# SHEPHERD NEAME



# RED LION, RUSTHALL, KENT

# **Ecological Assessment**

October 2018 7812.EcoAs.vf1

ecology solutions for planners and developers

# COPYRIGHT

The copyright of this document remains with Ecology Solutions. The contents of this document therefore must not be copied or reproduced in whole or in part for any purpose without the written consent of Ecology Solutions.

# CONTENTS

1	INTRODUCTION	1
2	SURVEY METHODOLOGY	2
3	ECOLOGICAL FEATURES	5
4	WILDLIFE USE OF THE SITE	8
5	ECOLOGICAL EVALUATION	13
6	PLANNING POLICY CONTEXT	20
7	SUMMARY AND CONCLUSIONS	22

# PLANS

PLAN ECO1	Site Location and Ecological Designations
PLAN ECO2	Ecological Features

# **PHOTOGRAPHS**

- PHOTOGRAPH 1 Amenity Grassland with Mature Trees on Eastern Boundary
- PHOTOGRAPH 2 Scrub in South of Site
- PHOTOGRAPH 3 Sandstone Escarpment on Southern Boundary
- PHOTOGRAPH 4 Building B1
- PHOTOGRAPH 5 Disturbed Ground under Play Area
- PHOTOGRAPH 6 Pond P1

## **APPENDICES**

APPENDIX 1 Information downloaded from Multi-Agency Geographic Information for the Countryside (MAGIC)

# 1. INTRODUCTION

# 1.1. Background & Proposals

- 1.1.1. Ecology Solutions was commissioned in March 2018 by Milliken and Company on behalf of Shepherd Neame to undertake an ecological assessment of land behind the Red Lion, Rusthall, Kent (see Plan ECO1).
- 1.1.2. The proposals for the site comprise three new residential properties with associated green space and landscaping.

# 1.2. Site Characteristics

- 1.2.1. The site is situated to the north of Lower Green Road on the northern edge of the village of Rusthall, approximately 2.2km west of Tunbridge Wells. The local area is characterised by residential properties and small gardens, with mixed farmland and areas of woodland present to the northwest.
- 1.2.2. The site is dominated by amenity grassland bisected by a close-board fence, with areas of scrub and trees at the boundaries. A small area of disturbed ground is also present within a play area. The site is bounded on the east and south by walls covered in Ivy *Hedera helix*. A pond is present adjacent to the site's western boundary.

# 1.3. Ecological Assessment

1.3.1. This document assesses the ecological interest of the site. The importance of the habitats within the site is evaluated with due consideration given to the guidance published by the Chartered Institute of Ecology and Environmental Management (CIEEM)<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup>CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal.* Chartered Institute of Ecology and Environmental Management, Winchester.

# 2. SURVEY METHODOLOGY

2.1. The methodology utilised for the survey work can be split into three areas, namely desk study, habitat survey and faunal survey. These are discussed in more detail below.

# 2.2. Desk Study

- 2.2.1. In order to compile background information on the site and the surrounding area, Ecology Solutions contacted the Kent and Medway Biological Records Centre (KMBRC).
- 2.2.2. Further information on designated sites from a wider search area was obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC)<sup>2</sup> database. This information is reproduced in Appendix 1 and where appropriate on Plan ECO1.

# 2.3. Habitat Survey

- 2.3.1. A habitat survey was carried out by Ecology Solutions in March 2018 in order to ascertain the general ecological value of the site and to identify the main habitats and associated plant species.
- 2.3.2. The site was surveyed based around extended Phase 1 survey methodology<sup>3</sup>, as recommended by Natural England, whereby the habitat types present are identified and mapped, together with an assessment of the species composition of each habitat. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey. Any such areas identified can then be examined in more detail.
- 2.3.3. Using the above method, the site was classified into areas of similar botanical community types, with a representative species list compiled for each habitat identified.
- 2.3.4. All the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent at different seasons. The surveys were undertaken just outside the optimal period for Phase 1 surveys (which is April to September inclusive). However, given the habitats present, it is considered an accurate and robust assessment of the botanical interest has been made.

# 2.4. Faunal Survey

2.4.1. Obvious faunal activity, such as birds or mammals observed visually or by call during the course of the surveys, was recorded. Specific attention was paid to any potential use of the site by protected species, priority species, or other notable species.

<sup>2</sup>http://www.magic.gov.uk

<sup>&</sup>lt;sup>3</sup>Joint Nature Conservation Committee (2010). *Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit*. England Field Unit, Nature Conservancy Council, reprinted JNCC, Peterborough.

2.4.2. In addition to general observations of faunal activity, special attention was paid to the potential presence of Badgers *Meles meles* and bats.

Bats

- 2.4.3. All trees within the site were assessed for their potential to support roosting bats. Features typically favoured by bats, or evidence of past use by bats were searched for, including:
  - Obvious holes, e.g. rot holes and old Woodpecker holes;
  - Dark staining on the tree, below a hole;
  - Tiny scratch marks around a hole from bats' claws;
  - Cavities, splits and / or loose bark from broken or fallen branches, lightning strikes etc.; and
  - Very dense covering of mature Ivy over the trunk.
- 2.4.4. The building within the site was assessed for its potential to support bats. The probability of a building being used by bats as a summer roost site increases if it:
  - is largely undisturbed;
  - dates pre-20<sup>th</sup> Century;
  - has a large roof void with unobstructed flying spaces;
  - has access points for bats (e.g. along gaps at the eaves, under gaps in the roofing tiles, or along gaps within the built structure);
  - has a roof void which is not too draughty;
  - has wooden cladding;
  - has hanging tiles; and / or
  - is in a rural setting and close to woodland and water features.

# Badgers

- 2.4.5. The surveys comprised two main elements: firstly, searching thoroughly for evidence of Badger setts. If any setts were encountered each sett entrance was noted and plotted, even if the entrance appeared disused. The following information was recorded:
  - i) The number and location of well used or very active entrances; these are clear of any debris or vegetation and are obviously in regular use and may, or may not, have been excavated recently.
  - ii) The number and location of inactive entrances; these are not in regular use and have debris such as leaves and twigs in the entrance or have plants growing in or around the edge of the entrance.
  - iii) The number of disused entrances; these have not been in use for some time, are partly or completely blocked and cannot be used without considerable clearance. If the entrance has been disused for some time all that may be visible is a depression in the ground where the hole used to be together with the remains of the spoil heap.

2.4.6. Secondly, evidence of Badger activity such as well-worn paths, runthroughs, snagged hair, footprints, latrines and foraging signs was recorded so as to build up a picture of the use of the site by Badgers.

Great Crested Newts

- 2.4.7. The Habitat Suitability Index (HSI) for the Great Crested Newt *Triturus cristatus*, developed by Oldham et al. (2000), was applied during the surveys to accord with guidance set out by the National Amphibian and Reptile Recording Scheme.
- 2.4.8. The HSI is a numerical index in which scores between 0 and 1 indicate the suitability of habitat. The scoring system is shown in Table 2.1 below. As certain variables can only be gauged accurately between May and September, our assessment of the pond's suitability is not indicative.

HSI Score	Pond Suitability
<0.5	Poor
0.5 – 0.59	Below Average
0.6 – 0.69	Average
0.7 – 0.79	Good
>0.8	Excellent

Table 2.1. Habitat Suitability Index (HSI) Scores Summary.

# 3. ECOLOGICAL FEATURES

- 3.1. A habitat survey was undertaken within the site by Ecology Solutions in March 2018.
- 3.2. The following main habitat / vegetation types were identified within the site during the survey:
  - Amenity Grassland;
  - Scrub;
  - Trees;
  - Building; and
  - Disturbed Ground.
- 3.3. In addition, the following habitats were recorded adjacent to the site:
  - Pond
- 3.4. The location of these habitats is shown on Plan ECO2.

# 3.5. Amenity Grassland

3.5.1. The majority of the site comprises an amenity lawn dominated by Red Fescue Festuca rubra (see Photograph 1). Other species present include Cocksfoot Dactylis glomerata, Dandelion Taraxacum officinale, Herb Robert Geranium robertianum, Cleavers Galium aparine, Bittercress Cardamine sp., Primrose Primula vulgaris, Forget-me-not Myosotis sp., Creeping Buttercup Ranunculus repens, Lesser Celandine Ranunculus ficaria, Hogweed Heracleum sphondylium, Bramble Rubus fruticosus, Common Nettle Urtica dioica, Selfheal Prunella vulgaris, Broad-leaved Dock Rumex obtusifolius, Ground Ivy Glechoma hederacea, Garlic Mustard Alliaria petiolata, Common Field Speedwell Veronica persica, Daisy Bellis perennis, Spring Crocus Crocus vernus, Rough Hawkbit Leontodon hispidus, Lords-and-ladies Arum maculatum and Cyclamen Cyclamen hederifolium.

# 3.6. **Scrub**

- 3.6.1. A band of planted scrub is present along the northwestern boundary of the site. Species recorded include Holly *Ilex aquifolium*, Bramble, Elder *Sambucus nigra*, False Acacia *Robinia pseudoacacia*, Winter Creeper *Euonymus fortunei*, Cotoneaster *Cotoneaster* sp., Ivy, Bluebell *Hyacinthoides* sp., Lords-and-Ladies, Common Field Speedwell, Common Nettle, Cleavers, Daffodil, Spring Crocus, Herb Robert, Dandelion, Creeping Buttercup, Dog's Mercury *Mercurialis perennis*, Primrose, Ground Ivy and Lesser Celandine.
- 3.6.2. The eastern and southern boundaries of the site consist of areas of unmanaged scrub (see Photograph 2). An exposed sandstone escarpment of approximately 2m high is present towards the southern boundary (see Photograph 3). A number of log / rubble piles and abandoned plastic sheeting are also present within the scrub. Species recorded include Snowberry *Symphoricarpos albus*, Elder, Blackthorn, Hazel *Corylus avellana*, Bramble, Pendulous Sedge *Carex pendula*,

Teasel *Dipsacus sylvestris*, Common Nettle, Small Nettle *Urtica urens*, Hogweed, Willowherb Epilobium sp., Creeping Thistle *Cirsium arvense*, Foxglove *Digitalis purpurea*, Common Fleabane *Pulicaria dysenterica*, Dandelion, Herb Robert, Ground Ivy, Ivy, Garlic Mustard, Creeping Buttercup, Cocksfoot, Daffodil, Wood Avens *Geum urbanum*, Lesser Celandine, Cress *Lepidium sativum*, Cleavers and Common Field Speedwell.

3.6.3. Some scattered scrub was recorded within the site. Species recorded included Hazel, Elder and Mahonia *Mahonia japonica*.

# 3.7. **Trees**

- 3.7.1. There are several semi-mature and mature trees within the site, mostly associated with the boundaries (see Photograph 1). Mature tree species recorded include Red Oak *Quercus rubra* (approximately 25m tall), Sycamore *Acer pseudoplatanus* (tallest approximately 20m), Ash *Fraxinus excelsior* (approximately 20m tall), Cherry *Prunus* sp., Crab Apple *Malus sylvestris* and Orchard Apple *Malus domestica*. Several semi-mature Sycamore are present on the northeastern boundary. Several of the Sycamore trees have significant lvy cover.
- 3.7.2. The presence of three mature fruit trees suggest that the site once formed part of an orchard, a point also referred to by the publican during the site survey. Reference to the MAGIC database reveals the site has not been listed as the UK priority habitat, Traditional Orchards.

# 3.8. Building

3.8.1. A dilapidated outside toilet (Building B1) is present within the south of the site (see Photograph 4). The building is brick built and lacks a roof and door. There is significant Ivy cover surrounding the outer walls of the building.

# 3.9. Disturbed Ground

3.9.1. An area of disturbed ground is present underneath a play area in the northern area of the site (see Photograph 5). Species recorded include Red Fescue, Cocksfoot, Groundsel Senecio vulgaris, Cleavers, Dandelion, Common Field Speedwell, Herb Robert, Wood Forget-me-not, Hogweed, Shepherd's Cress *Teesdalia nudicaulis*, Creeping Buttercup, Ground Ivy and Creeping Thistle.

# 3.10. **Pond**

3.10.1. Pond P1 is located adjacent to the western boundary of the site. It appears to be have been constructed within the last few years. The pond is surrounded by paving and lacks any emergent or aquatic vegetation (see Photograph 6).

# 3.11. Background Records

3.11.1. Kent and Medway Biological Records Centre returned no notable plant records from within the site.

- 3.11.2. Forty-three records of Bluebell, a species listed in Schedule 8 of the Wildlife and Countryside Act 1981 (as amended), were returned by the data search. The closest record relates to Bluebell presence in the 1km grid square that contains the site and dates from 2016. The most recent record dates from 2017 and relates to a location approximately 0.8km southeast of the site.
- 3.11.3. A small patch of Bluebell *Hyacinthoides non-scripta* was recorded in the scrub in the north western area of the site. However, at this time of year the protected native Bluebell cannot be distinguished from the introduced Spanish Bluebell *Hyacinthoides hispanica*. No other potentially notable plant species were recorded during the survey work.

# 4. WILDLIFE USE OF THE SITE

4.1. General observations were made during the surveys of any faunal use of the site, with specific attention paid to the potential presence of protected species. Records returned from the Kent and Medway Biological Records Centre from the past 15 years (2003 to 2018) are noted.

# 4.2. Bats

- 4.2.1. No bats were recorded on site during the survey work. The Ivy coverage on the Sycamores on the eastern boundary is not considered to be mature enough to support any bat roosting potential. Building B1 provides low bat roosting potential owing to damaged tiles, gaps in the walls and significant Ivy coverage.
- 4.2.2. The habitats within the site present potential commuting and foraging resources for bats, particularly around the mature trees. Good roosting opportunities are present in the wider area, with a number of pre-20<sup>th</sup> century buildings present in proximity to the site. The site is also in the vicinity of ancient and semi-natural woodland and farmland to the northwest, which provides good foraging habitat.
- 4.2.3. The data search returned records for ten species of bat. The closest record relates to a dead Brown Long-eared Bat *Plecotus auritus* at a location approximately 0.3km south of the site and dates from 2016.
- 4.2.4. Twenty records of Serotine Bat *Eptesicus serotinus* were returned by the data search. The closest record relates to three bats at a location approximately 1.2km northwest of the site and dates from 2015. The most recent record dates from 2017 and relates to a location approximately 3km northeast of the site. A roost of unknown type was recorded at a location approximately 5.1km southwest of the site in 2007.
- 4.2.5. Eight records were returned for Daubenton's Bat *Myotis daubentonii*. The closest record relates to a grounded bat at a location approximately 2.3km southeast of the site and dates from 2009. The most recent record dates from 2016 and relates to bat presence at a location approximately 3.8km east of the site.
- 4.2.6. A single record of Whiskered Bat *Myotis mystacinus* was returned by the data search. The record relates to a grounded bat at a location approximately 3.4km northeast of the site and dates from 2013.
- 4.2.7. Three records were returned for Natterer's Bat *Myotis nattereri*. The closest record relates to a grounded bat at a location approximately 2.3km east of the site and dates from 2011. A hibernating bat was recorded at a location approximately 2.6km to the southeast in 2006.
- 4.2.8. A number of unidentified *Myotis* bats were recorded within 5km of the site. The closest records relate to locations approximately 1km to the northwest and northeast and date from 2015 and 2011 respectively. The most recent record dates from 2017 and relates to a location 3km northeast of the site.
- 4.2.9. Seven records of Leisler's Bat *Nyctalus leisleri* were returned by the data search. The closest and most recent record relates to a grounded bat

approximately 1.8km southwest of the site and dates from 2016. An unknown roost type was recorded at a location approximately 3.1km north of the site in 2002.

- 4.2.10. Twenty-five records were returned for Noctule *Nyctalus noctula*. The closest record relates to a location approximately 0.6km southeast of the site and dates from 2008. The most recent record dates from 2017 and relates to a location approximately 3km to the northeast.
- 4.2.11. The only record of Nathusius' Pipistrelle *Pipistrellus nathusii* relates to a location approximately 3.9km east of the site and dates from 2011.
- 4.2.12. One hundred and twenty-nine records of Common Pipistrelle *Pipistrellus pipistrellus* were returned by the data search. The closest record relates to a location approximately 0.6km southeast of the site and dates from 2008. The most recent record dates from 2017 and relates to a maternity roost with 40 individuals approximately 2.9km southeast of the site. Other maternity roosts are located approximately 3.5km east and 3.5km north of the site with 50 individuals in 2016 and 30 individuals in 2013 respectively.
- 4.2.13. Forty-nine records were returned for Soprano Pipistrelle *Pipistrellus pygmaeus*. The closest record relates to 28 individuals feeding at a location approximately 1.2km northwest of the site and dates from 2015. The most recent record dates from 2017 and relates to a location approximately 3km northeast of the site. A maternity roost with 380 individuals was recorded at a location approximately 1.7km to the southwest in 1998.
- 4.2.14. Thirty-seven records of Brown Long-eared Bat were returned by the data search. The closest record relates to dead bat found at a location approximately 0.3km south of the site and dates from 2016. The most recent record dates from 2017 and related to a location approximately 3km northeast of the site. An unknown roost type with one individual was recorded at a location 3km southeast of the site in 2014.

# 4.3. Badgers

- 4.3.1. No signs of Badgers were recorded on the site during the survey. A number of obvious mammal tracks are present within the southern area of the site which could be used by foraging or commuting Badgers.
- 4.3.2. Twenty-one records of Badgers were returned by the data search. The closest record relates to Badger presence at a location approximately 0.2km south of the site and dates from 2007. The most recent record dates from 2017 and relates to a location within the 1km grid square approximately 1.5km northwest of the site.

# 4.4. Dormice

4.4.1. Scrub is present within the site, but forms isolated stands contained by walls and fences and is therefore considered of little suitability for Dormice *Muscardinus avellanarius*. There is no other habitat on site suitable for this species.

4.4.2. Thirty-three records of Dormouse were returned. The closest record relates to Dormouse presence at a location approximately 0.7km southwest of the site and dates from 2005. The most recent record is dated from 2011 and relates to a location approximately 1.5km northwest of the site.

# 4.5. Hedgehogs

4.5.1. Five records of Hedgehog *Erinaceus europaeus* were returned from the area around the site in the past 15 years. The closest record relates to a location within the 1km grid square beginning approximately 1.1km north of the site and dates from 2003. The most recent record dates from 2017 and relates to a location approximately 2.6km northeast of the site. The scrub within the site offers good potential foraging for the species. The log and rubble piles provide suitable shelter and hibernation. No Hedgehogs were recorded during survey work.

# 4.6. **Other Mammals**

4.6.1. Signs of Fox *Vulpes vulpes*, including a suspected earth and mammal paths, were located on the eastern boundary within southern area of the site (see ECO2).

# 4.7. Birds

- 4.7.1. Robin *Erithacus rubecula*, Great Tit *Parus major*, Blue Tit *Cyanistes caeruleus*, Coal Tit *Periparus ater*, Goldfinch *Carduelis carduelis*, Greenfinch *Carduelis chloris*, Magpie *Pica pica*, Wood Pigeon *Columba palumbus*, Dunnock *Prunella modularis* and Green Woodpecker *Picus viridis* were recorded on site during the survey work. The habitats within and adjacent to the site, particularly the significant Ivy and old nest boxes present on site, offer good nesting and foraging opportunities for birds, and it is expected that an assemblage of common species will be present.
- 4.7.2. Records of a number of species protected under the listed in the Annex I of the Birds Directive or Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) were returned by the data search.
- 4.7.3. Wryneck *Jynx torquilla* was recorded within the 1km grid square beginning approximately 1.1km south of the site in 2013. The majority of records relate to the 1km grid square beginning approximately 2km southeast of the site. Honey Buzzard *Pernis apivorus* and Red Kite *Milvus milvus* were recorded in this square in 2016 and Peregrine *Falco peregrinus* and Dartford Warbler *Sylvia undata* were recorded in 2015. Common Crossbill *Loxia curvirostra*, Common Tern *Sterna hirundo* and Osprey *Pandion haliaetus* were recorded in 2011, 2010 and 2007 respectively. Hobby *Falco subbuteo* and Black Redstart *Phoenicurus ochruros* were recorded in the same grid square in 2005.
- 4.7.4. Little Egret *Egretta garzetta* was recorded within the 1km grid square approximately 2.5km northeast of the site in 2015. Kingfisher *Alcedo atthis* and Hobby were most recently recorded at locations within 5km of the site in 2016 and a Green Sandpiper *Tringa ochropus* was recorded within 5km of the site in 2013.

4.7.5. Considering the relatively small size of the site and the presence of a number of designated sites in the nearby area, it is unlikely that these species use the site to any significant degree.

# 4.8. **Reptiles**

- 4.8.1. No reptiles were recorded during the survey, though the habitats currently present provide some opportunities for hibernation in the form of log and rubble piles. Compost heaps adjacent to the north of the site also provide suitable hibernation opportunities. The amenity grassland within the site offers negligible potential for foraging reptiles due to the highly managed sward height. While the scrub and sandstone escarpment offer some suitable foraging and basking habitat, overall the presence of reptiles is unlikely.
- 4.8.2. Eight records of Common Lizard Zootoca vivipara were returned by KMBRC. The closest record relates to the species presence at a location approximately 0.6km southeast of the site and dates from 2003. The most recent record dates from 2012 and relates to a location approximately 1.5km northeast of the site. Twenty-six records of Slow Worm Anguis fragilis were returned by the data search. The closest record relates to a location approximately 0.2km northwest of the site and dates from 2013. The most recent record dates from 2016 and relates to a location approximately 2.2km southeast of the site. Thirty records were returned for Grass Snake Natrix helvetica. The closest record relates to presence at a location approximately 0.6km south of the site and dates from 2003. The most recent record dates from 2013 and relates to a location approximately 2.6km northwest of the site. Four records were returned for Adder Vipera berus. The closest record and most recent relates to a location approximately 0.7km northeast of the site and dates from 2010.

# 4.9. **Amphibians**

4.9.1. Four Common Frogs *Rana temporaria* were recorded under plastic sheeting during the survey (see Photograph 2). The pond adjacent to the site only provides limited opportunities for this group due to the lack of vegetation. Pond P1 is considered to be of below average quality for Great Crested Newts (see Table 4.1 below). It is considered that the boundary scrub within the site offers some opportunities for amphibians during the terrestrial phase, particularly for shelter, hibernation and foraging. Overall, however, the presence of Great Crested Newts is not likely.

Index	Pond P1
Location	
A = optimal	в
B = marginal	В
C = unsuitable	
Pond Area (m <sup>2</sup> )	10
Permanence	
1 = never dries	
2 = rarely dries	1
3 = sometimes dries	
4 = dries annually	
Water Quality	2
1 = good	3

2 = moderate 3 = poor 4 = bad	
Shade (% Perimeter)	40
Fowl	Absent
Fish	
1 = absent	
2 = possible	1
3 = minor	
4 = major	
Pond Count	4
Terrestrial Habitat	
1 = good	
2 = moderate	2
3 = poor	
4 = none	
Macrophytes (%, Excluding Duckweed)	0
HSI	0.54
Pond Suitability	Below Average

**Table 4.1**. Habitat Suitability Index Results.

- 4.9.2. Eight records of Great Crested Newt were returned by the data search within the last 15 years. The closest and most recent record relates to a location approximately 0.6km south of the site and dates from 2014. Five records were returned for Palmate Newt *Lissotriton helveticus*. The closest record relates to a location approximately 1.7km southeast of the site and dates from 2006. The most recent record dates from 2009 and relates to a location approximately 2.9km northeast of the site. Thirty-three records of Smooth Newt *Lissotriton vulgaris* were returned by KMBRC. The closest record relates to the presence of this species at a location approximately 0.6km south of the site and dates from 2003. The most recent record dates from 2015 and relates to a location approximately 1.8km northwest of the site.
- 4.9.3. Thirty records were returned for Common Toad *Bufo bufo*. The closest record relates to the presence of Common Toad at a location approximately 0.4km west of the site and dates from 2008. The most recent record dates from 2013 and relates to a location 1.8km northwest of the site. Sixty records of Common Frog were returned by the data search. The closest record relates to a location approximately 0.6km southeast of the site and dates from 2011. The most recent record dates from 2017 and relates to a location within the 1km grid square approximately 1.1km south of the site.

# 4.10. Invertebrates

- 4.10.1. Given the habitats present it is likely a varied assemblage of common invertebrate species would be present within the site.
- 4.10.2. A single record for Stag Beetle *Lucanus cervus* was returned by the data search. The record relates to a location approximately 2.3km southwest of the site and dates from 2007. It is unclear whether the paucity of invertebrate records relates to a lack of suitable habitats in the local area rather than under-recording of invertebrate species.

# 5. ECOLOGICAL EVALUATION

## 5.1. The Principles of Ecological Evaluation

- 5.1.1. The guidelines for ecological evaluation produced by CIEEM propose an approach that involves professional judgement, but makes use of available guidance and information, such as the distribution and status of the species or features within the locality of the project.
- 5.1.2. The methods and standards for site evaluation within the British Isles have remained those defined by Ratcliffe<sup>4</sup>. These are broadly used across the United Kingdom to rank sites so priorities for nature conservation can be attained. For example, current Sites of Special Scientific Interest (SSSI) designation maintains a system of data analysis that is roughly tested against Ratcliffe's criteria.
- 5.1.3. In general terms, these criteria are size, diversity, naturalness, rarity and fragility, while additional secondary criteria of typicalness, potential value, intrinsic appeal, recorded history and the position within the ecological / geographical units are also incorporated into the ranking procedure.
- 5.1.4. Any assessment should not judge sites in isolation from others, since several habitats may combine to make it worthy of importance to nature conservation.
- 5.1.5. Further, relying on the national criteria would undoubtedly distort the local variation in assessment and therefore additional factors need to be taken into account, e.g. a woodland type with a comparatively poor species diversity, common in the south of England, may be of importance at its northern limits, say, in the border country.
- 5.1.6. In addition, habitats of local importance are often highlighted within a local Biodiversity Action Plan (BAP). The Kent BAP has been considered as part of this assessment and is referenced where relevant.
- 5.1.7. Levels of importance can be determined within a defined geographical context from the immediate site or locality through to the international level.
- 5.1.8. The legislative and planning policy context are also important considerations and have been given due regard throughout this assessment.

# 5.2. Habitat Evaluation

**Designated Sites** 

- 5.2.1. **Statutory Sites**: The nearest Site of Special Scientific Interest (SSSI) is Rusthall Common SSSI, which is designated for its geological importance.
- 5.2.2. The closest SSSI designated for biological reasons is located approximately 4km south of the site. Eridge Park SSSI comprises parkland and adjacent ancient woodland on the lower Tunbridge Wells Sandstone

<sup>&</sup>lt;sup>4</sup>Ratcliffe, D A (1977). A Nature Conservation Review: The Selection of Study Areas of Biological National Importance to Nature Conservation in Britain. Two Volumes. Cambridge University Press, Cambridge.

and underlying Wadhurst Clay. It contains one of the richest epiphytic lichen floras of any single park in Britain. The variety of habitats present also support diverse insect and bird communities.

- 5.2.3. Eridge Green SSSI is also located approximately 4km south of the site and is an area of ancient woodland which lies on sandstone outcrops. Eridge Green SSSI supports notable species of flora including the Tunbridge Filmy Fern *Hymenophyllum tunbrigense*, the mosses *Dicranum scottianum* and *Orthodontium gracile* and the liverworts *Scapania umbrosa*, *Scapania gracilis* and *Harpanthus scutatus*.
- 5.2.4. Hilbert Woods Local Nature Reserve (LNR) lies approximately 2.7km east of the site. Hilbert Woods LNR is designated for its areas of ancient woodland.
- 5.2.5. Owing to their location relative to the site, beyond roads, existing development and open fields, the proposed development of the site is not likely to have an adverse effect on these designated sites.
- 5.2.6. **Non-statutory Sites:** Rusthall Common, part of the Rusthall and Tunbridge Wells Common Local Wildlife Site (LWS), is located approximately 0.4km south of the site at its closest point.
- 5.2.7. Broomhill and Reynold Lane Pastures LWS lies approximately 0.5km northeast of the site and contains areas of ancient and semi-natural woodland and plantation on an ancient woodland site.
- 5.2.8. Development of the site is not likely to have a significant adverse effect on any of these non-statutory designations, owing to the small-scale nature of the proposal, the distance involved and the intervening land use.

# Habitats

- 5.2.9. The trees are of some elevated nature conservation interest in the context of the site and its immediate locality. These are largely to be retained as part of the proposed development.
- 5.2.10. The fruit trees within the site may be part of a former orchard. Traditional Orchards are a priority habitat under section 41 of the Natural Environment and Rural Communities Act 2006. The NERC Act 2006 requires the Secretary of State to:

...take such steps as appear...to be reasonably practicable to further the conservation of the living organisms and types of habitat included in any list published under this section, or...promote the taking by others of such steps.

5.2.11. The JNCC<sup>5</sup> describes Traditional Orchards in the following terms:

Traditional orchards are defined, for priority habitat purposes, as groups of fruit and nut trees planted on vigorous rootstocks at low densities in permanent grassland; and managed in a low intensity way. Cobnut plats are also included.

<sup>&</sup>lt;sup>5</sup> JNCC (2008). UK Biodiversity Action Plan; Priority Habitat Descriptions. Traditional Orchards. Joint Nature Conservation Committee, Peterborough.

The minimum size of a traditional orchard is defined as five trees with crown edges less than 20m apart. However, the potential biological and genetic interest of sites with fewer trees, such as relict orchards and individual trees within gardens, is noted. Where appropriate these should be considered as potential restoration sites. It is recognised that other sites which fall outside the definition, such as organic bush orchards and fruit collections in walled gardens, may also have biodiversity value, as well as historic, cultural and genetic importance.

- 5.2.12. Less than five fruit trees are present in the current case, and it is not considered that the site would meet the definition of a Traditional Orchard. Nonetheless, the trees are of ecological interest in the context of the site and the immediate locality, and it is recommended that they be retained as part of the development wherever possible, both for their intrinsic interest and the habitat they offer for wildlife. It is recommended that new landscape planting include native fruit-bearing trees. The management of these new fruit trees should not include pesticides.
- 5.2.13. The amenity grassland and scrub are of limited ecological interest; and the majority of the habitat, including Building B1, is to be lost to the proposed development.

# 5.3. Faunal Evaluation

Bats

- 5.3.1. **Legislation.** All bats are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and included on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 ("the Habitats Regulations"). These include provisions making it an offence:
  - Deliberately to kill, injure or take (capture) bats;
  - Deliberately to disturb bats in such a way as to:-
    - (i) be likely to impair their ability to survive, to breed or rear or nurture their young; or to hibernate or migrate; or
    - (ii) affect significantly the local distribution or abundance of the species to which they belong;
  - To damage or destroy any breeding or resting place used by bats;
  - Intentionally or recklessly to obstruct access to any place used by bats for shelter or protection (even if bats are not in residence).
- 5.3.2. The words deliberately and intentionally include actions where a court can infer that the defendant knew that the action taken would almost inevitably result in an offence, even if that was not the primary purpose of the act.
- 5.3.3. The offence of damaging (making worse for the bat) or destroying a breeding site or resting place is an absolute offence. Such actions do not have to be deliberate for an offence to be committed.
- 5.3.4. **Site Usage.** The Ivy coverage on the Sycamores on the eastern boundary is not considered to be mature enough to support any bat roosting potential. Building B1 provides low bat roosting potential owing to damaged tiles, gaps in the walls and significant Ivy coverage. The habitats

within the site offer good potential commuting and foraging resources for bats, particularly around the mature trees.

- 5.3.5. **Mitigation and Enhancements.** The majority of these features are being removed; given the small size of the site the development is not likely to have a significant effect on the overall foraging resources of the area.
- 5.3.6. A single emergence survey is recommended if Building B1 is proposed to be demolished; such a survey could be undertaken between May and August / September inclusive. Boundary features should not be lit so as not to discourage bats from moving through or foraging on the site.
- 5.3.7. As an enhancement, bat boxes could be installed on trees retained within the site. Suitable designs include the Schwegler 1FF Bat Box and 3FN Small Bat Box.

# Badgers

- 5.3.8. **Legislation.** The Protection of Badgers Act 1992 consolidates the previous Badgers Acts of 1973 and 1991. The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is, in fact, common over most of Britain, with particularly high populations in the southwest.
- 5.3.9. As well as protecting the animal itself, the 1992 Act also makes the intentional or reckless destruction, damage or obstruction of Badger setts an offence. A sett is defined as, *"any structure or place which displays signs indicating current use by a Badger"*, by current Natural England guidance.
- 5.3.10. In addition, the intentional elimination of sufficient foraging area used to support a known social group of Badgers may, in certain circumstances, be construed as an offence by constituting 'cruel ill treatment' of a Badger.
- 5.3.11. **Site Usage.** It is apparent that mammals use the site, though signs recorded are likely to be due to Foxes. It is possible that Badgers disperse through the site due to the close proximity of the records returned by the data search.
- 5.3.12. **Mitigation.** The potential exists for Badgers to roam into areas where construction is underway and become trapped in trenches and / or excavate new setts in piles of subsoil or disturb chemicals that may be being used for development. The following measures will be followed throughout the construction phase of development:
  - All site personnel will be made aware of the potential presence of this species and the appropriate steps required to ensure the safety of Badgers while on site;
  - Inclines and mounds of loose soil present ideal habitats for Badgers seeking to establish setts; therefore, during the construction process, all dug ground and loose soil will be levelled and compacted wherever possible. This will prevent Badgers from attempting to excavate setts prior to completion of the works and causing potential disruption;

- Any mounds of material will be regularly checked for signs of Badgers, especially before disturbance or movement;
- Planks will be left in any uncovered trenches to provide any Badger that may stray onto the site with an escape route;
- Any open trenches will be checked at the beginning of each day, to ensure that Badgers are not present, and at the end of each day, to ensure that the means of escape remain in place;
- Tools and loose materials will be stored in an appropriate container in order to reduce the risk of Badgers coming onto site and injuring themselves;
- No fires or chemicals should be left unsupervised anywhere on the site; and
- Any open pipework greater than 150mm outside diameter will be blanked off at the end of each working day to prevent Badgers from entering the pipework.
- 5.3.13. In the event that any suspected Badger activity is observed during construction, work in the area would cease and Ecology Solutions would be contacted for advice.

# Hedgehogs

5.3.14. **Legislation.** Hedgehogs a species of principal importance for nature conservation in England under section 41 of the NERC Act 2006. The NERC Act 2006 requires the Secretary of State to:

...take such steps as appear...to be reasonably practicable to further the conservation of the living organisms and types of habitat included in any list published under this section, or...promote the taking by others of such steps.

- 5.3.15. **Site Usage.** No Hedgehogs were recorded during survey work, but the scrub habitat is suitable, and they are known to be present in the local area.
- 5.3.16. **Mitigation and Enhancement.** New residential gardens will offer new potential habitat for small mammals, including Hedgehogs. It is recommended that garden fences are provided with a 'Hedgehog Gateway', a 13cm x13cm section of fence cut out at the base, to facilitate dispersal for Hedgehogs and other small animals. This will enhance the permeability of the new development for wildlife.

### Birds

5.3.17. **Legislation.** Section 1 of the Wildlife and Countryside Act 1981 (as amended) is concerned with the protection of wild birds, whilst Schedule 1 lists species that are protected by special penalties. All species of birds receive general protection whilst nesting.

- 5.3.18. **Site Usage.** The site supports an assemblage of common species, but there is no evidence to suggest any notable species would be present. The significant Ivy present throughout the site provides suitable nesting habitat for a range of common species. A number of old nest boxes are present on site. The insides of the boxes are heavily cobwebbed.
- 5.3.19. **Mitigation and Mitigation.** Wherever possible, the removal of suitable nesting habitat should be completed outside the nesting bird season which is March to July inclusive. Where this is not possible a survey for nesting birds by an ecologist would be required prior to removal.
- 5.3.20. As an enhancement bird boxes could be installed on trees retained within the site or on new buildings. Schwegler Sparrow Terraces are recommended on buildings post-development.

# Reptiles

- 5.3.21. **Legislation.** All reptile species receive protection under legislation in the UK. Smooth Snake *Coronella austriaca* and Sand Lizard *Lacerta agilis* receive full legal protection in England due to their status as scarce, rather local species. Which are highly unlikely to be present within the adjacent habitats.
- 5.3.22. The other reptile species, namely Slow Worm, Common Lizard, Grass Snake and Adder, are common and widespread across the country. As such, these species receive only partial protection under the Wildlife and Countryside Act 1981 (as amended) being protected from deliberate killing or injury, their habitat receiving no statutory protection.
- 5.3.23. **Site Usage.** The site currently presents some opportunities for hibernation in the form of log and rubble piles. Compost heaps adjacent to the north of the site also provide suitable hibernation opportunities.
- 5.3.24. **Mitigation.** It is recommended that the grassland sward is kept short prior to construction to ensure that no reptile constraint develops within this habitat. The removal of boundary scrub, log piles and other potential reptile habitat should be undertaken with care. If any reptiles are found work should stop immediately and Ecology Solutions should be contacted.

### Amphibians

- 5.3.25. **Legislation.** Great Crested Newts are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and included on Schedule 2 of the Conservation of Habitats and Species Regulations 2017. These include provisions making it an offence:
  - Deliberately to kill, injure or take (capture) Great Crested Newts;
  - Deliberately to disturb Great Crested Newts in such a way as to:-
    - (i) be likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or to hibernate or migrate; or
    - (ii) affect significantly the local distribution or abundance of the species to which they belong;

- To damage or destroy any breeding or resting place used by Great Crested Newts;
- Intentionally or recklessly to obstruct access to any place used by Great Crested Newts for shelter or protection.
- 5.3.26. Common Toads are listed as a species of principal importance under section 41 of the NERC Act 2006 and are afforded the same protection as Hedgehogs.
- 5.3.27. **Site Usage.** Four Common Frogs were recorded during the survey. The site currently offers foraging and hibernation opportunities for common amphibian species. The HSI of Pond P1 has shown it to be of below average suitability for Great Crested Newts. There are records of Great Crested Newt nearby, but it is not likely that they are using the site due to its isolation and the intervening residential land use from the ponds to the south, where the species has been previously recorded.
- 5.3.28. **Mitigation and Enhancements.** It is recommended that existing log piles are retained where possible and / or new log piles are created to retain opportunities for amphibians. The removal of boundary scrub, log piles and other habitat with the potential for amphibians should be undertaken with care.

# Invertebrates

- 5.3.29. **Legislation.** Stag Beetles are protected internationally, under the Habitats Directive Annex II. The species is also protected nationally under Schedule 5 of the Wildlife & Countryside Act (1981), making it illegal to trade in the species without an appropriate licence.
- 5.3.30. **Site Usage.** The site currently presents opportunities for a range of common invertebrate species. Stag Beetles have been recorded as present in the local area and there are habitats on site, particularly log piles, that would support this species.
- 5.3.31. **Mitigation.** It is recommended that the sandstone escarpment at the south of the site be retained owing to the habitat it offers for invertebrates. The retention or creation of log piles within the site would safeguard associated habitat opportunities for saproxylic invertebrates, such as Stag Beetles.

# 6. PLANNING POLICY CONTEXT

6.1. The planning policy framework that relates to nature conservation at the site is issued nationally through the National Planning Policy Framework (NPPF) and locally by Tunbridge Wells Borough Council.

# 6.2. National Policy

# National Planning Policy Framework

- 6.2.1. Guidance on national policy for biodiversity and geological conservation is provided by the NPPF, published in March 2012 and revised on 24 July 2018. It is noted that the NPPF continues to refer to further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system provided by Circular 06/05 (DEFRA / ODPM, 2005) accompanying the now-defunct Planning Policy Statement 9 (PPS9).
- 6.2.2. The key element of the NPPF is that there should be "a presumption in favour of sustainable development" (paragraphs 10 to 11). It is important to note that this presumption "does not apply where development requiring Appropriate Assessment because of its potential impact on a habitats site is being planned or determined" (paragraph 177). 'Habitats site' has the same meaning as the term 'European site' as used in the Habitats Regulations 2017.
- 6.2.3. A number of policies in the NPPF are comparable to those in PPS9, including reference to minimisation of impacts to biodiversity and provision of net gains to biodiversity where possible (paragraph 170).
- 6.2.4. The NPPF also considers the strategic approach that Local Authorities should adopt with regard to the protection, maintenance and enhancement of green infrastructure, priority habitats and ecological networks, and the recovery of priority species.
- 6.2.5. Paragraphs 174 to 176 of the NPPF comprise a number of principles that Local Authorities should apply, including encouraging opportunities to incorporate biodiversity in and around developments; provision for refusal of planning applications if significant harm cannot be avoided, mitigated or compensated for; applying the protection given to European sites to potential SPAs, possible SACs, listed or proposed Ramsar sites and sites identified (or required) as compensatory measures for adverse effects on European sites; and the provision for the refusal for developments resulting in the loss or deterioration of 'irreplaceable' habitats unless there are 'wholly exceptional reasons' (for instance, infrastructure projects where the public benefit would clearly outweigh the loss or deterioration of habitat) and a suitable compensation strategy exists.
- 6.2.6. National policy therefore implicitly recognises the importance of biodiversity and that with sensitive planning and design, development and conservation of the natural heritage can co-exist and benefits can, in certain circumstances, be obtained.

# 6.3. Local Policy

Tunbridge Wells Borough Local Plan (Adopted March 2006)

- 6.3.1. Much of this Local Plan has been superseded by other planning policy documents, but a number of policies have been 'saved' following the direction of the Secretary of State. Two of these are concerned with nature conservation.
- 6.3.2. Policy EN13 Tree and Woodland Protection states that development would not be permitted where it would adversely affect trees subject to a Tree Preservation Order or areas identified as ancient woodland or within a conservation area, unless the removal would be good arboricultural practice, or the benefits of the proposal outweigh the amenity value of a tree.
- 6.3.3. Policy EN15 is concerned with the protection of Local Nature Reserves and non-statutory nature conservation sites. Development that would adversely affect such sites would only be permitted where the need for the development would outweigh the nature conservation interest of the site, there is no satisfactory alternative, and the design of the scheme minimises the potential impact on the important features of the site.

*Tunbridge Wells Borough Local Development Framework: Core Strategy Development Plan Document (Adopted June 2010)* 

- 6.3.4. The Core Strategy contains a single policy (Core Policy 4) concerned in part with nature conservation.
- 6.3.5. This policy requires a hierarchical approach to the protection of nature across the sites and habitats of national, regional and local importance within the Borough, with the intention to avoid net loss of biodiversity. Opportunities for biodiversity enhancements will be identified and pursued through the creation, protection, enhancement, extension and management of green corridors and green infrastructure networks to improve connectivity between habitats.

New Local Plan

6.3.6. The council has started to prepare a new Local Plan to guide future development up to 2033. The new Local Plan will replace the existing Local Plan 2006, Core Strategy and associated Development Plan Documents (DPDs). At the time of writing no draft documents are available for review.

# 6.4. Discussion

6.4.1. Development of the site is not likely to have a significant adverse effect on designated sites in the locality. Overall, it is considered that the development site does not possess significant ecological interest. Mitigation measures have been recommended to minimise any potential adverse effects and there is good scope within the proposals to deliver ecological enhancements for local wildlife, while safeguarding the existing interest. It is therefore considered that development of the site would be in accordance with relevant planning policy at the national and local level.

# 7. SUMMARY AND CONCLUSIONS

- 7.1. Ecology Solutions was commissioned in March 2018 by Milliken and Company to undertake an ecological assessment of land behind the Red Lion, Rusthall, Kent (see Plan ECO1), hereafter referred to as the site.
- 7.2. The proposals for the site comprise three new residential properties with associated green space and landscaping.
- 7.3. The site is situated to the north of Lower Green Road on the northern edge of the village of Rusthall, approximately 2.2km west of Royal Tunbridge Wells. The local area is characterised by residential properties and small gardens, with mixed farmland and areas of woodland present to the northwest.
- 7.4. The site is dominated by amenity grassland bisected by a close-board fence, with areas of scrub and trees at the boundaries. A small area of disturbed ground is also present within a play area. The site is bounded on the east and south by walls covered in Ivy *Hedera helix*. A pond is present adjacent to the site's western boundary.
- 7.5. The site was subject to an extended Phase 1 habitat survey in March 2018; a desk-based study was also undertaken.
- 7.6. **Statutory Sites:** The nearest Site of Special Scientific Interest (SSSI) is Rusthall Common SSSI, which is designated for its geological importance. The closest SSSI designated for biological reasons is located approximately 4km south of the site. Eridge Park SSSI comprises parkland and adjacent ancient woodland and contains one of the richest epiphytic lichen floras of any single park in Britain. Eridge Green SSSI is also located approximately 4km south of the site and is an area of ancient woodland which lies on sandstone outcrops. Hilbert Woods Local Nature Reserve (LNR) lies approximately 2.7km east of the site. Owing to their location relative to the site, beyond roads, existing development and open fields, the proposed development of the site is not likely to have an adverse effect on these designated sites.
- 7.7. **Non-statutory Sites:** Rusthall Common, part of the Rusthall and Tunbridge Wells Common Local Wildlife Site (LWS), is located approximately 0.4km south of the site at its closest point. Broomhill and Reynold Lane Pastures LWS lies approximately 0.5km northeast of the site. Development of the site is not likely to have a significant adverse effect on any of these non-statutory designations, owing to the small-scale nature of the proposal and the intervening land use.
- 7.8. **Habitats.** The trees are of some elevated nature conservation interest in the context of the site and its immediate locality. These are largely to be retained as part of the proposed development.
- 7.9. The fruit trees within the site may be part of a former orchard. Traditional Orchards are a priority habitat under section 41 of the Natural Environment and Rural Communities Act 2006, but since less than five trees are present in the current case, it is not considered that the site would meet the JNCC definition for this habitat. Nonetheless, the trees are of ecological interest in the context of the site and the immediate locality, and it is recommended that they be retained as part of the development wherever possible, both for their intrinsic interest and the habitat they offer for wildlife. It is recommended that new landscape planting

include native fruit-bearing trees. The management of these new fruit trees should not include pesticides.

- 7.10. The amenity grassland and scrub are of limited ecological interest; and the majority of the habitat, including Building B1, is to be lost to the proposed development.
- 7.11. **Bats.** Building B1 provides low potential for roosting bats due to the significant lvy present. The habitats within the site present potential commuting and foraging resources for bats, particularly around the mature trees. The majority of these features are being retained and given the small size of the site the development is not likely to have a significant effect on the overall foraging resources of the area. A single emergence survey is recommended if Building B1 is proposed to be demolished; this could be undertaken between May and August / September. Boundary features should not be lit so as not to discourage bats from moving through or foraging on the site. As an enhancement, bat boxes could be installed on trees retained within the site. Suitable designs include the Schwegler 1FF Bat Box and 3FN Small Bat Box.
- 7.12. **Badgers.** It is apparent that mammals use the site, though signs recorded are likely to be due to Foxes. It is possible that Badgers disperse through the site due to the close proximity of the records returned by the data search.
- 7.13. Best practice measures would be adopted during construction (in terms of site management, storage of materials, etc.) to avoid any harm to Badgers. In the event that any suspected Badger activity is observed during construction, work in the area would cease and Ecology Solutions would be contacted for advice.
- 7.14. **Hedgehogs.** No Hedgehogs were recorded during survey work, but the scrub habitat is suitable, and they are known to be present in the local area. New residential gardens will offer new potential habitat for small mammals, including Hedgehogs. It is recommended that garden fences are provided with a 'Hedgehog Gateway', a 13cm x13cm section of fence cut out at the base, to facilitate dispersal for Hedgehogs and other small animals. This will enhance the permeability of the new development for wildlife.
- 7.15. **Birds.** The site supports an assemblage of common species, but there is no evidence to suggest any notable species would be present. The significant Ivy present throughout the site provides suitable nesting habitat for a range of common species. A number of old nest boxes are present on site. The insides of the boxes are heavily cobwebbed. Wherever possible, the removal of suitable nesting habitat should be completed outside the nesting bird season which is March to July inclusive. Where this is not possible a survey for nesting birds by an ecologist would be required prior to removal. As an enhancement bird boxes could be installed on trees retained within the site or on new buildings. Schwegler Sparrow Terraces are recommended on buildings post-development.
- 7.16. **Reptiles.** The site currently presents some opportunities for hibernation in the form of log and rubble piles. Compost heaps adjacent to the north of the site also provide suitable hibernation opportunities. Overall, however, it is considered that reptiles are unlikely to be present due to the prevailing management of the site, and it is recommended that the grassland sward be kept short prior to construction to ensure that no reptile constraint develops. The removal of boundary scrub, log piles and other potential reptile habitat should be undertaken

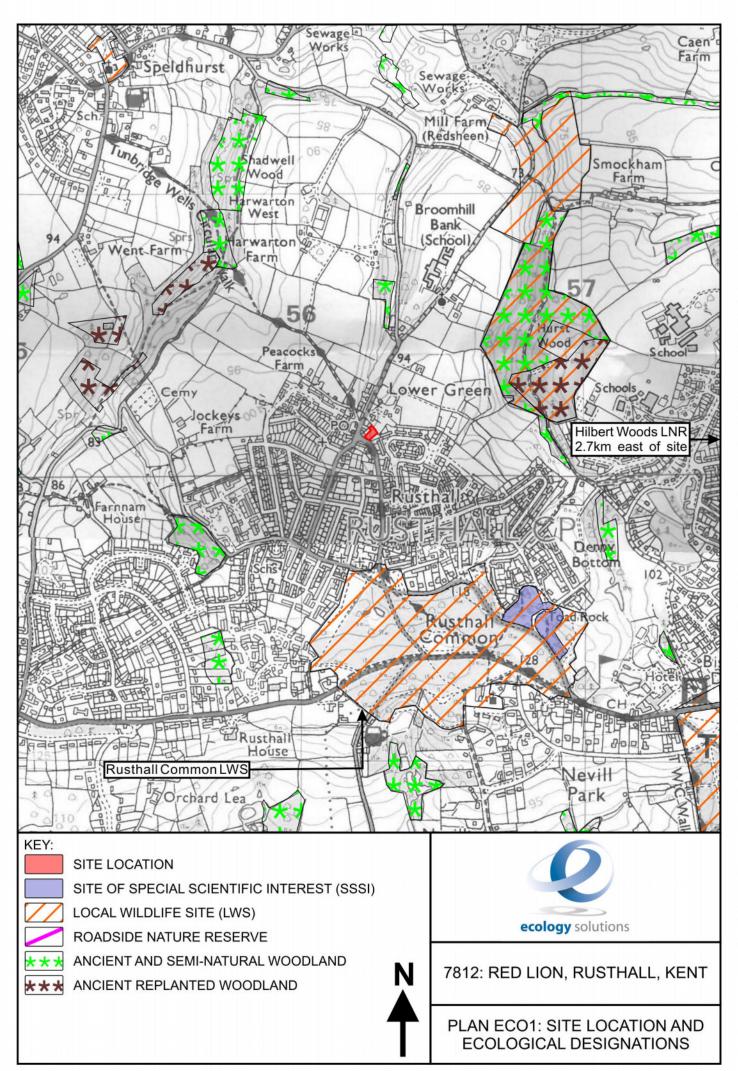
with care. If any reptiles are found work should stop immediately and Ecology Solutions should be contacted.

- 7.17. **Amphibians.** Four Common Frogs were recorded during the survey. The site currently offers foraging and hibernation opportunities for common amphibian species. The Habitat Suitability Index of Pond P1 has shown it to be of below average suitability for Great Crested Newts. There are records of Great Crested Newt nearby, but it is not likely that they are using the site due to its isolation and the intervening residential land use from the ponds to the south, where the species has been previously recorded. It is recommended that existing log piles be retained where possible and / or new log piles are created to retain opportunities for amphibians. The removal of boundary scrub, log piles and other habitat with the potential for amphibians should be undertaken with care.
- 7.18. **Invertebrates.** The site currently presents opportunities for a range of common invertebrate species. Stag Beetles have been recorded as present in the local area and there are habitats on site, particularly log piles, that would support this species. It is recommended that the sandstone escarpment at the south of the site be retained owing to the habitat it offers for invertebrates. The retention or creation of log piles within the site would safeguard associated habitat opportunities for saproxylic invertebrates, such as Stag Beetles.
- 7.19. Development of the site is not likely to have a significant adverse effect on designated sites in the locality. Ecological interest within the site is largely focused on the mature trees and fruit trees, with the amenity grassland, disturbed ground and scrub being of limited intrinsic interest. The potential for protected species to be present is acknowledged, and measures to quantify and address this have been proposed. The site would deliver ecological enhancements for local wildlife, while safeguarding most of the existing interest. It is therefore considered that development of the site would be in accordance with relevant planning policy at the national and local level.

PLANS

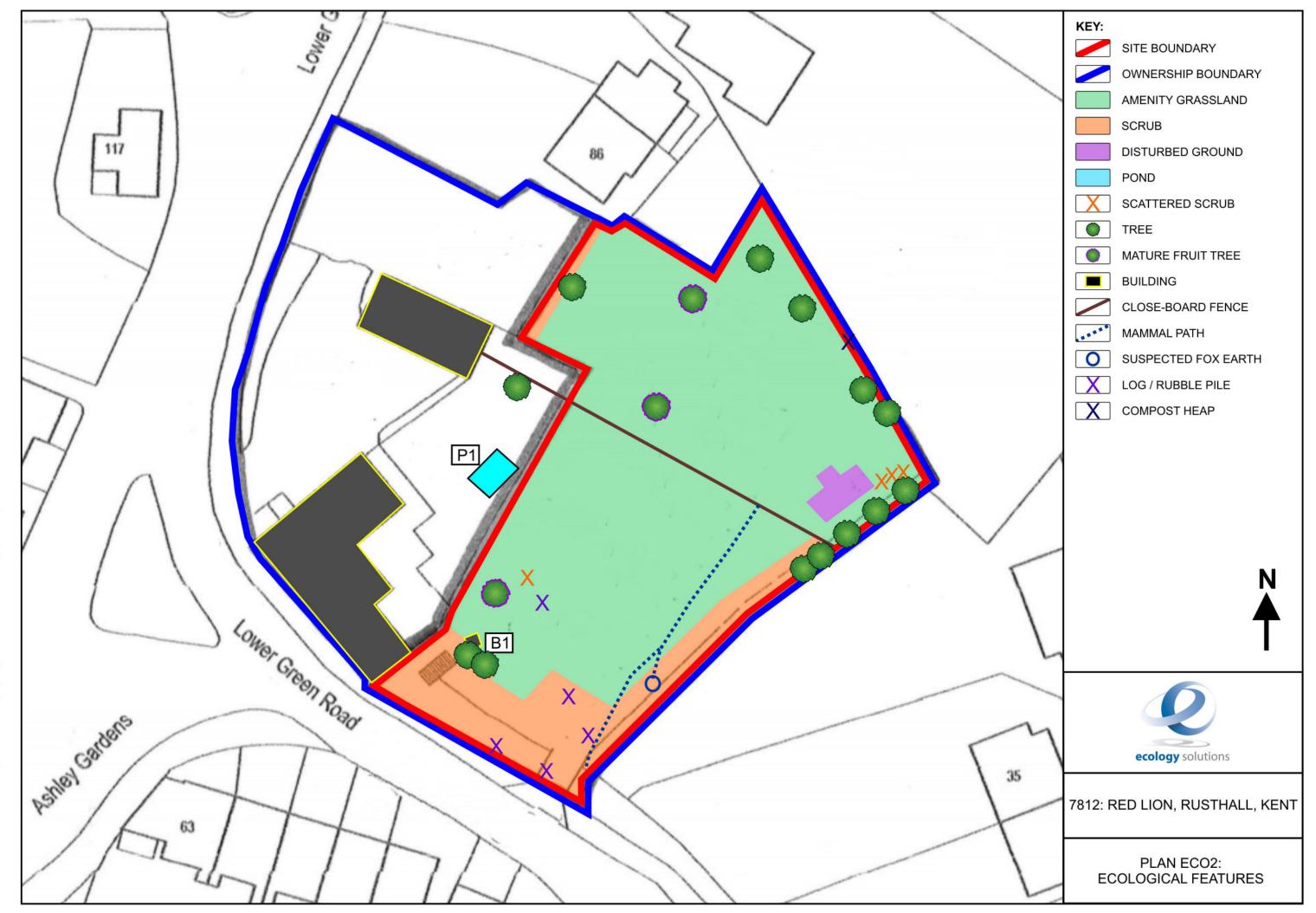
# PLAN ECO1

Site Location and Ecological Designations



# PLAN ECO2

**Ecological Features** 



PHOTOGRAPHS

PHOTOGRAPH 1: Amenity Grassland with Mature Trees on Eastern Boundary



# PHOTOGRAPH 2: Scrub in South of Site



PHOTOGRAPH 3: Sandstone Escarpment on Southern Boundary



# PHOTOGRAPH 4: Building B1



PHOTOGRAPH 5: Disturbed Ground under Play Area



# PHOTOGRAPH 6: Pond P1



APPENDICES

# **APPENDIX 1**

Information downloaded from Multi-Agency Geographic Information for the Countryside (MAGIC)

# MAGiC

# 7812: Red Lion, Rusthall



II Jane 20	
N 184	
n 10-10-	
1AS	
1 300	L
tt's	
112 1	
LNR)	
dT	
A CA	
Bar ett .	
L Mar -	
test. Small	
Seco. Ati	
但重建源	
- P Refer to	
24.00	
rough	
rough	
SSI)	
The VA	
5/ \-5/18	
Section .	
35 11 JAN	
SHAME.	
801910ZI	
ASSA A	l
1. S. S. M.	l
A Can Sta	L
rt same	l
rt Is )/	L
IS A BASH	ſ
153650	L
1 A State	ſ
C A PART	
Sec. Con	l
ALC: NO	l
1 BOOTS	
1.6.7	
Wn.M	
No.	
T (PPECA)	
1000000	
之間必要	
1200	
H M PERL	
MARTIN ST	
1.2013月27-3	
利用を設置し	
一個言語祖	
13430.763	
A Strain	
The same	
101-1323	
1 4 5 5 10	
de la la	
C-1310	
COST ON	
1000	
alaghar at	
01	
5 38 G	
State Y	
deoin a second	ſ
S. USAN)	L
SAMON N	L
Sec. all	l
16829	l
	L
	l
- CHERRY A	
FIRMA	
TTO	
den UT	
den UT	
den ur -	
den UT	
den UT	
den U	

Legend					
_					
	Reserves (England)				
National Nati (England)	ure Reserves				
📘 Ramsar Sites	s (England)				
Sites of Spec (England)	cial Scientific Interest				
Special Areas (England)	s of Conservation				
Special Prote	ection Areas				
(Éngland) Ancient Woodlar	d (England)				
Ancient and					
Woodland					
Ancient Repl	anted Woodland				
Projection = OSGB36 xmin = 550700	0 0.4	0.8			
ymin = 137500		0.8			
xmax = 561600 ymax = 143000	km				
Map produced by MAGIC on 19 March, 2018. Copyright resides with the data suppliers and the map					
must not be reproduced without their permission. Some					
information in MAGIC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for					

details as information may be illustrative or representative

rather than definitive at this stage.



ecology solutions ltd • cokenach estate • barkway • royston • hertfordshire • SG8 8DL t 01763 848084 e east@ecologysolutions.co.uk w www.ecologysolutions.co.uk