perennial on hardstanding

3.4.3 *Boundaries*

Southern boundary - Hedgerow - intact – species-rich (J2.2.2)

The eastern site boundary is formed by a species-rich intact hedgerow with supplementary planting (Figure 4). The hedgerow supports the following species: hawthorn *Crataegus monogyna*, elder *Sambucus nigra*, field maple *Acer campestre*, wayfaring tree *Viburnum lantana*, wild privet *Ligustrum vulgare*, blackthorn *Prunus spinosa*, bramble *Rubus fruticosus* agg. and traveller's-joy *Clematis vitalba*.



Figure 4 – southern boundary hedgerow

Western boundary - Hedgerow - intact – species-rich (J2.2.2)

The western site boundary is also formed by a species-rich intact hedgerow with the same species that are present in the southern hedgerow and additional species: hazel *Corylus avellana*, honeysuckle *Lonicera periclymenum* and holly *Ilex aquifolium* (Figure 5).



Figure 5 – western boundary hedgerow

Northern and eastern boundaries

The northern and eastern boundaries are formed by wooden post and rail fencing.

3.5 Assessment

Overall, the vegetation on site is considered to be common and widespread with no significant assemblages of rare or noteworthy species. The most significant ecological features are the boundary hedgerows which form the southern and western site boundaries. Otherwise, the vegetation is considered to be of low botanical value.

4. Protected and notable species assessment

The scope of works, data search and habitat assessment have informed the scope of the protected and notable species assessment. On this basis, the following protected and priority species have been considered further within this report:

- Bats (foraging and commuting)
- Badgers
- Hazel dormice
- Hedgehogs
- Reptiles
- Great-crested newts
- Breeding birds

The surveyed site has been assessed for its potential to support the above-named protected species based upon the criteria in Table 1.

Table 1 Protected species grading criteria

Grading criteria	Justification
<i>Negligible</i>	Site is entirely unsuitable for species. Presence of species highly unlikely.
<i>Low</i>	Minimal suitable habitat present or, if present, highly degraded/fragmented. Minimal linkage to suitable habitat beyond site. Presence of species unlikely.
<i>Moderate</i>	Presence of some suitable habitat features for species. Surveyed site within/close to known range or known occurrence but factors such as isolation/fragmentation may reduce potential. Presence of species is more likely than not.
<i>High</i>	Presence of optimal habitat features for species. Surveyed site within known range/close to known occurrence. Excellent connectivity to optimal habitat. No justification for discounting presence of species.
<i>Confirmed presence</i>	Species confirmed on site through direct sighting, presence of field signs (e.g. scat, hair, prints, nest, eggs, habitation etc.) or through desk-based assessment.

5. Bats

5.1 Methodology

There were no built structures or mature trees with potential bat roost features recorded on the site and therefore an assessment was made of the site’s suitability to support foraging and commuting bats only. This was carried out in accordance with the Bat Conservation Trust (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition).

5.2 Limitations

Limitations were not encountered during the course of the survey.

5.3 Assessment methodology

The site’s suitability for supporting commuting and foraging bats will be assessed against the guidelines within Table 2 which have been adapted from the BCT Good Practice Guidelines.

Table 2 Suitability assessment guidelines

Suitability	Description of Foraging/Commuting Habitats
<i>Negligible</i>	Negligible habitat features on site likely to be used by commuting or foraging bats.
<i>Low</i>	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated i.e. not very well connected to the surrounding landscape by other habitats. Suitable but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not parkland situation) or a patch of scrub.
<i>Moderate</i>	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such tree, scrub, grassland or water.
<i>High</i>	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of tree and woodland edge. High quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

5.4 Results

The site boundaries are defined by hedgerows, along the southern and western boundaries. These are of the most significant value for bat foraging or commuting. These hedgerows are directly connected to further mature hedgerows within the immediate surrounding area. It is considered that bats roosting within the village may use these as a commuting feature to access the wider landscape.

5.5 Assessment

When considered against the criteria set out in Table 2, the site is considered to support moderate suitability for foraging and commuting bats. This assessment is based on the presence of linear habitats which are directly connected to further intact hedgerows.

6. Badgers

6.1 Methodology

The survey involved a detailed investigation of the site to identify evidence of badger residence, foraging or territorial activity. This includes badger setts, latrine sites, dung piles, well-used trails, prints and hairs. Particular emphasis was placed on locating badger setts, paths and signs of territorial activity such as dung piles and latrines.

6.2 Limitations

The only limitation identified was the fact that the field had been recently mown, thereby removing any evidence of badger activity. However, marginal areas were still undisturbed and therefore it is considered that the survey will not have been invalidated.

6.3 Results

No evidence of mammal foraging activity was recorded on site. Furthermore, no evidence of a badger sett was recorded, however, the nearby mature hedgerows would provide suitable habitat for the formation of a sett.

6.4 Assessment

Badger setts are considered to be absent from the site, however, there is considered to be high potential for badgers to utilise foraging opportunities within and surrounding the site.

7. Dormice

7.1 Methodology

An assessment was made of the suitability of habitat on site to support hazel dormice. Key habitats are woodland, scrub and hedgerows, particularly where these offer dense vegetation within which to nest/hibernate and key resources such as hazel nuts, fruiting/nectar-rich plants (e.g. hawthorn, bramble) to provide a continuum of food resources throughout the active season and honeysuckle *Lonicera periclymenum* (for nesting material). Landscape-scale habitat linkages such as hedgerows are fundamental

for dormouse presence where small scale or sub-optimal habitats are recorded within a site.

7.2 **Limitations**

Limitations were not encountered during the course of the survey.

7.3 **Results**

The majority of the site lacks mature vegetation and therefore is considered wholly unsuitable for dormice. The boundaries of the site include species-rich intact hedgerows with good linkages to the surrounding hedgerow network. The hedgerows support a range of food plant species which would provide a continuum of foraging opportunities for dormice. Furthermore, the hedgerows provide sufficient cover for nesting.

7.4 **Assessment**

Overall, the boundary hedgerows are considered to support moderate potential for dormice.

8. Hedgehogs

8.1 **Methodology**

The site was assessed for its suitability to support hedgehogs based on the presence of favoured habitats such as woodland edges, hedgerows, grassland and suburban habitats.

Hedgehogs are most abundant within gardens, parks and amenity land close to or within human settlements. They are generally scarce in areas of coniferous woodland, marshes and moorland, probably because of a lack of suitable sites and materials for the construction of winter nests (Morris, 2006). Any evidence of hedgehog activity such as prints or droppings would be recorded.

8.2 **Limitations**

Low detections rates are associated with evidence of hedgehog activity; therefore, absence of evidence does not confirm the absence of hedgehogs. For this reason, the assessment of the likely presence/absence of hedgehogs has largely been informed by the species' local distribution and the habitats within the site and local area. In addition recent mowing of the site will have removed any evidence of hedgehog.

8.3 **Results**

The site is located on the edge of a small village and despite the agricultural nature of the surrounding landscape, it is considered that hedgehogs could use the network of field margins, hedgerows and roadside verges to move around the landscape. The site is considered to have the potential to support foraging hedgehog although no direct evidence was noted.

8.4 **Assessment**

There is considered to be moderate potential for hedgehog to occur on site.

9. Reptiles

9.1 Methodology

An assessment was made of the site's suitability to support reptile populations. Key habitat features include tussocky/patchy grassland, scrub edge, linear watercourses, ponds, compost heaps, brash piles and rubble/soil heaps. Linkage to suitable habitat within the surrounding landscape will increase the potential for reptiles to occur, although populations can occur within isolated/fragmented habitats even within urban areas.

9.2 Limitations

Limitations were not encountered during the course of the survey.

9.3 Results

The site comprises improved grassland, that had been managed and patches of ephemeral/short perennial vegetation. These areas could have the potential to support common reptile species, most likely common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis*. Typically, reptile species do not persist well in agricultural settings and as such it is considered that any populations present would be small. No evidence of reptile activity was recorded.

9.4 Assessment

There is considered to be low potential for reptiles to occur on site.

10. Great Crested Newts

10.1 Methodology

Great crested newts (GCN) are only present in their breeding ponds during the spring and early summer – for the rest of the year, they will be dispersed across the surrounding area, generally in grassland, scrub, woodland and hedgerows, although they may be found in gardens and brownfield sites. They can travel some distance from their breeding ponds, and as a general rule, developments within 500m of such a pond may have the potential to have an impact on GCN, although to a certain extent, this does depend on any intervening habitat or barriers to dispersal.

An assessment was made of any waterbodies and terrestrial habitat within the site for their suitability to support populations of amphibians. Suitable waterbodies will generally be characterised by the presence of good quality water, diverse macrophyte cover and an absence of fish. For the great crested newt, each waterbody is normally assessed using the Habitat Suitability Index (HSI) system (Oldham et al., 2000) and assigned a grading score between zero (poor suitability) and 1 (excellent suitability).

10.2 Limitations

The HSI for great crested newts is a measure of habitat suitability. In general, ponds with high HSI scores are more likely to support great crested newts than those with low scores. However, in isolation, the system is not sufficiently precise to allow the conclusion that

any particular pond with a high score will support newts, or that any pond with a low score will not do so (Oldham et al., 2000).

10.3 Results

The site does not support any standing freshwater waterbodies and no waterbodies are located within a 500m radius of the application site.

10.4 Assessment

Given the absence of waterbodies with the suitability for supporting GCNs on the site and within 500m of the application site, there is considered to be negligible potential for great crested newt to occur on site.

11. Breeding birds

11.1 Methodology

An assessment was made of the site's suitability to support breeding bird species. Nesting birds will utilise a broad range of habitats, including built structures, trees, scrub, isolated shrubs, dense herbaceous vegetation (terrestrial and aquatic) and open grassland. All bird species and evidence of breeding activity (active or inactive) observed on site were recorded.

11.2 Limitations

The survey was undertaken at the end of the breeding season for many species of bird, therefore, the assessment relied upon a combination of species present and suitable habitat and inactive nests.

11.3 Results

During the survey the following species were recorded on or flying over the site: common woodpigeon *Columba palumbus*, robin, *Erithacus rubecula*, blackbird *Turdus merula*, blue tit *Cyanistes caeruleus*, long-tailed tit *Aegithalos caudatus*, carrion crow, *Corvus corone*, robin, *Erithacus rubecula*, house sparrow *Passer domesticus* and goldfinch *C. carduelis*. The recent publication of The Birds of Conservation Concern 5 has highlighted that 70 species are now included on the red list due to significant declines in their respective populations. Of the species recorded during the survey, house sparrow is listed on the red list.

The desktop study revealed that the site and the wider area falls within a priority area for lapwing *Vanellus vanellus*, stone curlew *Burhinus oedipnemus*, grey partridge *Perdix perdix* and corn bunting *Emberiza calandra* which are a declining bird species. In addition the site is included as part of an important area for its assemblages of arable (three species present) birds.

11.4 Assessment

The site is located in an important area for farmland birds, but in itself provides limited opportunity for nesting. The most significant features are the boundary hedgerows that form the southern and western boundaries, and the ruderal herbs around the margins.

The central part of the site comprises improved grassland and could provide some potential for nesting birds, but its small size and tall boundaries which provide cover for predators limit breeding opportunity.

Given the location and size of the site it is considered that a variety of species, such as those recorded on the site (listed above), could utilise some features, principally the hedgerows, for nesting, but the number of pairs are likely to be limited to single or a low number (1-3) pairs.

12. Discussion and Assessment of Impacts

12.1 Relevant legislation and policy

Circular 06/2005 identifies that applicants should not be required to provide information on protected species unless there is a reasonable likelihood that they will be present and affected by the proposed development. The site is considered to support habitats with suitability and potential for protected species and these may be affected by the proposed development. Therefore, the proposal triggers 'reasonable likelihood' under the Circular.

The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (commonly referred to as the Habitats Regulations) may apply should protected species be confirmed on site.

In the case that a European protected species is found to be present and impacted by the proposal, the local planning authority will be required to engage with the Habitat Regulations. Permission will be granted unless:

- a) the development is likely to result in a breach of the Habitats Regulations, and
- b) is unlikely to be granted an EPS licence from Natural England to allow the development to proceed under a derogation from the law (under licence).

When considering whether Natural England would not be unlikely to grant a licence for the identified impact, the local planning authority must consider the three tests which are set out in the Habitat Regulations:

1. the consented operation must be for 'preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment' (Regulation 53(2)(e));
2. there must be 'no satisfactory alternative' (Regulation 53(9)(a)); 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' (Regulation 53(9)(b)).

Natural England will grant a licence if the development proposal is able to meet the three tests.

12.2 Designated sites

No designated sites were identified within 2km of the site, however, the application site does fall within the Nutrient Impact Area due to its proximity to the River Test. As such, in order to avoid increased nitrogen and phosphorus input to the water environment, the development will need to achieve nutrient neutrality.

12.3 Habitats

The habitats which will be directly impacted by the proposals are species-poor grassland and short perennial/ephemeral. As the vegetation to be removed is easily replicable and

of low botanical value, it is considered that there will be no impact to habitats of ecological importance such as priority habitats or noteworthy plant species.

12.4 **Bats**

The application site is considered to support moderate suitability for foraging and commuting bats. The marginal areas, including the boundary hedgerows are the features that will be of most value, especially the western hedgerow which extends along King Lane. The proposals will see the loss of an area of improved grassland and short perennial/ephemeral, but these are common and widespread in the local area. Additionally, illumination of the habitats as a result of the proposals could render them unsuitable for foraging and commuting bats, resulting in an overall loss of foraging/commuting habitat on site.

12.5 **Badgers**

No conclusive evidence of badger activity was recorded on the site, however, given the rural location of the site, it is considered likely that badgers will be present in the local area and could therefore forage across the site.

Potential impacts during operation are not anticipated, although impacts could occur during the construction phase, particularly if deep trenches are left uncovered.

12.6 **Hazel dormouse**

The proposal will not result in the loss of habitat which is considered to be suitable for dormice. Therefore, no impacts on dormice are anticipated.

12.7 **Hedgehog**

No evidence of hedgehog was recorded, but the site supports suitable habitat. Impacts on hedgehog will be associated with the loss of foraging habitats. In addition, during the construction phase, particularly if deep excavations are left uncovered or filled with water these could prove hazardous to hedgehogs

12.8 **Reptiles**

Typically, reptiles do not persist well in agricultural environments due to the continually changing ground conditions. However, the marginal areas remain largely unmanaged at this site and therefore could support common species of reptile. The proposals will result in the loss of a small amount of suitable foraging habitat, should reptiles prove to be present.

12.9 **Great crested newts**

Impacts on great crested newts are not anticipated given the absence suitable waterbodies on the site and within 500m of the site.

12.10 **Breeding birds**

The proposals will result in the loss of an area of improved grassland and some associated ruderal herbs. The habitats present provide limited nesting and foraging opportunity for birds due to the limited extent available and presence of tall boundary features.

13. Requirement for further surveys

Further surveys are required where there is a reasonable likelihood that a protected species will be present and impacted by the proposed development. An assessment into the requirement for further surveys is presented below, however in summary, no further surveys are considered necessary.

13.1 Designations

No further surveys are considered necessary.

13.2 Habitats

No further surveys are considered necessary.

13.3 Bats

The affected areas of habitat within the site are considered to be unexceptional in the context of the local area as a foraging or commuting resource. Therefore, further survey is considered unnecessary for understanding impacts on foraging and commuting bats subject to the precautionary mitigation measures set out in Section 14.

13.4 Badgers

Subject to the precautionary mitigation measures set out in Section 14, no further surveys are considered necessary.

13.5 Hazel dormice

As impacts on dormice are not anticipated, no further recommendations relating to dormice are considered necessary.

13.6 Hedgehog

Subject to the precautionary mitigation measures set out in Section 14, no further surveys are considered necessary.

13.7 Reptiles

Subject to the precautionary mitigation measures set out in Section 14, no further surveys are considered necessary.

13.8 Great Crested Newts

As impacts on great crested newts are not anticipated, no further recommendations relating to great crested newts are considered necessary.

13.9 Breeding birds

As impacts on breeding birds are not anticipated, no further recommendations relating to breeding birds are considered necessary.

14. Mitigation recommendations

14.1 Bats

In order to limit any effects on foraging and commuting bats, external lighting should be limited to only that which is absolutely necessary for safety purposes, both during the construction phase and once the proposals are complete. The following lighting measures are required:

- Construction works between March and October should be undertaken during daylight hours only to avoid disturbance to bats that may forage and commute through or near the site.
- Lighting to the completed dwellings should be as low brightness as possible, kept at a low level and directed away from the southern and western boundaries hedgerow. Lighting on sensors should not be so sensitive that foraging bats trigger them.

All lighting must follow the Bat Conservation Trusts and Institute of Lighting Professionals guidance on bats and artificial lighting (BCT, 2018).

14.2 Badgers

In order to avoid harm to badgers during the construction works, any trenches will either be covered at night or fitted with a soil or plank ramp to enable any badgers which fall in to leave on their own accord.

14.3 Hedgehogs

In order to avoid harm to hedgehogs during the construction works the following precautionary measures will be employed:

- Any accumulations of brash, including those already existing, will be dismantled by hand in a sensitive and careful manner.
- No bonfires will be made or lit on site.
- All trenches will be left covered at night. They must be checked in the morning before they are filled in.

14.4 Reptiles

Given the limited potential for reptiles to be present it is not considered necessary to carry out further detailed surveys. However, it is recommended that prior to any works commencing that a precautionary approach is adopted.

- Any vegetation in the working area must be sensitively cleared under the supervision of an experienced ecologist. Any reptiles found during this works must be moved to a secure holding area outside of the development footprint. Once the vegetation is considered clear of reptiles, all remaining vegetation can be cleared, and must remain cleared.

- All waste shall be placed directly into a skip so that rubble piles and therefore potential hibernation areas are not created in areas which will subsequently be disturbed by site works.
- Piles of loose sand or other granular materials into which reptiles could bury are not to be left around the site. All such materials will ideally be delivered in bags and kept in such bags until required for use. Bags should be stored on pallets. If it is essential that they are delivered loose, they should only be dug into by hand.
- All trenches will be left covered at night. They must be checked in the morning before they are filled in.
- No bonfires will be made or lit on site.

15. Enhancements

The delivery of biodiversity enhancement on development sites is promoted by the National Planning Policy Framework (NPPF) and Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006.

Where opportunities exist it is best practice to provide enhancement features which encourage greater biodiversity within development sites in accordance with the NPPF and Local Planning Authority's responsibilities under the NERC Act.

Given that the proposals will only occupy approximately three quarters of the site there is an opportunity to enhance the site for biodiversity. The application of the mitigation hierarchy; avoid, mitigate, compensate and enhance provides some sound principles to be followed. Enhancement measures should look to build on the ecological features of the local area, thereby providing additional habitat for species that are already present in the local area, such as farmland birds.

Opportunities for enhancement which are proportionate to the scale of the development include:

- New hedgerow planting along the northern boundary and between the two dwellings. These creation of native species hedgerows along the boundaries of the site. The following species mix will be utilised: blackthorn (25%), hawthorn (25%), dog-rose (10%), elder (10%), field maple *Acer campestre* (10%), dogwood (10%) and wild privet (10%). Additional supplementary planting will be provided where necessary along the existing hedgerows.
- The provision of new bird nesting opportunities in the form of three open fronted and three hole-entranced nest boxes. These could be installed in suitable locations within the existing hedgerows.
- Grassland enhancement within the southern area of the site. The existing grassland will be enhanced with a species-rich grassland seed mix and will be subject to hay meadow management.

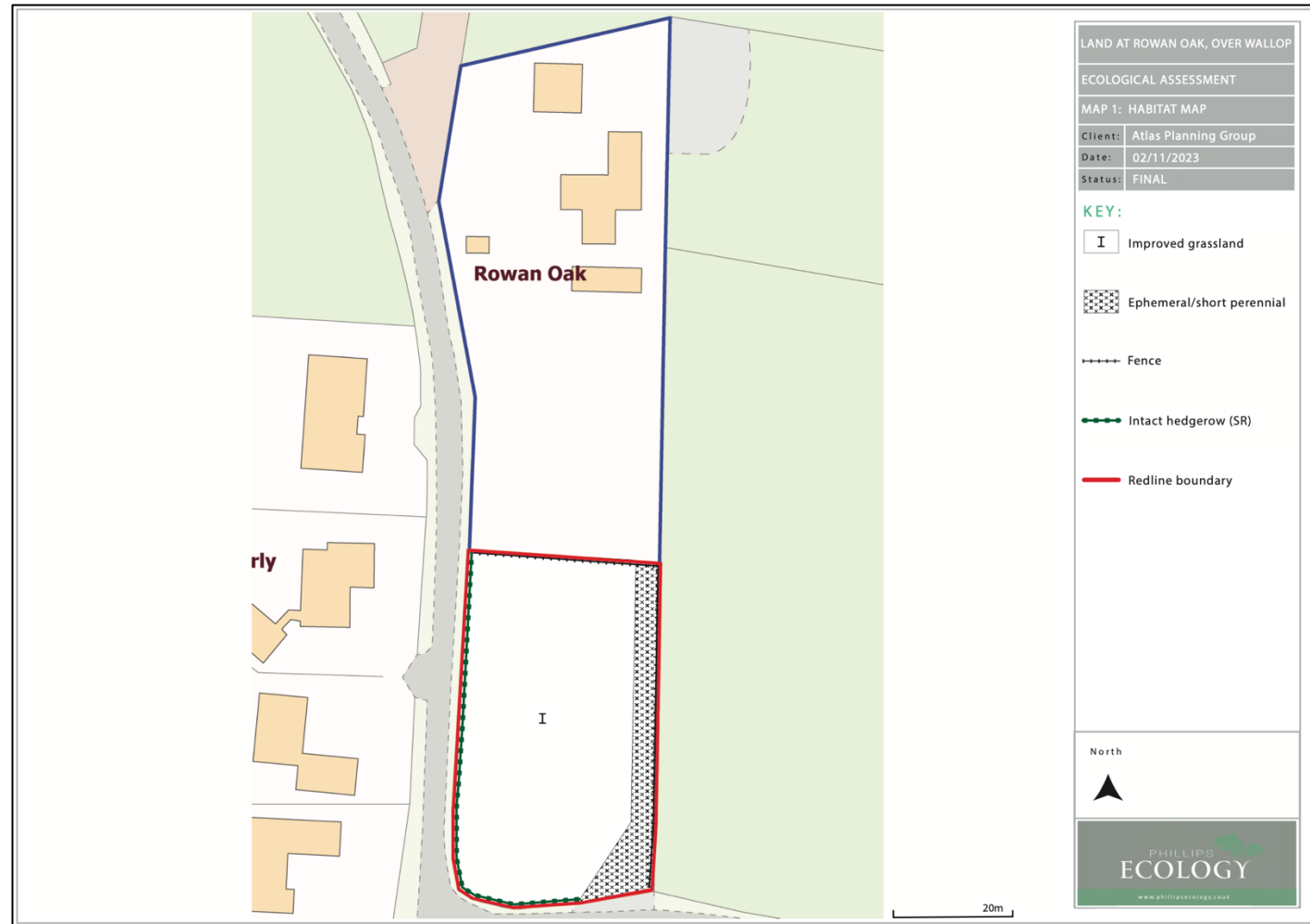
16. Conclusion

The extended phase 1 ecological assessment has confirmed that the site supports habitats that are considered common and widespread and as such of low botanical value. However, there are opportunities for a range of protected species including badgers, breeding birds, reptiles and foraging and commuting bats. Given the scale of the proposal, it is possible to deliver the scheme with a range of measures which avoid impacts on the identified ecological receptors and also deliver biodiversity enhancements at a site level.

17. References

- **Altringham J D, 2003**, British Bats, Collins New Naturalist
- **Anon, 2001**, *Great Crested Newt Mitigation Guidelines*, English Nature, Peterborough.
- **Bat Conservation Trust, 2016**, BCT Bat Survey Guidelines Third edition.
- **Barn Owl Trust, 2012**, *Barn Owl Conservation Handbook*. Pelagic Publishing, Exeter.
- **Chartered Institute of Ecology and Environmental Management, 2017**. *Guidelines for Preliminary Ecological Appraisal*. CIEEM, Winchester
- **Clark, M. 2017**, *Badgers*. Whittet Books Ltd, Essex
- **Eaton MA, Aebisher NJ, Brown NF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA, and Gregory RD (2015)** Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel islands and isle of Man. *British Birds* 108, 708-746.
- **English Nature, 2002**, Barn owls on site – A guide for developers and planners
- **Gent T and Gibson S 1998** *Herpetofauna Workers Manual JNCC*
- **Joint Nature Conservation Committee. 1993**. *A Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit*. Peterborough: Joint Nature Conservation Committee.
- **Mitchell Jones AJ, 2004**, *Bat Mitigation guidelines*, English Nature
- **Mitchell Jones AJ and McLeish A P, The Bat Workers Manual, JNCC**
- **Morris, P. A. (2006)** The New Hedgehog Book. London, Whittet Books.
- **Natural Environment and Rural Communities Act 2006**, Ch 3, s. 40
- **Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. 2000**. *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus)*. Herpetological Journal 10 (4), 143 - 155.
- **Pearce G. E., 2011**, *Badger Behaviour, Conservation & Rehabilitation*. Pelagic Publishing, Exeter.

Appendix 1 – Proposed Site Plan





07760 208562

info@phillipsecology.co.uk

www.phillipsecology.co.uk

Hampshire office:
Clifton Cottage
Bucks Head Hill
Meonstoke
Hampshire
SO323NA