CHISWELL GREEN

Preliminary Ecological Appraisal

ECO02186
A
May 2022

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Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
A	Draft, for comment	Nikki Hulse/Elizabeth White	Kerry Shakespeare	Nick Betson	10/05/2022

Approval for issue

NB	2 August 2022

Prepared for:

Sir Martin Holderness

EXECUTIVE SUMMARY

- RPS was commissioned by Sir Martin Holderness to undertake a Preliminary Ecological Appraisal (PEA) of an area of land off Ragged Hall Lane, Chiswell Green, St Albans, AL2 3NP. This comprised a desk study, Phase 1 Habitat Survey, and an ecological scoping survey, which assessed the potential of the site to support species of conservation concern or other species which could present a constraint to the development of the site.
- The proposal for the site is the erection of 7 Family Detached Houses and Associated Works.
- The site had recently been cleared at the time of the survey. Small immature trees had been removed to stump level and dense scrub had been flayed.
- The site comprises predominantly of bare ground with some areas of scrub and scattered trees.
- There are no statutory designated sites and ten non-statutory designated sites within 2 km of the site. The closest non-statutory site is Park Wood Local Wildlife Site (LWS), 0.14 km from the development boundary, which is designated for its ancient woodland.
- The scattered trees and scrub on site offer suitable habitat to support breeding birds. Therefore, the removal of any habitat should be undertaken outside of the breeding bird season (mid-February - September).
- The site offers suitable habitat for reptiles. Recommendations for further survey work for these species are provided for within this report.
- The site offers low value habitat for commuting/foraging bats. Recommendations have been made to enhance the site post development.
- An assessment of Biodiversity Net Gain (BNG) of the proposed development is recommended in line with the National Planning Policy.
- A range of enhancement measures will be included as part of the proposed development. This includes adjacent land (other land within the Applicant's ownership), totalling 0.211 ha to be designated for ecological enhancements for the benefit for local wildlife.

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1 INTRODUCTION

1.1 Purpose and scope of this report

1.1.1 RPS was commissioned by Sir Martin Holderness to undertake a Preliminary Ecological Appraisal (PEA) of an area of land off Ragged Hall Lane, Chiswell Green, AL2 3NP.

1.1.2 To undertake an initial assessment of the potential ecological impact of the proposals, a desk study, Phase 1 Habitat Survey, and a preliminary protected species assessment were carried out. This is termed as a Preliminary Ecological Appraisal Report (PEAR) in accordance with CIEEM (2017). This assessment is considered 'preliminary' until any required protected species, habitat or invasive species surveys are completed, and the results incorporated into a final Ecological Appraisal or Ecological Impact Assessment (EcIA) which supports the planning application.

1.1.3 The PEA aims to:

- undertake a desk-based review of designated sites and records of protected species and other species that could present a constraint;
- map and assess the habitats present on site;
- assess the site for potential to support protected species or other species that could present a constraint, and make appropriate recommendations for further survey work if necessary;
- provide outline options for mitigation measures as appropriate; and
- make recommendations for appropriate biodiversity enhancements in line with national and local planning policy.

1.1.4 This report pertains to these results only; recommendations included within this report are the professional opinion of an experienced ecologist and therefore the view of RPS. The surveys and desk-based assessments undertaken as part of this review and subsequent report including the Ecological Appraisal Notes are prepared in accordance with the British Standard for Biodiversity Code of Practice for Planning and Development (BS42020:2013).

1.2 Study area

1.2.1 The site is located towards the north-west of Chiswell Green village on the North Orbital Road. The National Grid coordinates for the centre of the site are TL 130 052. The site was predominantly bare ground with some broadleaved scattered trees, dense scrub and species-poor hedge.

1.2.2 The immediate surrounds of the site are rural in nature to the north, west and east comprising a mosaic of agricultural fields and woodland. To the southeast is the residential village of Chiswell Green.

1.3 Development proposals

1.3.1 The development proposals involve the development of the site from pastureland to a residential area with the erection of 7 Family Detached Houses and Associated Works.

1.4 Legislation and policy

1.4.1 Relevant legislation, policy guidance and both Local and National Biodiversity Action Plans (BAPs) are referred to throughout this report where appropriate. Their context and application is explained in the relevant sections of this report.

1.4.2 The relevant articles of legislation are:

- The Environment Act, 2021;
- The National Planning Policy Framework (NPPF, 2021);
- ODPM Circular 06/2005 (retained as Technical Guidance on NPPF 2021);
- The Conservation of Habitats and Species Regulations 2017 (as amended);
- The Wildlife and Countryside Act 1981 (as amended);
- The Protection of Badgers Act 1992;
- The Countryside and Rights of Way Act 2000;
- The Hedgerow Regulations 1997; and
- The Natural Environment and Rural Communities Act 2006.

1.4.3 A summary of legislation relevant to protected or other species identified as potential constraints in this report is provided in Appendix A.

2 METHODS

2.1 Desk Study

2.1.1 Ecological records within a 2 km radius of the site were requested from Herts Environmental Records Centre (HERC). Data requests were limited to records for protected species recorded within the last ten years and sites of nature conservation interest within 2 km of the site. This included a review of existing statutory sites of nature conservation interest, such as Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs), Special Area of Conservation (SACs) and National Nature Reserves (NNRs), and non-statutory sites, such as Sites of Importance for Nature Conservation (SINCs) and Local Wildlife Sites (LWSs).

2.2 Ecological Appraisal

2.2.1 The Ecological Appraisal consisted of two components: a Phase 1 Habitat Survey and a scoping survey for protected species and other species of conservation concern which could present a constraint to development.

2.2.2 The Phase 1 Habitat Survey followed the standard methodology (JNCC, 2010), and as described in the Guidelines for Preliminary Ecological Assessment (CIEEM, 2017). In summary, this comprised walking over the survey area and recording the habitat types and boundary features present. This was undertaken by RPS ecologist, Nikki Hulse on 25th January 2022, who is experienced in undertaking Phase 1 Habitat Surveys.

2.2.3 The site was assessed for its suitability to support protected species, in particular great crested newts *Triturus cristatus*, reptiles, birds, badger *Meles meles*, bats, and other species of conservation importance that could pose a planning constraint.

2.2.4 The surveyor looked for evidence of use including signs such as burrows, droppings, footprints, paths, hairs, refugia and particular habitat types known to be used by certain groups such as ponds. Any mammal paths were also noted down and where possible followed. Fence boundaries were walked to establish any entry points or animals' signs such as latrines. Areas of bare earth were inspected for mammal prints. Areas of habitat considered suitable for protected species or those of conservation interest were recorded.

2.2.5 The site had recently been cleared at the time of the survey. Small immature trees had been removed to stump level and dense scrub had been flayed. From reviewing google maps the site comprise of dense scrub and small immature trees in December 2021 (GoogleMaps 2022).

2.3 Impact Appraisal

2.3.1 The overall ecological appraisal is based on the standard best practice methodology provided by the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017). The assessment identifies sites, habitats, species and other ecological features that are of value based on factors such as legal protection, statutory or local site designations such as Sites of Special Scientific Interest (SSSI) or Local Wildlife Sites (LWS) or inclusion on Red Data Book Lists or Biodiversity Action Plans.

2.3.2 The assessment also refers to planning policy guidance (e.g. NPPF) where relevant to relate the value of the site and potential impacts of development to the planning process, identifying constraints and opportunities for ecological enhancement in line with both national and local policy.

2.4 Limitations

Desk Based Assessment

2.4.1 The desk study data is third party controlled data, purchased for the purposes of this report only. RPS cannot vouch for its accuracy and cannot be held liable for any error(s) in these data.

Survey

2.4.2 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation and prediction of the natural environment.

2.4.3 The protected/notable species assessment provides a preliminary view of the likelihood of these species occurring on the site, based on the suitability of the habitat, known distribution of the species in the local area provided in response to our enquiries and any direct evidence on the site. It should not be taken as providing a full and definitive survey of any protected/notable species group.

2.4.4 The Phase 1 Habitat Survey was carried out outside of the optimal survey season (April to October). Although the survey was carried out at a sub-optimal time of year, it is considered that sufficient information was obtained to enable an accurate assessment of the site to be carried out, as the habitats that could support these species were identified.

Accurate Lifespan of Ecological Data

2.4.5 The majority of ecological data remain valid for only short periods due to the inherently transient nature of the subject. The survey results contained in this report are considered accurate for two years, assuming no significant considerable changes to the site conditions.

3 RESULTS

3.1 Designated Sites

3.1.1 There are no statutory designated sites for nature conservation value within 2 km of the site.

3.1.2 There are ten non-statutory sites located within the 2 km search radius of the site, the closest being Park Wood Local Wildlife Site (LWS) which lies 0.14 km to the west of the site.

3.1.3 A summary of these sites is provided in Table 3.1 below and their locations shown on Figure 3.1.

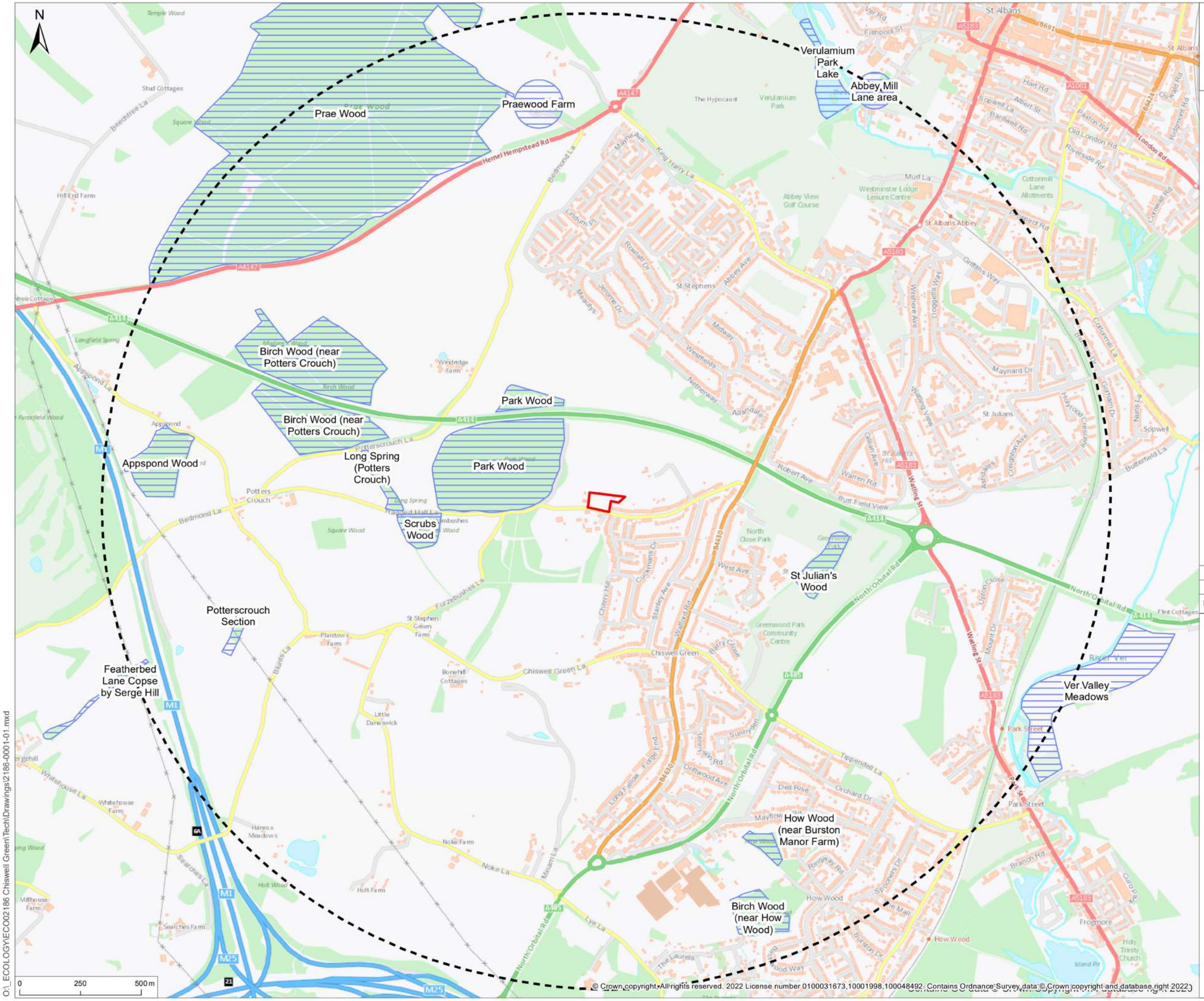
Table 3:1: Non-statutory sites within 2 km of the study area.

Site name	Type	Approx. area (ha)	Interest Features	Distance from site (km)
			Non-statutory Sites	
Park Wood (near Chiswell Green)	LWS	19.75	Large ancient woodland bisected by a road and almost completely replanted with conifers. The edge of the woodland retains a semi-natural canopy with a more diverse flora below. Remnant hedge banks are present to the boundary with some coppiced and laid trees including Beech and Hazel.	0.14
Scrubs Wood	LWS	2.09	Ancient semi-natural woodland supporting a high canopy dominated by Pedunculate Oak. The western side of the wood supports a more complex canopy with less Pedunculate Oak. Beech is frequent with occasional Wild Cherry. Along the wood margin to the north and south there are remnant wood banks with laid and coppiced Beech stubs.	0.60
Long Spring (Potters Crouch)	LWS	1.0	Thin strip of ancient woodland mostly replanted with Scots Pine and Beech in the north. A more natural canopy survives around the woodland edge and in an old disused pit in the south.	0.75
St Julian's Wood	LWS	2.55	Ancient semi-natural Pedunculate Oak, Hornbeam coppice-with-standards woodland with Beech, Ash and Holly. Old marl pits are present in the north. The wood is largely surrounded by old banks with some laid specimens, including Hornbeam.	0.79
How Wood (near Burston Manor Farm)	LWS	1.20	Remnant of ancient semi-natural Pedunculate Oak/Hornbeam coppiced woodland. A large pond in the north-west supports surrounding swampy vegetation including Greater Pond-sedge and willow scrub. A small muddy stream drains the pond to the east, with Remote Sedge common along its banks.	1.46
Potterscrouch Section	LWS	0.53	Fragment of ancient Pedunculate Oak/Hornbeam coppiced woodland with all Pedunculate Oak felled. Wild Cherry standards are also present. A hedge borders much of the site and in the south there is a chalk pit of geological importance.	1.48
Birch Wood (near How Wood)	LWS	3.21	Ancient semi-natural woodland of Pedunculate Oak standards and Hornbeam coppice with Wild Cherry, Silver Birch and Ash. A remnant ditch with an associated old Hornbeam hedge is present and ponds add further habitat diversity.	1.70
Verulamium Park Lake	LWS	3.28	Lake of importance for local bird and bat population. The lake attracts a wide variety of wildfowl with a heronry also present on one of the islands on the lake. Bat species recorded regularly feeding over the lake include Noctule and Daubenton's.	1.78
Abbey Mill Lane area	LWS	Not available	Building and environs important for protected species.	1.91

Site name	Type	Approx. area (ha)	Interest Features	Distance from site (km)
Featherbed Lane Copse by Serge Hill	LWS	0.88	Ancient green lane bordered by old laid hedges. The hedge supports some Wild Cherry standards and Field Maple coppice. A small dell hole is present towards the east end.	1.92

Abbreviations used in Table 3.1: LWS: Local Wildlife Site; ha: hectare; km: kilometre.

Figure 3.1: Statutory designated non-statutory designated sites within 2 km



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Legend

- Site Boundary
- 2km buffer
- Local Wildlife Sites

Rev	Description	By	CB	Date

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Project: East End of Ragged Hall Lane, Chiswell Green, St Albans, AL2 3NP

Title: Designated Statutory Sites

Status	Drawn By	PM/Checked By
ISSUE	JM	NH
Project Number	**Scale @ A3**	**Date Created**
ECO02186	1:15,000	FEB 2022
Figure Number		**Rev**
3.1		-

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3.2 Species

3.2.1 Records of protected species were obtained from the HERC. A number of species of conservation importance or otherwise notable were recorded within the 2 km search radius of the site. A summary of these records is provided below in Table 3.2.

3.2.2 In order to simplify the results, only records of species from the last 10 years are shown. In addition, only data with a 6-figure grid reference resolution or higher are provided since locations given at a lower resolution do not allow accurate calculation of distance to the site boundary.

Table 3:2: Species records from the last 10 years within 2 km of the site

Common name	Scientific name	Nearest distance from site (km)	Year of most recent record	Conservation Status
Flora				
Bluebell	*Hyacinthoides non-scripta*	1.75	2016	WCA8
Field Scabious	*Knautia arvensis*	1.75	2016	NT
Hoary Plantain	*Plantago media*	1.15	2016	NT
Invertebrates				
Stag Beetle	*Lucanus cervus*	0.56	2015	WCA5, NERC S41, UKBAP
Invertebrates - Lepidoptera				
Chalk Hill Blue	*Polyommatus coridon*	0.83	2014	LBAP, NT
Cinnabar	*Tyria jacobaeae*	0.19	2015	NERC S41, UKBAP,
Jersey Tiger	*Euplagia quadripunctaria*	1.94	2012	HSD2
Shaded broad-bar	*Scotopteryx chenopodiata*	1.45	2016	NERC S41, UKBAP,
Shoulder-striped wainscot	*Leucania comma*	0.98	2012	NERC S41, UKBAP
Small Blue	*Cupido minimus*	0.19	2018	NERC S41, UKBAP, NT
Small heath	*Coenonympha pamphilus*	0.83	2016	NERC S41, UKBAP, NT
White Admiral	*Limenitis camilla*	1.96	2015	WCA5, NERC S41, UKBAP, VU
White-letter hairstreak	*Satyrium w-album*	0.75	2018	WCA5, NERC S41, UKBAP, EN
Herpetofauna				
Common Toad	*Bufo bufo*	1.46	2016	WCA5, NERC S41, UKBAP
Birds				
Barn Owl	*Tyto alba*	0.17	2016	WCA1
Barnacle Goose	*Branta leucopsis*	1.75	2016	BDIR1
Brambling	*Fringilla montifringilla*	0.17	2016	WCA1
Bullfinch	*Pyrrhula pyrrhula*	0.17	2018	Amber
Cetti's Warbler	*Cettia cetti*	0.04	2018	WCA1
Common (Mealy) Redpoll	*Acanthis flammea*	1.94	2015	Amber
Common Firecrest	*Regulus ignicapilla*	1.94	2012	WCA1
Common Gull	*Larus canus*	1.11	2018	Amber

Common name	Scientific name	Nearest distance from site (km)	Year of most recent record	Conservation Status
Corn Bunting	*Emberiza calandra*	1.17	2014	Red
Cuckoo	*Cuculus canorus*	0.68	2018	NERC S41, UKBAP, Red
Dunnock	*Prunella modularis*	0.04	2018	Amber
Fieldfare	*Turdus pilaris*	0.04	2018	WCA1, Red
Gadwall	*Mareca strepera*	1.75	2018	Amber
Garganey	*Spatula querquedula*	1.84	2012	WCA1, Amber
Goldeneye	*Bucephala clangula*	1.75	2014	WCA1, Amber
Great Black-backed Gull	*Larus marinus*	1.75	2016	Amber
Grey Wagtail	*Motacilla cinerea*	0.17	2018	Red
Greylag Goose	*Anser anser*	1.46	2018	WCA1, Amber
Hawfinch	*Coccothraustes coccothraustes*	1.59	2018	NERC S41, UKBAP, Red
Hen Harrier	*Circus cyaneus*	1.94	2018	WCA1, NERC S41, Red
Herring gull	*Laurs argentatus*	0.17	2018	Red
Hobby	*Falco subbuteo*	1.84	2018	WCA1,
Hoopoe	*Upupa epops*	1.94	2012	WCA1
House martin	*Delichon urbicum*	0.00	2018	Amber
House sparrow	*Passer domesticus*	0.17	2018	NERC S41, UKBAP, Red
Kestrel	*Falco tinnunculus*	0.04	2018	Amber,
Kingfisher	*Alcedo atthis*	1.46	2018	WCA1, Amber, BDIR1
Lapwing	*Vanellus vanellus*	1.84	2018	NERC S41, UKBAP, Red
Lesser Black-backed Gull	*Larus fuscus*	1.46	2018	Amber
Lesser redpoll	*Acanthis cabaret*	0.29	2018	NERC S41, UKBAP, Red
Lesser Spotted Woodpecker	*Dryobates minor*	1.75	2016	Red
Linnet	*Linaria cannabina*	0.17	2018	Red
Little Egret	*Egretta garzetta*	1.46	2018	BDIR1
Mallard	*Anas platyrhynchos*	1.10	2018	Amber
Meadow pipit	*Anthus pratensis*	1.04	2018	Amber
Mediterranean Gull	*Ichthyaetus melanocephalus*	1.84	2017	WCA1, Amber, BDIR1
Mistle Thrush	*Turdus viscivorus*	0.75	2018	Red
Mute swan	*Cygnus olor*	1.46	2018	Amber
Osprey	*Pandion Haliaetus*	1.94	2018	WCA1, Amber, BDIR1
Oystercatcher	*Haematopus ostralegus*	1.75	2015	Amber
Peregrine	*Falco peregrinus*	1.04	2016	WCA1, BDIR1
Pochard	*Aythya ferina*	1.75	2018	Red
Red Kite	*Milvus milvus*	0.17	2018	WCA1, BDIR1
Redwing	*Turdus iliacus*	0.17	2018	WCA1, Red

Common name	Scientific name	Nearest distance from site (km)	Year of most recent record	Conservation Status
Reed Bunting	*Emberiza schoeniclus*	1.46	2018	NERC S41, UKBAP, Amber
Sandpiper	*Actitis hypoleucos*	1.84	2017	Amber
Short-eared Owl	*Asio flammeus*	1.94	2015	Amber, BDIR1
Shoveler	*Spatula clypeata*		2019	Amber
Skylark	*Alauda arvensis*	0.55	2018	NERC S41, Red
Song thrush	*Turdus philomelos*	0.40	2018	LBAP, Red
Spotted flycatcher	*Muscicapa striata*	1.75	2013	NERC S41, UKBAP, Red
Starling	*Sturnus vulgaris*	0.17	2018	Red
Stock dove	*Columba oenas*	1.18	2018	Amber
Swift	*Apus apus*	0.12	2018	Amber
Tawny owl	*Strix aluco*	1.46	2018	Amber
Teal	*Anas crecca*	1.46	2018	Amber
Whinchat	*Saxicola rubetra*	1.46	2018	Red
Wigeon	*Anas penelope*	1.46	2018	Amber
Willow warbler	*Phylloscopus trochilus*	1.46	2018	Amber
Woodcock	*Scolopax rusticola*	1.84	2018	NERC S41, UKBAP, Red
Yellow Wagtail	*Motacilla flava*	1.18	2018	Red
Yellowhammer	*Emberiza citrinella*	0.19	2018	NERC S41, UKBAP, Red
Mammals (bats)				
Brown Long-eared Bat	*Plecotus auritus*	1.56	2014	EPS, WCA5, NERC S41, UKBAP
Common pipistrelle	*Pipistrellus pipistrellus*	0.54	2018	EPS, WCA5
Nathusius's Pipistrelle	*Pipistrellus nathusii*	1.85	2014	EPS, WCA5, NT
Noctule Bat	*Nyctalus noctula*	1.62	2014	EPS, WCA5, NERC S41, UKBAP
Soprano Pipistrelle	*Pipistrellus pygmaeus*	1.56	2014	EPS, WCA5, NERC S41, UKBAP
Mammals (other)				
Badger	*Meles meles*	0.29	2020	PBA
Hedgehog	*Erinaceus europaeus*	0.09	2019	NERC S41, UKBAP, VU

Abbreviations used in Table 3.2: WCA1: Wildlife & Countryside Act Schedule 1, part 1; WCA5: Wildlife & Countryside Act Schedule 5; WCA8: Wildlife & Countryside Act Schedule 8; NERC S41: Natural Environment & Rural Communities Act Species of Principal Importance; UKBAP: UK Biodiversity Action Plan priority species; PBA: Protection of Badgers Act 1992; R: Red List (pre 1994 IUCN guidelines) Rare; EN: Red List (pre 1994 IUCN guidelines) Endangered; NT: Red List (pre 1994 IUCN guidelines) Near Threatened; VU: Red List (pre 1994 IUCN guidelines) Vulnerable; Birds:Red: Bird Population Status: red; Birds:Amber: Bird Population Status: amber; EPS: European Protected Species; BDIR1: Birds Directive Annex 1.

3.3 Phase 1 Habitat Survey

3.3.1 The survey results are presented in the form of a map with the habitat types and boundary features marked (Figure 3.2). Site photographs can be found in Appendix B.

3.3.2 Descriptions of the habitat types and boundary features are detailed below in order of their extent on site. Habitat descriptions are defined by broad habitat types (JNCC, 2010).

A2.1 Dense/Continuous Scrub

3.3.3 Several areas of dense scrub were recorded onsite during the survey, along the northern, eastern boundaries and the southwestern corner. Species present include, bramble *Rubus fruticosus,* hawthorn *Crataegus monogyna,* ivy *Hedera* helix, common holly *Ilex aquifolium* and stinging nettle *Urtica dioica*.

3.3.4 An area comprising of just dense bramble scrub, approximately 10 m by 1.5 m, is located on the eastern boundary of the site.

A3.1 Broadleaved Scattered Trees

3.3.5 Scattered immature common oak *Quercus robur* were identified along the northern site boundary.

3.3.6 Immature trees were scattered across the site, including within the areas of scrub (refer to Photograph 1). Species present, include common oak and cherry *Prunus avium.*

B4 Improved Grassland

3.3.7 A 3 m improved grassland border with a very short damage sward (refer to Photograph 2) ran adjacent to the western boundary of the site. Few species were identifiable due to the site been recently cleared.

J2.1.2 Intact Species-poor Hedge

3.3.8 A hedge dominated by beech *Fagus sylvatica* approximately 10 m length was located on the eastern boundary.

3.3.9 A length of mature, substantial Leyland cypress *Cypressus x leylandii* hedge measuring approximately 25 m in length, was recorded along the northern end of the eastern boundary.

J2.4 Fence

3.3.10 A 10 m by 2 m wooden fence was located along the eastern boundary continuing from the Leyland cypress hedge to join the wall.

J2.5 Wall

3.3.11 A 6 m wall was located within the eastern boundary belonging to the neighbouring property.

J2.8 Earth Bank

3.3.12 A raised earth bank ran along the southern boundary of the site. This had recently been cleared however, there was some bramble, ivy, cow parsley *Anthriscus sylvestris* and dandelion still evident.

J4 Bare Ground

3.3.13 The site predominantly comprised of bare ground where the site had been recently flayed (refer to Photograph 3). Dead scrub was scattered across the site with some bramble, ivy and stinking iris *Iris foetidissima,* still evident.

Figure 3.2: Phase 1 Plan

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Legend

- Site Boundary
- Scattered tree - broadleaved
- Earth bank
- Fence
- Intact hedge - species-poor
- Wall
- Bare ground
- Improved grassland
- Scrub - scattered

Rev	Description	By	CB	Date

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Title: Phase 1 Plan

Status	Drawn By	PM/Checked By
ISSUE	JM	NH
Project Number	**Scale @ A3**	**Date Created**
ECO02186	1:500	MAY 2022
Figure Number		**Rev**
3.2		**-**

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3.4 Ecological Scoping Survey

Bats

3.4.1 Five bat species were identified within 2 km of the site in the desk study, these were brown long-eared, common pipistrelle, Nathusius' pipistrelle, noctule and soprano pipistrelle. The closest record was for common pipistrelle, 0.54 km from the site.

3.4.2 The scattered trees and scrub on site provide limited foraging and commuting potential for various bat species.

3.4.3 No suitable bat roosting habitat was identified on site.

Amphibians and reptiles

3.4.4 Common toads were recorded within 2 km of the site. The closest record was 1.46 km from the site with no records for reptile species.

3.4.5 No suitable waterbodies for supporting great crested newts (GCN) were identified on site, or within a 500 m boundary within the desk study.

3.4.6 The ruderal and scrub on site provided some suitable habitat for reptiles, even though it had recently been cleared.

3.4.7 The ideal reptile habitat has a variable structure with a mixture of vegetation heights, tangled or thorny areas, mosaics, bare patches, lots of edges ('ecotones') and good basking places. The site is also connected to further suitable habitat to the northern and western site boundaries, where reptiles may be present and could colonise the recently cleared site.

Birds

3.4.8 Several locally common bird species were recorded within 2 km of the site. Six Annex 1 species were recorded, these were kingfisher, little egret, Mediterranean gull, osprey, peregrine and short-eared owl with red kite being the closest record at 0.17 km.

3.4.9 The remaining scrub and scattered trees offer suitable habitat to support common species of nesting birds.

Dormice

3.4.10 No records of dormice were recorded within 2 km of the site.

3.4.11 No suitable habitat for dormice was identified on site.

Badgers

3.4.12 Badgers were recorded within 2 km of the site, with the closest record being 0.29 km.

3.4.13 No evidence of badger activity (setts/latrines) was identified during the survey. However, the habitat could provide suitable foraging habitat for badgers.

4 EVALUATION AND POTENTIAL IMPACTS

4.1 Designated sites

4.1.1 There were no statutory designated sites within the search area. There were ten non-statutory sites located within the 2 km search radius of the site, the closest being Park Wood LWS which lies 0.14 km to the west of the site.

4.1.2 As Park Wood LWS lies in close proximity to the site, pollution control measures will be required to ensure that there will be no adverse effects from the development.

4.2 Species

Bats

Foraging / commuting

4.2.1 The site is considered to be of low value to foraging bats due to the habitats present on site (bare ground, scrub and scattered trees). The agricultural and woodland nature of much of the surrounding landscape enhances the wider value to foraging bats.

4.2.2 Mitigation and enhancement measures are recommended in Section 5 of this report to ensure there is no reduction in the area or quality of habitat post-development for foraging and commuting bats.

Roosting

4.2.3 No potential bat roosting sites were identified; therefore, no further surveys are required.

Amphibians and Reptiles

4.2.4 Some suitable habitat for reptiles was identified on site. These habitats connected to more suitable habitat in the wider landscape.

4.2.5 It is recommended that a reptile survey is undertaken on site. The reptile survey would follow the recommended methodology outlined in the Herpetofauna Workers' Manual (JNCC, 2003) and Froglife's Advice Sheet 10 (1999).

4.2.6 A total of 8 site visits would be required. During the first visit artificial refugia would be placed around the site in areas of suitable habitat and left to 'bed in' for 7-14 days. Seven subsequent visits would be made to look for reptiles on or under the refugia. The refugia would be collected on the final visit. Surveys can be undertaken between April and June and in September to early October (weather dependent).

4.2.7 The results of the reptile survey will determine what mitigation measures may be required during construction and operation of the site.

Breeding Birds

4.2.8 The scattered trees and scrub on site provide good cover and suitable nesting opportunities for a range of common bird species.

Dormice

4.2.1 Dormice were not recorded within 2 km of the site. No suitable dormouse habitat was identified on site, therefore no surveys will be required.

Badgers

4.2.2 No evidence of badger was identified during the phase one survey however, the habitat is connected to the wider rural landscape, it is possible that badgers may use the site periodically or start to use it in the future.

5 MITIGATION AND ENHANCEMENT

5.1 Designated sites

5.1.1 There are no statutory designated sites within the 2 km study area. Ten non-statutory designated sites are located within 2 km, the closest being Park Wood LWS. These designated sites are sufficiently far from the site that the proposals would be unlikely to have any effect upon them, however measures should be taken to prevent any pollution events from occurring and to ensure any contaminated soil or water and airborne particles are contained within the project boundary and disposed of appropriately. This would prevent the risk of them reaching the nearby designated sites.

5.1.2 These good practice guidelines will be included within a Construction Environmental Management Plan (CEMP).

5.2 Species

Reptiles and amphibians

5.2.1 Any mitigation and enhancement for reptiles and amphibians could be managed through the provision of new hibernaculum within any areas of soft landscaping. These should be approximately 1 m by 2 m by 1 m high and should be built from wood won from trees felled to facilitate the development. Alternatively, several smaller log piles could be created.

5.2.2 Upon completion of the recommended further surveys for reptiles, additional mitigation and enhancements measures will be provided.

Birds

5.2.3 In order to protect any birds' nests and comply with the law, any vegetation clearance should take place outside the breeding bird season (mid-February-September).

5.2.4 Where this is not possible, the habitat should first be checked by a suitably qualified ecologist, if nests are found; then the removal of the habitat will have to be delayed until after the chicks have fledged (about 6 weeks).

5.2.5 It is recommended that tree and scrub planting is provided on site exceeding the area of any suitable habitat lost. This would provide feeding and nesting opportunities for breeding birds; provide foraging habitat for common garden bird species and provide a source of food in the autumn to early winter months.

5.2.6 Bird boxes could be installed on any new structures, buildings or retained habitat to provide further nesting areas and further enhance the site for birds.

Bats

5.2.7 Creation of grassland suitable for a diverse invertebrate assemblage would be of particular value to foraging bats. The installation of additional bat roosting habitat in the form of artificial bat boxes could be considered in order to enhance the site for bats

5.2.8 It is recommended that any lighting on the site will include measures to control the amount of artificial lighting and consider the specifications set out in the Bat Conservation Trust guidelines (BCT, 2018) as artificial lighting can affect the feeding behaviour of bats.

5.2.9 The following points should be considered in the design of the lighting scheme for the site:

- Light source; a lamp with a low UV output should be chosen and output and lux levels should be as low as possible;
- Luminaire and light spill accessories; lighting should be directed away from the hedgerows and trees and should be directed to where it is needed. Light spill should be avoided by the design of the luminaire and by using hoods, cowls, louvers and shields to direct light to the intended area only;
- Lighting column; Lighting columns should be as short as possible unless a taller column will allow light to be directed downwards at a more acute angle to reduce horizontal spill;
- Light levels; the level of light should be as low as possible for the intended use; and
- Timing; where practicable, lighting should be turned off for periods when it is not needed to provide some dark periods.

5.2.10 Further enhancements for bats, where possible, could include a range of night scented flowering plants that would attract night-time insects, which in turn the bats would feed on.

5.3 Construction Environmental Mitigation Plan

5.3.1 To ensure that the designated sites, habitats and protected and notable species are not detrimentally affected during the construction phase of development a CEMP would be produced prior to construction works commencing.

5.3.2 The following measures would be included:

- Protective fencing installed along the boundaries of the fields during construction to protect the hedgerows, trees and grass margins where they fall outside the construction areas. Best practice guidelines for constructing exclusion zones, barriers and ground protection around trees provided in British Standard BS 5837: 2012 (Trees in Relation to design, demolition and construction - Recommendations) should be followed where necessary and adapted for hedgerows;
- The sensitive siting of construction compounds, access roads and laydown areas;
- A plan produced to ensure that air or water-borne pollution generated during construction of the solar farm does not impact on the surrounding area;
- During construction excavations of more than 0.5 m deep should be fenced or covered overnight where practicable to prevent mammals falling in and getting trapped. Otherwise a means of escape, such as wooden planks that could be used as ladders, should be set in place within these excavations, or excavations should be profiled so as to enable mammals to escape;
- No night lighting should be used on site to avoid disturbance to bats that may use the site; and
- Works within 5 m of hedgerows or suitable ground nesting bird habitat should be conducted outside of the nesting bird season, if this is unavoidable a check of the relevant sections of hedgerow and ground should be undertaken no more than 48 hours in advance of works being undertaken.

5.4 Enhancement Opportunities

5.4.1 An assessment of Biodiversity Net Gain (BNG) of the proposed development is recommended in line with the National Planning Policy.

5.4.2 Adjacent land (other land within the Applicant's ownership), totalling 0.211 ha is to be designated for ecological enhancements for the benefit for local wildlife. The existing PRoW (Footpath St Michael Rural 010) will be retained as part of the enhancements. This provision will provide both communal and ecological enhancements. Associated provisions can be secured by condition (or other appropriate measures).

5.4.3 Wildflower could be included within the landscaping proposal for the site, which would provide foraging habitat for a range of species, including invertebrate, birds, and bats, and enhance the biodiversity of the site.

5.4.4 Further possible enhancements for the site include provision of bird and bat boxes on retained mature trees.

REFERENCES

Bat Conservation Trust (2011). Statement on the impact and design of artificial light on bats. Bat Conservation Trust, London.

Bat Conservation Trust (2018). Artificial lighting and wildlife Interim Guidance: Recommendations to help minimise the impact of artificial lighting on bats. Bat Conservation Trust, London.

CIEEM (2016). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2017). Guidelines for Preliminary Ecological Assessment. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins J. (ed.) (2016). Bat surveys for Professional Ecologists: Good practice guidelines (3rd Edition). Bat Conservation Trust, London.

Eaton M. A., Aebischer, N., Brown A., Hearn R., Lock L., Musgrove A., Noble D., Stroud D. & Gregory R. D. (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.

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

JNCC (2010). Handbook for Phase 1 Habitat survey: a technique for environmental audit (revised reprint). Joint Nature Conservation Committee, Peterborough.

JNCC (2003). Herpetofauna Workers' Manual. JNCC, Peterborough

Legislation.gov.uk. *Wildlife and Countryside Act 1981*. [online] Available at: <http://www.legislation.gov.uk/ukpga/1981/69/contents>.

Legislation.gov.uk. *The Protection of Badgers Act 1992*. [online] Available at: https://www.legislation.gov.uk/ukpga/1992/51.

Legislation.gov.uk. *The Countryside and Rights of Way Act 2000*. [online] https://www.legislation.gov.uk/ukpga/2000/37/contents.

Legislation.gov.uk. *The Conservation of Habitats and Species Regulations 2019 (EU Exit Amendment)* [online] Available at: https://www.legislation.gov.uk/ukdsi/2019/9780111179512/contents.

APPENDICES

Appendix A

Relevant Legislation

A.1 GREAT CRESTED NEWTS

Great created newts *Triturus cristatus* are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (and as amended), which affords the species protection under Section 9. The species is also listed on Schedule 2 of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. In combination, this makes it an offence to:

- intentionally kill, injure or take (capture etc.) a great crested newt;
- possess a great crested newt;
- intentionally or recklessly damage, destroy, obstruct access to any structure or place used by great crested newt for shelter or protection, or disturb any animal occupying such a structure or place; and sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

Great crested newts are also listed on the UKBAP as a Priority Species and are listed as a species of principal importance for biodiversity in England & Wales under Section 41 of the Natural Environment & Rural Communities Act (2006).

A.2 REPTILES

All common UK reptile species (adder *Vipera berus*, grass snake *Natrix Helvetica*, common lizard *Zootoca vivipara* and slow worm *Anguis fragilis*) are protected through part of Section 9(1 and 5) of the Wildlife & Countryside Act 1981 (as amended). This prohibits:

- Intentional or reckless injuring or killing;
- Selling, offering or exposing for sale, or having in possession or transporting for the purpose of sale, any live or dead wild animal or any part of, or anything derived from, such an animal; or
- Publishing or causing to be published any advertisement likely to be understood as conveying buying or selling, or intending to buy or sell, any of those things.

A.3 BIRDS

All birds, their nests and eggs are afforded protection under the Wildlife and Countryside Act 1981, as updated by the Countryside and Rights of Way Act 2000. It is an offence to:

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; and
- intentionally take or destroy the egg of any wild bird.

Schedule 1 birds cannot be intentionally or recklessly disturbed when nesting and there are increased penalties for doing so. Licences can be issued to visit the nests of such birds for conservation, scientific or photographic purposes but not to allow disturbance during a development even in circumstances where that development is fully authorised by consents such as a valid planning permission.

A.4 BATS

All British bat species are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981, as updated by the Countryside and Rights of Way Act 2000. All British bats are also included on Schedule 2 of

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 as European Protected Species. It is an offence to:

- intentionally or recklessly kill, injure or capture bats;
- deliberately or recklessly disturb bats (whether in a roost or not); and
- damage, destroy or obstruct access to bat roosts.

A roost is defined as 'any structure or place which [a bat] uses for shelter or protection'. As bats tend to reuse the same roosts, legal opinion is that a roost is protected whether or not bats are present at the time of survey.

A licence will therefore be required by those who carry out any operation that would otherwise result in offences being committed.

The following bat species are listed as being of principal importance for the conservation of biodiversity in England, (commonly referred to as UKBAP Priority species): barbastelle *Barbastella barbastellus*, Bechstein's *Myotis bechsteinii*, noctule *Nyctalus noctula*, soprano *pipistrelle Pipistrellus pygmaeus*, brown long-eared *Plecotus auritus*, greater horseshoe *Rhinolophus ferrumequinum* and lesser horseshoe *Rhinolophus hipposideros*.

A.5 BADGER

Badgers *Meles meles* are protected under the Protection of Badgers Act 1992. This act is based on the need to protect badgers from baiting and deliberate harm or injury. The act makes it an offence to:

- Wilfully kill, injure, take, possess or cruelly ill-treat a badger, or attempt to do so; and
- Intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access routes.

A sett is defined as "any structure or place that displays signs indicating current use by a badger".

Appendix B
Site Photographs

Photograph 1: Area of scrub with scattered trees

Photograph 2: Eastern boundary

Photograph 3: Bare ground of flayed site