

PRELIMINARY ECOLOGICAL APPRAISAL

FOR Seer Green Parish Council

SEER GREEN VILLAGE, BUCKINGHAMSHIRE

NOVEMBER 2023

VERSION 1



**Wildlife Trust
Consultancies**

Client**Project**

Seer Green Parish Council
Gerston
Back Lane
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EXECUTIVE SUMMARY

Future Nature WTC was commissioned by Seer Green Parish Council in January 2023, to undertake a baseline ecological survey of several parcels of land within Seer Green village, in order to make recommendations on potential biodiversity enhancements which could be implemented.

The areas surveyed at Seer Green can broadly be divided between grassland and woodland habitats. The woodland habitat (Green Wood) is already of elevated ecological value, and is of importance at least at the district level (it is currently classified as Ancient Woodland and the Priority Habitat Deciduous Woodland). The grassland habitat comprises two recreation / playground amenity areas, a cemetery and a number of road verges. These grassland habitats are generally of limited ecological value due to the relatively intensive management taking place to maintain these areas.

Other habitats present within the areas surveyed include an additional small parcel of woodland, a treeline, mixed scrub and allotments within the northern recreation ground, a hedgerow and scrub within Green Meadow playground plus scattered trees across all the areas surveyed.

The site is likely to support a reasonably diverse breeding bird and invertebrate assemblage within Green Wood, whilst the trees/treelines, scrub and hedgerows will also be of benefit to these species groups. Bats are also likely to use such habitats for roosting (mature trees), foraging and commuting.

The village presents a number of opportunities to make significant contributions to biodiversity, such as through maintaining / enhancing the value of existing important habitats, introducing new valuable habitats where practicable to do so (such as ponds and orchards), introducing new faunal enhancements such as bird/bat boxes and refugia/habitat piles, in addition to sensitively managing habitats to enhance their value to wildlife. Such enhancements will not only benefit biodiversity at the village itself, but will also provide greater habitat connectivity to ecologically valuable habitat in the local area.

By making such changes, Seer Green has the potential to be an exemplar project for tackling the current biodiversity crisis in the UK and beyond, which other Parish Councils may draw inspiration from.

1. INTRODUCTION

1.1 BACKGROUND

Future Nature WTC, as part of the Wildlife Trust Consultancies (WTC), was commissioned by Seer Green Parish Council in January 2023, to undertake a baseline ecology survey of several parcels of land at Seer Green village. An assessment of the existing biodiversity value of the village was undertaken and recommendations have been made on how the biodiversity value of the habitats present could be increased.

The existing biodiversity value of the parcels was assessed as part of a Preliminary Ecological Appraisal. This also included an assessment of the potential for each habitat to support protected and notable species.

This report presents the methods used to undertake the habitat assessment and the results of the field study. This is followed by a discussion of options available to increase biodiversity in the village.

1.2 SITE LOCATION & DESCRIPTION

The survey areas within the village comprise three main parcels, including Green Wood, Green Meadow and the Recreation Ground, depicted in Figure 2 below and centred at Grid References SU 96673 91677, SU 96526 91598 and SU 97053 92163 respectively. A number of representative road verges were also surveyed throughout the village. The parcels primarily comprise amenity grassland and woodland habitat, surrounded by existing residential development and local facilities / businesses. An additional large parcel of woodland 'Long Grove Wood' is present within the village, comprising a Berkshire, Buckinghamshire & Oxfordshire Wildlife Trust Reserve, designated as Ancient Woodland and Priority Habitat.

The wider village surrounds include a mixture of agricultural land, woodland, golf courses, other villages and Falcon Hill Manor House.

Figure 1: Seer Green Site Location

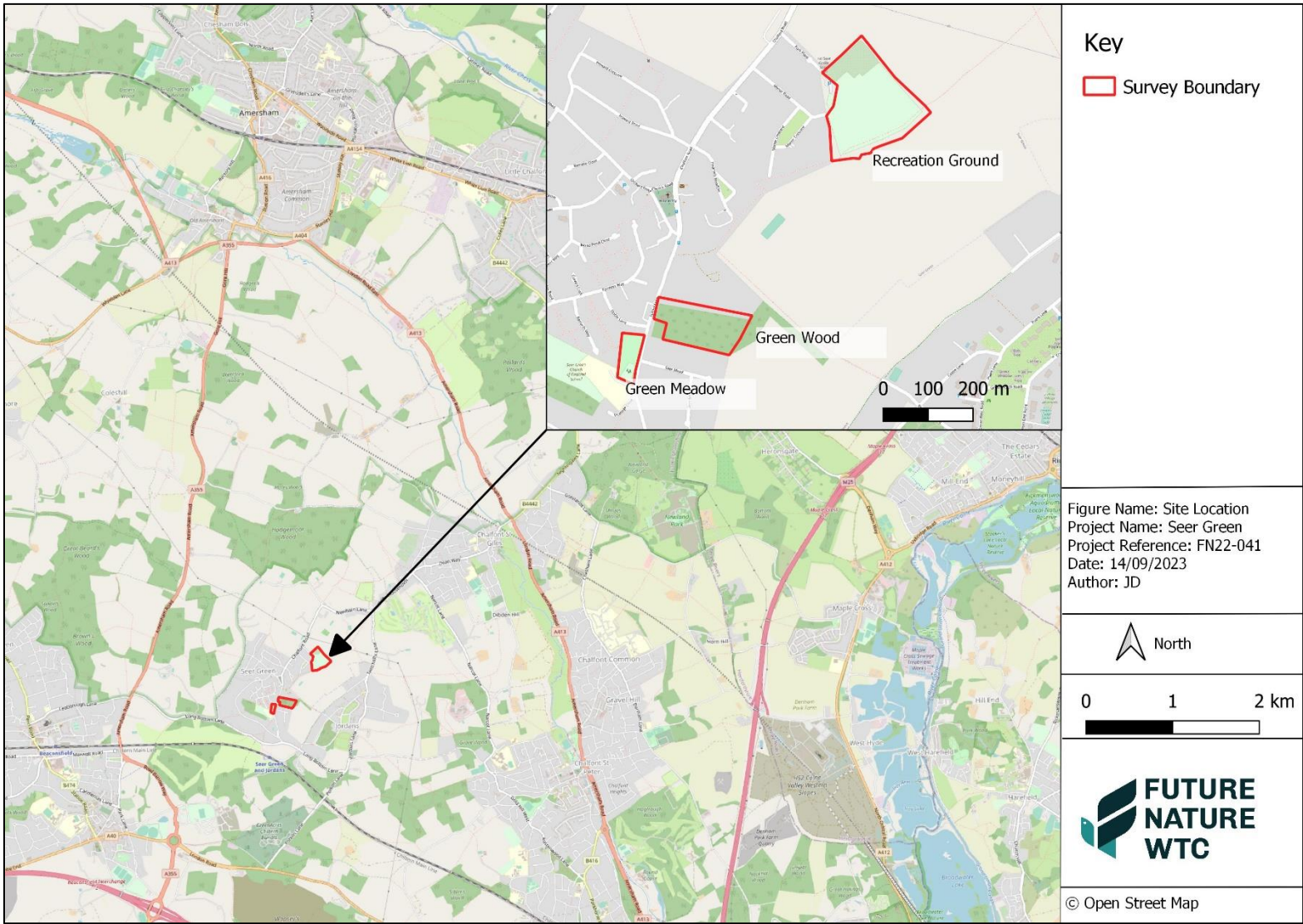


Figure 2: Seer Green Survey Area Boundaries



1.3 REPORT OBJECTIVES

The objectives of this report are to:

- Identify the types of habitat present on the site;
- Identify the value of the habitats and their potential to support protected and notable species;
- Outline biodiversity strengths and weaknesses; and
- Identify broad areas for potential improvement and enhancement.

2. METHODOLOGY

The methodologies used during the surveys are described in this section of the report.

2.1 DESK STUDY

A desk study was undertaken to assess the nature of the surrounding habitats and included:

- An assessment of aerial imagery and Ordnance Survey mapping of the site and surrounding area;
- A data search undertaken by Buckinghamshire and Milton Keynes Environmental Records Centre (BMERC). The desk study included a search of records of protected species, and those of conservation concern, within the parish boundary, and statutory and non-statutory designated sites within the parish boundary.
- A search of the Multi Agency Geographic Information for the Countryside (MAGIC) website¹ for statutory designated sites such as Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Sites of Special Scientific Interest (SSSI) and priority habitats (comprising those listed under Section 41 of the Natural Environment and Rural Communities Act (NERC) 2006) within 2km of the site.

2.2 FIELD SURVEY

UK Habitat Classification

The survey parcels were subject to a preliminary walk over, during which habitat types were identified and their boundaries mapped. Habitat types were defined as per the UK Habitat Classification survey methodology². This separates habitat types into three groups; those measured by area (referred to as habitats); hedgerows and tree lines; and, rivers.

¹ Multi Agency Geographic Information for the Countryside (www.magic.gov.uk)

² Butcher, B., P., C., R., E., Norton, L., & Treweek, J. (2020). The UK Habitat Classification User Manual Version 1.1. <http://www.ukhab.org>.

All habitats were assigned a good, moderate, or poor condition in line with the methods set out in The Biodiversity Metric 4.0³.

The survey also included an assessment of the habitats present to determine their suitability for protected species or priority species and any signs of these species, such as runs, droppings and/or foraging remains were recorded.

The surveys were carried out on the 19th of April and the 16th of July 2023 by Adam Price (Consultant Ecologist) and Jessica Dikken (Assistant Ecologist) in suitable weather conditions. Both are experienced in undertaking preliminary habitat surveys.

³ The Biodiversity Metric 4.0. User Guide – Technical Annex 2, Natural England Joint Publication JP039. March 2023.

3. RESULTS

3.1 DESK STUDY

3.1.1 Designated Sites

One statutory designated site was recorded within 2km of Seer Green: Hodgemoor Wood Site of Special Scientific Interest (SSSI). This SSSI is designated on the basis of it comprising one of the largest areas of semi-natural broadleaved woodland remaining in the Buckinghamshire Chilterns, and the corresponding diverse flora and fauna it supports.

3.1.2 Non-statutory Designated Sites

There is one non-statutory designated site within 2km of Seer Green, the aforementioned Wildlife Trust reserve Long Grove Wood located within the parish boundary.

Table 1 Statutory and non-statutory designated sites within 2km

Site Name	Brief Description	Distance from Survey Area (m)
Statutory designated sites		
Hodgemoor Wood Site of Special Scientific Interest	Lowland broadleaved, mixed and yew woodland with ground flora dominated by bluebells and wood anemone. The understory intact throughout apart from areas maintained as high forest.	800
Non-statutory designated sites		
Long Grove Wood (Wildlife Trust Reserve)	Old mixed deciduous woodland, with natural glades. The wood is dominated by beech and hornbeam with holly and birch being found in more open areas where trees have had to be pruned or felled.	0

Priority Habitats

A search of the MAGIC website identified the following priority habitats within the 2 km search area:

- **Deciduous Woodland:** There are numerous parcels of deciduous woodland within 2km of Seer Green, in particular to the south, west, and north, a proportion of which is further designated as Ancient and Semi-natural Woodland or Ancient Replanted Woodland. This habitat has good connectivity to the village through tree cover at the

south and south west corner, plus Green Wood to the east and treelines / hedgerows to the north.

- **Traditional Orchard:** A number of orchards are also present, including adjacent to Green Wood, and occasionally scattered across the landscape, predominantly to the north, east and south east. This habitat is known to be of local provenance to the village.

3.1.3 European Protected Species Licencing

The MAGIC website identified three granted European Protected Species (EPS) licenses within the village, all of which were for work affecting bat roosts. This demonstrates that there are a number of buildings within the village that support bat roosts. The species recorded included; common pipistrelle and brown long-eared bat. Several additional bat licenses were granted beyond the railway line to the south, including the aforementioned species plus soprano pipistrelle. Furthermore, several Great Crested Newt licenses and class licence return records are present in the area to the south of the village, though again separated by the railway line.

3.1.4 General Land Use

A review of aerial imagery and Ordnance Survey mapping indicates land use surrounding the village includes a mixture of agricultural land, woodland, golf courses, other villages / Beaconsfield town and Falcon Hill Manor House. The woodland habitats are frequent and well connected to the village.

3.1.5 Protected and Notable Species

A total of 151 protected and notable species, plus seven invasive species, were found within the parish boundary, including 36 birds, 5 bats, 34 plants / fungi, 67 invertebrates, three non-flying mammals, two amphibians and three reptiles. The most recent records include a number of birds, plants and moths, recorded in 2022 while the oldest records date back to 1926. Many of these records were from Hodgemoor SSSIs to the north, although a wide variety of moths and plants were recorded from the village itself.

A further assessment of the potential for these species to be present on site is discussed in Section 3.3. A summary of the records of protected or otherwise notable species provided by BMERC is available in Appendix C.

3.1.6 Invasive Species

A number invasive species were returned in the data search, including ring-necked parakeet and variegated yellow archangel which were recorded within the survey area. Other species records include rhododendron, cotoneaster, montbretia and edible dormouse.

3.2 FIELD SURVEY

UKHab Survey

The habitats present within the survey parcels at Seer Green can be broadly divided into woodland and grassland, with the grassland areas supporting a number of other habitats such as treelines/scattered trees, scrub and hedgerows.

The woodland habitat 'Green Wood' comprises an ecologically valuable area of semi-natural Ancient Woodland.

The grassland is primarily in amenity use for recreation, and as such is generally mown to a short sward height. Other habitats present in these areas, primarily comprising boundary features, provide connectivity for wildlife through the village and beyond.

Table 1 provides a description of the habitats that were recorded during the survey using UKHab categories.

Habitat Feature, Secondary Codes and Condition	Description
Green Wood	Green Wood comprises a relatively small but valuable parcel of semi-natural Ancient woodland. The canopy is relatively closed

<p>w1f Lowland mixed deciduous woodland</p> <p>28 Ancient woodland site</p> <p>30 Semi-natural woodland</p> <p>Moderate Condition</p>	<p>aside from occasional gaps and more open sections at the periphery, i.e. in the north west corner and along the central footpath and is typically formed by semi-mature to mature Oak <i>Quercus spp.</i>, ash <i>Fraxinus excelsior</i>, silver birch <i>Betula pendula</i>, scots pine <i>Pinus sylvestris</i>, beech <i>Fagus sylvatica</i>, wild cherry <i>Prunus avium</i> and sycamore <i>Acer pseudoplatanus</i>.</p> <p>The understory is relatively continuous aside from occasional gaps and is dominated by Holly <i>Ilex aquifolium</i>, with hazel <i>Corylus avellana</i>, rose <i>Rosa spp.</i> and honeysuckle <i>Lonicera perclymenum</i> also present, in addition to small amounts of elder <i>Sambucus nigra</i> and yew <i>Taxus baccata</i>.</p> <p>The ground flora is somewhat variable, ranging from relatively bare patches of leaf litter to more diverse patches of various species such as along footpaths, including ancient woodland indicators (awi). Species represented typically include bluebell (a mix of native <i>Hyacinthoides non-scripta</i> (awi) and detrimental Spanish/hybrid bluebell <i>H. x massartiana</i>), herb Robert <i>Geranium robertanum</i>, lords & ladies <i>Arum maculatum</i>, wood mellick <i>Melica uniflora</i> (awi), wood millet <i>Millum effusum</i> (awi), garlic mustard <i>Alliaria petiolata</i>, wood avens <i>Geum urbanum</i>, creeping buttercup <i>Ranunculus repens</i>, lesser celandine <i>Ficaria verna</i>, ivy <i>Hedera helix</i>, bramble <i>Rubus fruticosus</i> and hawthorn <i>Crataegus monogyna</i> seedlings, enchanter's nightshade <i>Circaea luteriana</i>, broad-leaved dock <i>Rumex obtusifolius</i>, wood sorrel <i>Oxalis acetosella</i> (awi), hedge woundwort <i>Stachys sylvatica</i>, dog's mercury <i>Mercurialis perennis</i> (awi), green alkanet <i>Pentaglottis sempervirens</i> (detrimental), ground elder <i>Aegopodium podagraria</i> (detrimental), ivy-leaved speedwell <i>Veronica hederifolia</i>, ferns, foxglove <i>Digitalis purpurea</i>, red campion <i>Silene dioica</i>, honesty</p>
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	<p><i>Lunaria annua</i>, spring crocus <i>Crocus vernus.</i>, variegated archangel <i>Lamiastrum galeobdolon subsp. argentatum</i> (invasive) and pignut <i>Conopodium majus</i>.</p> <p>Deadwood is relatively frequent within the woodland, whilst well trodden pathways are present throughout.</p>
<p>W1 – woodland at corner of Recreation Ground</p> <p><i>w1f Lowland mixed deciduous woodland</i></p> <p>30 Semi-natural woodland</p> <p>Moderate Condition</p>	<p>W1 comprises a small parcel of woodland within the corner of the recreation ground and is effectively a widened section of the connected treeline TL1 (see below). The canopy is relatively open and formed by wild cherry, field maple <i>Acer campestre</i>, horse chestnut <i>Aesculus hippocastanum</i> and mature hawthorn.</p> <p>The understorey is relatively continuous aside from some gaps and comprises hawthorn, elm <i>Ulmus sp.</i>, field maple, cherry laurel, holly and elder.</p> <p>The ground flora is patchy with areas of bare ground also present. Species include ivy, lesser celandine, cow parsley <i>Anthriscus sylvestris</i>, tree seedlings, lords & ladies, garlic mustard, cleavers <i>Galium aparine</i> and wood avens.</p> <p>Occasional tree stumps / deadwood is present, plus evidence of mammal pathways and digging.</p>
<p><i>34 Ecologically valuable line of trees, including;</i></p> <p>Recreation Ground</p> <p>Treeline TL1</p> <p>Poor Condition</p>	<p>Treeline TL1 is located at the field boundary and has an almost continuous tree canopy and shrub understorey. Predominantly comprised of native species aside from a number of conifers in the canopy and patches of cherry laurel in the understorey. Canopy</p>

	<p>species include oak, wild cherry, silver birch, ash and non-native <i>leylandii</i>. The understorey includes elder, bramble, hazel, hawthorn, ivy and honeysuckle, plus non-native cherry laurel (invasive) and laburnum <i>Laburnum anagyroides</i>. The ground flora is relatively sparse, aside from a small 'scalloped' area, and includes green alkanet (detrimental), red dead-nettle <i>Lamium purpureum</i>, lesser celandine, chickweed <i>Stellaria media</i>, cleavers, herb Robert, common nettle, ivy, lords & ladies, bluebell (mainly hybrid), white dead nettle <i>Lamium album</i> and honesty. Occasional arisings from mowing have been left along the treeline.</p>
<p>Recreation Ground Treeline TL2 Poor Condition</p>	<p>Similar to TL1 described above, but mature oak is more dominant in the canopy, whereas the understorey is more dominated by holly, hawthorn and some elder. The ground flora is also more sparse in nature, with bare ground and leaf litter being frequent. Shading of the adjacent grassland (G1) has allowed several additional species to grow in the sward, such as red dead nettle and lesser celandine.</p>
<p>Recreation Ground Treeline TL3 Moderate Condition</p>	<p>Similar to the previously described treelines, albeit with rose <i>Rosa sp.</i> additionally recorded in the understorey and oak and wild cherry frequent in the canopy. The understorey often encroaches into the adjacent grassland. The ground flora also included hybrid bluebell, dove's foot cranesbill <i>Geranium mole</i> and wood avens.</p>
<p>32 Scattered trees, including; Recreation Ground G1</p>	<p>A small line of trees / scrub is located along the edge of field F1, adjacent to the allotment, including hazel, willow <i>Salix sp.</i>, oak, beech, hawthorn and ornamental species. Some sparse patches of</p>

Cemetery G2	ground flora are present along the edge, including cow parsley, common dandelion, common daisy, hybrid bluebell, white dead nettle, red dead nettle, lords & ladies and ground elder.
Green Meadow G3, S3	Two mature oaks are present within the cemetery.
Road Verges, various	A number of trees are located amongst the scrub and grassland within this area, including semi-mature beech, young to semi-mature rowan and wild cherry and semi-mature sycamore (adjacent to site).
	Individual trees are occasionally planted at various road verges. These typically include species such as silver birch, mature sycamore, mature ash, horse chestnut, cherry and rowan <i>Sorbus aucuparia</i> .
<i>g4 Modified Grassland, including;</i>	
Recreation Ground - Field G1	
Poor Condition	Field G1 comprises a large area of grassland in use as a sports pitch / recreation ground. The sward is accordingly regularly mown to a uniform short sward. Occasional areas of bare ground are present where footfall is highest. The sward is grass dominant and generally includes less than 6 species per metre squared (which automatically scores as poor condition under a Biodiversity Net Gain assessment). Species present include red fescue <i>Festuca rubra</i> , Yorkshire fog <i>Holcus lanatus</i> , meadow grass <i>Poa sp.</i> , cocksfoot <i>Dactylis glomerata</i> , plus occasional to frequent herbs including common dandelion <i>taraxacum</i> , common daisy <i>Bellis perennis</i> , yarrow <i>Achillea millefolium</i> , field wood-rush <i>Luzula</i>

	<p><i>campestris</i>, creeping buttercup, greater plantain <i>Plantago major</i>, ribwort plantain <i>Plantago lanceolata</i> and white clover <i>Trifolium repens</i>.</p>
<p>Cemetery Grassland G2 Poor Condition</p>	<p>A small cemetery is located adjacent to Green Wood. The grassland is well-managed to maintain a short sward and formal look. Although grass dominant, there is a strong moss component present. Species present include fescue <i>Festuca sp.</i>, field wood-rush, yarrow, mouse ear hawkweed <i>Pilosella officinarum</i>, wild strawberry <i>Fragaria vesca</i>, speedwell, greater plantain, ribwort plantain, clovers <i>Trifolium spp.</i>, common daisy, creeping buttercup and pignut. The diversity within the sward is generally relatively high for this habitat, albeit the lack of structural variety reduces the condition under a BNG assessment. Ornamental species are interspersed with the grassland associated with headstones. A striking display of spring crocus was also reported by Carole Hughes in this area.</p>
<p>Green Meadow G3 Good Condition</p>	<p>Green meadow comprises an area of grassland around a playground. The grassland is well-managed, generally having been mown to a short sward. Herbs are frequent to abundant within the sward. Species present include meadow grass, fescue, cocksfoot, Yorkshire fog, perennial ryegrass <i>Lolium perenne</i>, common dandelion, yarrow, ribwort plantain, mouse ear chickweed <i>Cerastium vulgatum</i>, clovers, dove's foot cranesbill, cat's ear <i>Hypochaeris radicata</i>, greater plantain and meadow buttercup <i>Ranunculus acris</i>.</p>

<p>Road Verges</p> <p>Range from Good condition (i.e. V1), to poor condition (i.e. V5) depending on species diversity</p>	<p>Road verges are located throughout the village. These are broadly similar in nature in terms of their ecological value. A selection of road verges are described below.</p>
<p>V1 Stable Lane</p>	<p>A typical road verge near Green Meadow comprises short sward grassland, with occasional patches of bare ground and amenity ornamental shrub planting. Species present include black medick <i>Medicago lupulina</i>, white clover, cut-leaved cranesbill <i>Geranium dissectum</i>, yarrow, common daisy, common dandelion, self-heal <i>Prunella vulgaris</i> and herb Robert.</p>
<p>V2 near Seer Mead</p>	<p>As per verge V1, but bird's foot trefoil was additionally noted.</p>
<p>V3 School Lane</p>	<p>Similar to V1 and V2, but with knapweed <i>Centaurea nigra</i> present (recently mown).</p>
<p>V4 at main south east</p>	<p>This verge is an attractive example of an annual wildflower grassland, with a rich and colourful display having grown out</p>

village entrance	from a presumed seed mix. Some common nettle is present to the rear of the wildflower strip, with a more typical mown grassland verge present to the front and surrounds (with burnet saxifrage <i>Pimpinella saxifraga</i> and field bindweed <i>Convolvulus arvensis</i> also noted).
V5, V9 Long Grove area	Very short-sward, manicured entrances to properties. A relatively large semi-circular grass area is also located here, which is more herb-rich than some other verges, with bird's foot trefoil and mouse-ear hawkweed present, plus a number of semi-mature horse chestnut and silver birch trees present.
V6 Farmers Way	Well-managed grass verges similar to V1 and V2, with occasionally sycamores present
V7 Hearn's Meadow	Similar to V6, with cherry trees planted at the corner verges.
V8 corner at join of Chalfont Road, Orchard Road / Manor Farm Way	Well-managed verge similar to V6 etc., with a dead cherry tree and semi-mature ash present.
V10 near Howard Crescent	Broadly similar to previously described verges, albeit appears to be less frequently mown.

V11 Gurnells Road	Few verges are located here, aside from a small circular green at the end of the road, where a long sward has developed, surrounding a mature tree.
<p><i>h2a Native hedgerow, including:</i></p> <p>H1 - Short Hedge within G1</p> <p>H2 – Hedge along/adjacent to Green Meadow's eastern boundary</p>	<p>A well managed hawthorn dominant hedge is located adjacent to the allotment area, perpendicular to the above hedge, with occasional hazel also present, and several disconnected trees along the allotment side.</p> <p>A well-managed (box cut), predominantly beech hedge forms the eastern boundary of Green Meadow, with some hazel, sycamore, blackthorn, oak, hawthorn and holly additionally present. Several tree stumps are present within this hedgerow. The ground flora includes, ivy, ground ivy, wood avens, bramble and garlic mustard.</p>
<p><i>h3h Mixed scrub, includes;</i></p> <p>Recreation Ground Scrub S1</p> <p>Moderate Condition</p>	<p>A dense stand of scrub is located at the edge of field G1 at the bottom corner of the allotments, this then extends north east as a wide linear feature (effectively a wide hedgerow), connecting with TL2 (described above). The widest section comprises a mature stand of elder, hawthorn and blackthorn <i>Prunus spinosa</i>. Patches of bare ground are present due to heavy footfall. The ground flora includes patches of ivy, common nettle and occasional garlic mustard, hogweed <i>Heracleum sphondylium</i>, cleavers, lords & ladies, white bryony <i>Bryonia dioica</i>, red dead nettle, common mallow <i>Malva sylvestris</i>, lesser celandine, chickweed and speedwell <i>Veronica sp.</i></p>

<p>Recreation Ground Scrub S2</p> <p>Poor Condition</p>	<p>Effectively comprises an extension of treeline TL2's understorey, formed by a dense stand of blackthorn and bramble. Ground flora is mostly comprised of ivy / leaf litter, with occasional lords & ladies and cleavers also present. The poor condition is primarily due to it comprising a single species and lack of regeneration.</p>
<p>Green Meadow Scrub S3</p> <p>Poor Condition</p>	<p>A line of scrub extends along the northern and western periphery of Green Meadow, including a mix of native species with a stand of non-native cherry laurel also present. The native species include hornbeam <i>Carpinus betulus</i>, apple <i>Malus sp.</i>, hazel, oak, elder, ash, bramble, holly, blackthorn, rowan, field maple and honeysuckle. Ground flora is absent under the cherry laurel, and otherwise includes ground ivy <i>Glechoma hederacea</i>, common nettle, Yorkshire fog, nipplewort <i>Lapsana communis</i>, cleavers, ivy, white bryony, bindweed <i>Convolvulus sp.</i>, herb Robert, cow parsley, red campion, wood avens, garlic mustard, green alkanet, ragwort <i>Senecio jacobaea</i> wood avens, garlic mustard and hedge woundwort. The poor condition is primarily attributable to the lack of age range within the scrub.</p>
<p><i>c1f7</i> <i>Polyculture</i></p> <p>616 Allotments At edge of G1 recreation Ground</p>	<p>A well used area of allotments is located at the northern section of field G1. These are well used with paths running between numerous vegetable plots and storage/greenhouses. Several small trees and stands of scrub are also present between the plots.</p>

Figure 3: Seer Green Baseline Habitat Map North (Recreation Ground)



Figure 4: Seer Green Baseline Habitat Map South (Green Wood, Cemetery and Green Meadow)



3.3 POTENTIAL FOR PROTECTED AND PRIORITY SPECIES

This section describes the potential for protected and priority species to be present or supported in the habitats found within the survey area at Seer Green. It also outlines the results of the data search of local species records, carried out by Buckinghamshire and Milton Keynes Environmental Records Centre.

Bats

The data search returned 9 records of bats within the Parish, including common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared bat *Plecotus auratus*, serotine *Eptesicus serotinus* and noctule *Nyctalus noctule*, ranging from 2010 to 2019. All are protected under Schedule 5 of the Wildlife and Countryside Act (WCA) and Annexe 4 of the Habitats Directive, whilst all except common pipistrelle are priority species. Several records were associated with Hodgemoor Wood SSSI to the north of the village, with others recorded along Longbottom Lane and Howard Crescent within the south and north of the village respectively.

Habitats at the site provide a variety of opportunities for bats. Mature trees within Green Wood, treelines at the Recreation Ground and scattered trees across the village likely support a number of potential roost features, whilst buildings will also often confer roosting potential such as from gaps under tiles, soffit boxes / barge boards, gaps in mortar leading to cavities / loft voids and numerous other small gaps/crevices.

Furthermore, the woodland, trees/treelines, hedgerows and scrub will support an elevated biomass of invertebrates which will support foraging bats, whilst linear features and woodland edge habitats will provide opportunities for commuting bats,

Birds

The data search returned 134 records of 36 species of notable bird species within the Parish, plus 1 record of an invasive species (Ring-necked parakeet *Psittacula kramera*, Schedule 9 WCA). Six species are protected under Schedule 1 Part 1 of the WCA including hobby *Falco Subbuteo*, brambling *Fringilla montifringilla*, red kite *Milvus milvus*, firecrest *Regulus*

ignicapillus, redwind *Turdus iliacus* and fieldfare *Turdus pilaris*. 14 records of Species of Principal Importance (S41 Priority Species) were also returned, of particular note including nightjar *Caprimulgus europaeus*, cuckoo *Cuculus canorus*, lesser spotted woodpecker *Dendrocopos minor* and tree sparrow *Passer montanus*. 16 species are included within the Red listed Birds of Conservation Concern (BoCC) and 15 are Amber listed BoCC.

The majority of these records are associated with Hodgemoor Wood SSSI and Long Grove Wood BBOWT Reserve, albeit sparrowhawk was recorded within Green Wood.

Habitats at the site provide a number of opportunities to support a relatively small but diverse and important assemblage of breeding birds, in particular including Green Wood, plus the treelines/scattered trees and hedgerows which also provide connectivity to habitats through the village and to the wider landscape. Indeed a number of birds were incidentally recorded during the habitat survey work, including:

- Blackbird *Turdus merula* and magpie *Pica pica* in the residential areas
- Ring-necked parakeet (invasive WCA Sch 9), blue tit *Cyanistes caeruleus*, woodpigeon *Calumba palumbus* (amber list), dunnoek *Prunella modularis* (amber list), blackbird, great tit *Parus major* and great spotted woodpecker *Dendrocopos major* at the Recreation Ground.
- Blue tit, chiff chaff *Phylloscopus collybita*, firecrest *Regulus ignicapillus* (WCA Sch 1.1), goldcrest *Regulus regulus*, song thrush *Turdus philomelos* (amber list), nuthatch *Sitta europaea*, coal tit *Periparus ater*, jay *Garrulus glandarius*, blackcap *Sylvia atricapilla* and ring-necked parakeet (invasive WCA Sch 9) in Green Wood.

Amphibians

The data search returned records of 4 amphibians, including 2 common toad *Bufo bufo* (S41 Priority species) and 2 common frog *Ranaria temporaria*, ranging from 1982 to 1998 (common frog) and 1982 to 2011 (common toad). These were associated with Hodgemoor Wood SSSI or did not have detailed location information available.

The survey area does not include suitable wetland habitat to support a breeding population of amphibians, however any garden ponds within the residential areas may support common

amphibians. The woodland habitat and scrub/treelines/hedgerow provide suitable terrestrial habitat for amphibians, whilst deadwood/brash piles and similar provide potential hibernacula.

Reptiles

The data search returned 2 records of grass snake *Natrix helvetica*, one of slow worm *Anguis fragilis* and one of adder *Vipera berus* within the Parish, all from 1982 and all being S41 Priority species. None had detailed location data available.

Habitats within the survey area offer potential opportunities for common reptiles, in particular including Green Wood and the treelines/scrub, whilst deadwood/brash piles and similar provide potential hibernacula.

Badger

Due to the persecution that badgers face, badger data and the location of setts should be treated as confidential and only shared with those that have a legitimate need for the information.

The data search returned several records of badger within the Parish, located at Hodgemoor Wood SSSI and Wilton Park (1km from the survey area).

No badger setts or definitive evidence of badgers were recorded within the survey area, though it is possible that they enter suitable habitat from adjacent land, such as within Green Wood.

Other mammals

Ten records from two other mammal species were returned from the data search (excluding bats); hedgehog *Erinaceus europaeus* and brown hare *Lepus europaeus*. These range from 1965 to 2018. Hedgehogs were recorded from several roads and Long Grove Wood BBOWT Reserve within the village (where location information was available), whilst brown hare were recorded from wider land 1km away from the village. The invasive (WCA Sch9) species edible dormouse *Glis glis* was also recorded within 1km of the village.

The site provides suitable habitat for hedgehog, in particular including Green Wood and the scrub/treelines, but also the residential gardens and recreation areas throughout the village.

Habitats at the village could also support the invasive species edible dormouse, including the woodland and buildings.

A vole (not identified to species) was incidentally recorded within Green Wood during the habitat survey.

Invertebrates

The data search returned 676 records from 67 species of invertebrate, the vast majority of which comprises moths, with several butterflies, an ant and two true bugs (Hemiptera) also recorded. 42 of these species are S41 Priority species, with many of the remainder being of Local Interest (conservation interest, ranging from low to high priority). Jersey tiger was recorded, which is protected under Annexe 2 of the Habitats Directive. A number of moth records were returned from Gurnell's Road in the village, potentially from a local moth recorder.

Habitats within the survey area are likely to support a reasonably diverse assemblage of invertebrates, especially Green Wood, plus the treelines/trees, hedgerows/scrub and annual wildflower grassland (as a nectar resource). Deadwood where retained in the survey area is particularly beneficial for this species group.

Several invertebrates were incidentally recorded during the habitat survey, including common carder bee *Bombus pascuorum*, mining bee *Andrena* sp., tawny mining bee *Andrena fulva*, black-and-yellow longhorn beetle *Rutpela maculate*, plus numerous micro moths within Green Wood (not identified).

4. DISCUSSION

The habitat survey work undertaken at Seer Green has identified a range of habitats of varying ecological value, ranging from semi-natural habitats of the greatest value, to intensively managed habitats of the least value.

In particular, the woodland Green Wood confers excellent opportunities for wildlife, supporting biodiversity within the village, whilst also providing connectivity to habitats in the wider landscape. The woodland is accordingly designated as a Priority Habitat and Ancient Woodland. Despite its relatively small size, this habitat is considered likely to support a locally important breeding bird, invertebrate and botanical assemblage, with bats also likely utilising the habitat. The main negative scoring factor under a biodiversity net gain assessment is due to the presence of invasive non-native (WCA Sch 9) species.

Other habitats considered to be of elevated ecological value include the treelines at the Recreation Ground, which are of value in of themselves, providing an important foraging and shelter resource for a range of fauna (i.e. birds, bats, invertebrates), but also provide good connectivity through an intensively managed area to habitats in the wider landscape.

Similarly, at a smaller scale, other habitats such as the scattered trees, hedgerows and scrub throughout Green Meadow, the Recreation Ground and the residential areas provide sheltering and foraging opportunities for the aforementioned species groups, in addition to 'stepping stone' connectivity through the village itself.

Although less natural in nature, the allotments at the recreation ground will nonetheless confer opportunities to a variety of species, such as a nectar resource for invertebrates.

The grassland habitats are generally of the lowest ecological value within the survey area, with their value being dictated by regular mowing to a short-sward. If for example, areas of grassland can be left uncut until late summer, such areas will likely show a greater floral diversity, will have flowered for longer and the varied sward height would have provided a greater range of conditions (sunny/shaded, damp/dry) suited to a greater range of invertebrates. Leaving the grassland undisturbed for a longer period also allows fauna to colonise and, for example, allows some invertebrates to complete their life cycle. The

aforementioned annual wildflower grassland areas at the village entrances do provide a valuable nectar resource for invertebrates.

A number of potential opportunities for biodiversity enhancements have been considered for the site, which are set out in the following section, to build on those opportunities for wildlife already afforded by the site and help tackle the biodiversity crisis which is occurring in the UK and beyond.

5. BIODIVERSITY ENHANCEMENT OPPORTUNITIES

This section of the report sets out a number of opportunities for potential enhancements that could be made to the benefit of biodiversity within the village. Different types of habitat creation and management recommendations are separated out, with consideration given to where might be most appropriate to apply them (though many could be implemented at a variety of locations).

5.1 MANAGEMENT OF EXISTING WOODLAND

Location: Green Wood

Green Wood comprises an ecologically valuable of habitat, designated as Ancient Woodland and Priority Habitat. Priority Habitats are a range of semi-natural habitat types that have been identified as being the most threatened and requiring conservation action and are listed as 'habitats of principal importance for the conservation of biodiversity in England' under Section 41 of the NERC Act (2006) (see Appendix B). In general a low intervention woodland management plan is recommended for such habitats to ensure their continued value for wildlife.

The woodland is overall considered to be in moderate condition, with factors preventing it from achieving a good condition primarily attributable to the presence of non-native invasive species. Removing such species will therefore provide new opportunities for native flora, including cherry laurel and variegated archangel. Cherry laurel was potentially more abundant previously, on reviewing historic reports regarding Green Wood. A proportion of the bluebells also now appear to comprise hybrid/Spanish bluebell, which threatens our native species. The careful removal (certainty of identification is required, as native bluebell is protected Sch 8 WCA) of such individuals will therefore likely be beneficial to the ground flora. Other species such as green alkanet and ground elder, although not under Sch9 of the WCA, can still be invasive to the detriment of other ground flora, which would likely benefit from their removal. In general, non-native plants which encroach from the adjacent cemetery / gardens would ideally be monitored and removed from the woodland ground flora.

Holly has previously been flagged as being over-dominant in the understorey, and has subsequently been subject to a degree of removal. Holly is a native species of some benefit, therefore some mature stands would ideally be retained, with new growth then subject to removal, as was recommended in previous reporting (Woodland Management – Green Wood, Chiltern Woodland Project, John Morris, August 2011).

Similarly, selective tree thinning was previously recommended, to a proportion of approximately 10% of existing trees, in order to allow more light to enter which will benefit the ground flora. Continuing this practice will still likely be of benefit, though should be undertaken sensitively, with due regard given to protected species such as nesting birds and roosting bats. It may be the case that ash trees within the wood succumb to ash dieback, which may provide such thinning regardless. Otherwise, small 'scaloped' sections along the footpath may best be targeted for tree thinning, or in close proximity to any new habitat creation such as a woodland pond (see below), or following removal of cherry laurel/holly to provide a small glade opening.

Deadwood is already present within the woodland, which is a highly valuable resource for a variety of species, such as bats, saproxylic invertebrates, fungi and lower plants. Where safe to do so, it is recommended standing deadwood is retained in situ, i.e. as a standing 'monolith'. Where this is not practicable, stumps should ideally be retained in situ to provide sunken deadwood, with a proportion of the other deadwood left at ground level either as sections of trunk, or habitat piles.

It is likely deer browsing is having some impact on the ground flora, though this would likely be difficult to control. A small fenced exclusion area of the ground flora could be instated, to see a comparison between areas and determine the level of impact deer may be having.

5.2 MANAGEMENT OF EXISTING HEDGEROWS AND TREELINES

Location: All existing hedgerows and treelines.

When hedgerows require management at the site, this could be done on a rotational basis, whereby sections of hedgerow are left each year to remain more outgrown. This will provide

additional cover for a range of fauna such as birds, invertebrates and small mammals, whilst retaining any food resource provided such as from berries over winter.

If safe to do so, standing deadwood within trees along the hedgerows would ideally be retained, to provide opportunities for wildlife such as roosting bats and saproxylic invertebrates.

Regarding the treelines, opportunities to create edge habitats can also be sought whereby low-growing shrubs and tall herbaceous species create a transition between the treeline and managed grassland. This provides an ecotone of value to a variety of fauna. In addition to this, several small additional 'scallop' areas could be included along the treeline, whereby such vegetation is cut back on a rotational basis, to provide additional habitat niches for flora and the species they support.

The blackthorn scrub (such as at the Recreation Ground) provides a resource as shelter and foraging for a number of species. Although requiring management to prevent it encroaching into the nearby grassland, retaining a proportion of 'sucker' growth provides an important resource for rare black and brown hairstreak butterflies (of local provenance), which lay their eggs on such growth to overwinter.

As with the woodland described above, some non-native/invasive cherry laurel, green alkanet and ground elder was recorded. Removing such species would likely benefit the flora present, enhancing the botanical diversity and providing new opportunities for associated fauna.

Although relatively continuous at present, the treelines comprise a number of ash trees, which may benefit from re-planting with a native species such as oak, should they succumb to ash dieback in the future.

5.3 RETENTION OF MATURE TREES AND SHRUBS

Location: All mature trees and shrubs throughout the village.

Existing mature trees and shrubs are of elevated ecological value, and whilst forming a component of otherwise valuable habitats such as the woodland, are also of particular importance throughout the more intensively managed and residential areas.

Accordingly, these features should be retained and protected. Any pruning works should be undertaken sensitively avoiding features of interest. Where practicable, deadwood and any cavities, rot holes, cracks and peeling bark should be retained. Standing deadwood is a valuable habitat to a range of saproxylic invertebrates, many of which are rare or threatened due to a decline in deadwood habitat from over-management and it is a valuable habitat resource that is difficult to recreate.

Nesting birds and roosting bats can be harmed by works that affect features they are using and due to their conservation status all nesting birds and roosting bats are protected under UK law. Work that would remove or could potentially damage such features should therefore be avoided or undertaken when the species are absent (such as outside of the bird nesting season which runs from March to August inclusive). It is recommended that species specific survey work is undertaken to determine this.

As mentioned previously, if trees are felled, tree stumps, or better still monolithed tree stems of substantial height if feasible, should be left in situ where possible, as the below and above ground deadwood will continue to provide a habitat for fungi and invertebrates. Standing deadwood habitats can be enhanced by creating crevices and holes for nesting and roosting purposes, for example with skilled use of chainsaws to make wedge-shaped crevices with narrow entrances for roosting bats or nesting birds such as tree-creepers.

5.4 CREATION OF LOG PILES AND LOG PYRAMIDS

Location: Relatively undisturbed areas within woodland / woodland edge, treelines, scrub or within any suitable new areas of habitat created.

Where it is not practicable to retain standing deadwood/deadwood in a tree canopy, it can be used to create log piles within the grounds, as it will continue to provide a deadwood resource (although not suited to all saproxylic species).

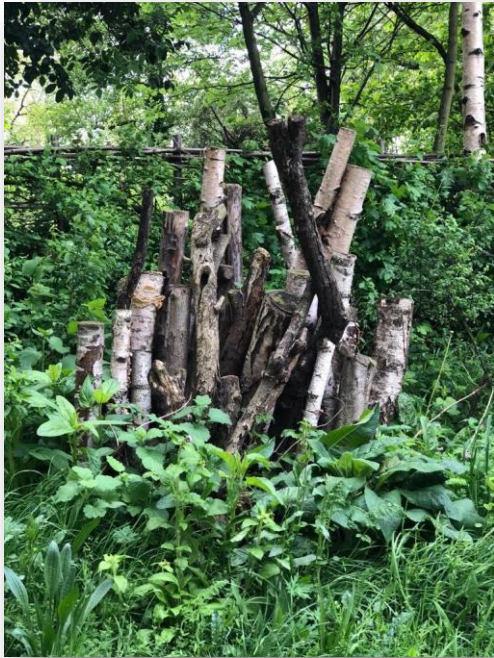


Photo: a log pyramid at the Natural History Museum garden (Ross Bower).

Log piles and log pyramids should also be created using deadwood and/or other woody vegetation removed during maintenance works. Deadwood habitats should include sections below ground to optimise the ecosystem of decaying wood. These would provide habitat for a range of invertebrates and would provide suitable habitat for the stag beetle, which requires subterranean decaying wood for its larvae, and is a species in decline. They would also provide shelter for small mammals and could provide refuges for reptiles and amphibians, should they be present or colonise the site in future.

In turn, the increased invertebrate resource would increase the food source available for a range of insectivores including, bats, some birds and hedgehogs/small mammals.

5.5 WILDFLOWER GRASSLAND

Location: Grassland not required to be maintained at a short-sward, such as at the periphery of the Recreation Ground / Green Meadow / Cemetery, within the square of grassland between the allotments and scrub (plus around nearby benches) and at road verges throughout the village.

The existing grassland is generally well-managed and of a relatively low species diversity. Where areas are not required to be maintained for sports use or other formal setting, new areas of wildflower grassland could be created. Some potential for greater diversity is already evident, such as where knapweed is present at road verge V3 on School Lane.

This could be achieved through a change in management, such as through a single late season cut which allows as many flowers as possible to set seed (i.e. late July to September inclusive), with some variation on timings each year preventing the dominance of a single species. Arisings should be removed (a small selection can be left to allow seed to set and invertebrates to complete their life cycles, the remainder could be composted) to prevent excess nutrient input into the soil, which can reduce diversity. This can be followed by a second cut, to prevent a buildup of thatch. The grassland would then ideally be left until next July-September.

More cuts would likely be needed in initial years to curtail the dominance of coarse grasses / pernicious weeds such as docks and thistles. Yellow rattle *Rhinanthus minor* can also be planted, a hemi-parasite of grasses, to help a more diverse sward establish. Overseeding may also be helpful where a more diverse sward fails to establish (which will likely take a number of years due to the history of mowing).



Within larger areas in particular, mowing could be used to create discrete paths and margins and offer a more varied sward to appeal to a greater variety of species, and to make the grassland more accessible to residents, whilst indicating the management is deliberate.

Photo: Phil Townsend

5.5 SPECIES-RICH LAWNS

Location: Anywhere a more formal looking grassland is required / preferred, including the Recreation Ground, Green Meadow, the cemetery and road verges.

The areas of regularly mown grassland were found to be the habitat of least value to biodiversity currently due to the relatively low species diversity and frequent disturbance from mowing. Turning areas into wildflower grassland should be considered the optimal approach to increasing their diversity, where practicable. However, should areas of formal lawn be desired, they can still be enhanced by increasing the diversity of wildflowers present.

Species like clover *Trifolium repens*, dandelion *Taraxacum officinale*, common daisy *Bellis perennis*, germander speedwell *Veronica chamaedrys* and self heal *Prunella vulgaris* will all provide increased foraging opportunities for pollinators. They are also resilient enough to tolerate some mowing so these areas can still be kept short, however a slightly less frequent mowing regime would benefit them further.

Where not already present, these species can be introduced to the lawn using seed, or plug plants for faster establishment (plug-plants will require watering until established). In areas where there is less footfall more species can be introduced for example birds-foot trefoil *Lotus corniculatus*, cowslips *Primula veris* and lady's bedstraw *Galium verum*. These plants are another nectar source but are also the larval foodplants of species like elephant hawk moth *Deilephila elpenor*, Duke of Burgundy butterfly *Hamearis lucina*, and common blue butterfly *Polyommatus icarus*.

Some taller sward areas could also potentially be left under trees, which for example was noted at the end of Gurnells Road, which will contribute to a wider variety of grassland habitat niches.

These could be used as an impact statement in the village to show the Parish's commitment to biodiversity.

5.7 OTHER POTENTIAL ENHANCEMENT OPPORTUNITIES AT THE SITE

Provision of Traditional Orchard Habitat

Traditional orchards are a Priority Habitat which is in decline, which provide a wide variety of benefits for wildlife, and are known to have been historically frequent and of provenance to the area, with MAGIC mapping indicating a number at and near to the village. New orchards could potentially be provided within areas of wildflower grassland, planted with fruit trees of local provenance, such as within the square of grassland adjacent to the allotments within the Recreation Ground.



Photo: The Wildlife Trusts

Provision of New Ponds

Ponds are another important habitat which are declining in the landscape, benefiting a wide range of flora and fauna, such as amphibians, invertebrates, birds and mammals. Providing a new pond(s) would therefore provide a significant enhancement for biodiversity. A potential location for consideration could include within newly cleared areas at Green Wood's periphery, should cherry laurel / holly be removed.

The most beneficial ponds have irregular edges, with predominantly wide, gentle, shallow slopes and a fringe of wet tolerant grasses and herbs to benefit amphibians and invertebrates such as dragonflies/damselflies. Ponds need only be shallow, i.e. 10-20cm, down to 2-10cm at the edges (sunny edges particularly benefit shallow water). Several deeper areas can be included depending on the size of the pond, around 50-60cm deep, to help provide resilience against drying. It should be noted however, that ponds occasionally drying is a natural

occurrence for many ponds, and that different types of pond support different species assemblages. Therefore it can be beneficial to have ponds which rarely or never dry, in addition to ponds which seasonally dry.



Opportunities to include bodies of water in other locations could also be considered due to their high value. For example, even small containers of water can support aquatic flora and a range of invertebrates and provide a source of drinking water for other fauna, such as mammals and birds.

Photo: Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust

Climate change is predicted to result in hotter and drier summers meaning areas of standing water in the summer will become increasingly scarce. The provision of permanent sources of water within the village will therefore be highly beneficial for wildlife.

Allotments

The existing allotments appear well used and likely provide opportunities for a range of wildlife. If not already considered / in practice, the following two management measures can provide additional benefits;

- No dig allotments – an organic practice whereby a layer of mulch is added before planting, which can help restore soil structure and reduce the need for fertilisers and irrigation, plus retain CO₂ within the soil below.
- Companion planting – combinable with no-dig allotments, this practice involves planting different species in close proximity to provide mutual benefit, such as attracting pollinators, deterring pests or creating optimal environments.

Low Nutrient Substrates

If any building materials such as crushed concrete, brick and sand are left over from works to buildings within the village, these can potentially be crushed and used to create discrete areas with a low nutrient substrate (this can be as simple as holding back a parking space), which provides opportunities for different flora which thrives in early successional habitats. Undesirable pernicious weeds can be easily pulled from such a substrate to maintain the diversity of species. Artificial nesting sites such as bee hotels can particularly benefit from being placed in such habitats.

Retention of 'Undesirable' Species

Species such as bramble and common nettle are native and provide a foodplant for charismatic butterflies such as green hairstreak (bramble), comma, red admiral, small tortoiseshell and peacock⁴. Bramble also provides an important food resource for other wildlife. Retaining some discrete areas of these species is therefore beneficial for wildlife, though they should of course be prevented from encroaching too significantly into other habitats.

Ivy is also an important species in terms of providing a late nectar and berry resource for invertebrates and birds respectively. This can be maintained, for example, on bare surfaces of buildings and walls as a beneficial habitat.

Additionally, as was mentioned above, retaining some blackthorn sucker growth in addition to more mature stands, provides a resource for the rare butterflies black and brown hairstreak (of local provenance) which lay their eggs on this species to overwinter.

New Shrub/Hedgerow/Tree Planting

Opportunities for new shrub and hedgerow planting appear to be relatively limited given the space available (some was noted by the cemetery) within the survey area, however if practicable to incorporate elsewhere, a mix of new native and fruit/nut bearing species would provide the most benefit.

⁴ [UK Butterflies - Larval Foodplants](#)

Nest Boxes and Insect Hotels

There are opportunities for providing new features for fauna, both within the survey area and at the homes of interested residents, including;

- *Bat boxes* installed on mature trees (or buildings). A mixture of crevice and cavity type boxes, ideally made from woodcrete, and facing a south-east to south-west direction away from artificial light sources at least 4m high.
- *Bird boxes* can also be installed on mature trees (or buildings). A variety of bird boxes will be of most benefit, such as generalist bird boxes, owl/bird of prey boxes, sparrow terraces and swift boxes (the latter two are suitable for fitting on buildings to benefit these red list species). Bird boxes are best installed 2-4m high (higher for swift and sparrow boxes), facing between north and east with a clear flight entrance.
- *Habitat piles* – deadwood and brash from vegetation works can be used to create habitat piles, i.e. at the woodland edge. These will provide refugia / hibernacula for a variety of fauna, such as hedgehogs, reptiles, amphibians, and will benefit saproxylic invertebrates.
- *Hedgehog refugia / access holes* – specific hedgehog shelters can be purchased / created to benefit this priority species, to be kept in relatively undisturbed areas both within semi-natural habitats and gardens. Maintaining access between gardens can also be of great benefit, such as through small cut-outs at the bottom of fences.
- *Insect hotels / bee bricks* – insect hotels can be constructed / purchased, and bee bricks incorporated into buildings, to provide additional nesting habitats for declining species such as solitary bees. New honey bee hives are not generally recommended without significant new wildflower provision, as they can reduce the availability of nectar for declining native bees.

Cornfield Annuals

These are already present at the main village entrances. Although wildflower grassland as described above can provide the most valuable habitat (i.e. a year round habitat), cornfield annual habitat nonetheless provides an attractive display of colour, and a valuable nectar resource for invertebrates. Opportunities for additional areas could be considered at other

sections of grassland within the village, such as the cemetery and road verges, or periphery of Green Meadow / the Recreation Ground.



Photo: Councillor Carole Hughes

Engagement and Future Monitoring

Many of the suggested enhancements can appear, at first glance, to be a negative change to areas which have been managed for many years for a tidy, clean aesthetic with wildlife as an afterthought. In order to mitigate against opposition to changes that benefit wildlife, an engagement campaign could be started to include members of the local community in the improvements for wildlife.

Monitoring groups could be set up to record the changes in species present on the site, measure any improvements and report them to the local records centre. For example, 'citizen science' type monitoring surveys can be undertaken, which range in the amount of identification skill / species knowledge needed. They could be targeted at specific areas of the site, such as the woodland and any new areas of wildflower grassland. Several of these schemes include the following;

- RSPB (and BTO) - Garden Birdwatch.

- Butterfly Conservation Trust - Big Butterfly Count.
- UK Pollinator Monitoring Scheme.

Any local specialists may also wish to assist with more detailed surveys, whilst Future Nature are able to undertake a range of detailed species specific surveys, including breeding birds, bats and invertebrates.

Illustrated interpretation boards are also a useful tool to highlight the benefits of changes for wildlife as well as the benefits of an enhanced natural environment to people.

6. CONCLUSION

Opportunities for wildlife within Seer Green village are predominantly concentrated within several habitats, namely Green Wood, plus the treelines/scattered trees, scrub and hedgerows such as at the Recreation Ground/Green Meadow. Invasive species are having some detrimental impacts on these habitats.

The grassland is generally of less biodiversity value, due to the regular management, however some particular areas were notable, including the annual wildflowers at the village entrances, a striking display of spring crocus reported in the cemetery, and knapweed recorded in a road verge to the south east. These provide important nectar resources for invertebrates, with the knapweed indicating the potential for favourable management to bring about greater diversity.

A number of opportunities exist at the village to provide new opportunities for wildlife, including through particular management prescriptions such as at Green Wood and various areas of grassland, plus through new habitat creation such as from ponds or orchards. Other potential enhancements can be brought about through the provision of new faunal features, such as habitat piles, bat/bird boxes and hedgehog cutouts.

The above measures have been suggested depending on their relevance for particular habitat types, differing between semi-natural and more intensively managed habitats.

Implementing such measures could significantly increase the biodiversity in the village, increasing the overall biodiversity in the area and provide a stepping stone between other high value habitats in the wider landscape.

The Parish has an opportunity make a real contribution towards the nature and climate change emergencies and to set a precedent for other Parishes and organisations to follow.

NEXT STEPS

Suggestions for the next steps the Parish could take towards enhancing biodiversity within the grounds are set out below:

1. Undertake further surveys of the existing habitats to gain a better understanding of the baseline value of the grounds. This information can then be used to measure change as new habitats are introduced and as they develop. It can also inform where changes to habitat design or management are required to provide further enhancements. This could include surveys for; bats; birds; and invertebrates.
2. Produce more detailed management plans, planting ideas and habitat creation plans to ensure positive outcomes.
3. Research potential sources of funding for implementing any recommended measures, especially for example ambitious habitat creation if wanting to add ponds or orchards within the village.

Future Nature is able to provide direction on the above points.

APPENDICES

APPENDIX A – SITE PHOTOS



Photo 1: Typical section of Green Wood, showing Holly understorey and patches of ground flora where light reaches through.



Photo 3: Cherry laurel still occasionally present within Green Wood, would benefit from further removal.



Photo 5: A typical short-sward grass verge, with occasional trees present.



Photo 2: Retained deadwood stump with fungi evident, a valuable habitat.



Photo 4: Cherry laurel transition to native scrub at periphery of Green Meadow.



Photo 6: Tall sward grassland under tree at V11 (Gurnells Road), which could be replicated elsewhere.



Photo 7: Small woodland plot W1 at corner of Recreation Ground, a valuable habitat, though with detrimental cherry laurel present.



Photo 8: Treeline TL1 along the western boundary of the Recreation Ground, an important habitat feature in of itself, and for connectivity of habitats.



Photo 9: Green alkanet dominating at edge of treeline TL1, which can outcompete other flora.



Photo 10: Dense stand of blackthorn at Recreation Ground, a valuable foraging and shelter resource for wildlife.



Photo 11: Recreation Ground grassland at edge of allotments with trees and hedgerow evident. Potential for wildflower grassland / orchard provision.



Photo 12: Recreation Ground grassland around benches in north west section. Potential for new wildflower provision..

APPENDIX B - POLICY AND LEGISLATION

Natural Environment and Rural Communities (NERC) Act 2006^{5 6}

Section 41 – Biodiversity list and Action

Section 41 – Requires the Secretary of State *to publish a list of the living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity. They must also take such steps as appear to the Secretary of State 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.*

The 2007 lists were superseded by the UK Post-2010 Biodiversity Framework.

UK Priority Habitats (excl. marine habitats) ⁷	
UK BAP broad habitat	UK BAP priority habitat
Rivers and Streams	Rivers
Standing Open Waters and Canals	Oligotrophic and Dystrophic Lakes
	Ponds
	Mesotrophic Lakes
	Eutrophic Standing Waters
	Aquifer Fed Naturally Fluctuating Water Bodies
Arable and Horticultural	Arable Field Margins
Boundary and Linear Features	Hedgerows
Broadleaved, Mixed and Yew Woodland	Traditional Orchards
	Wood-Pasture and Parkland
	Upland Oakwood
	Lowland Beech and Yew Woodland
	Upland Mixed Ashwoods
	Wet Woodland
	Lowland Mixed Deciduous Woodland
	Upland Birchwoods
Coniferous Woodland	Native Pine Woodlands
Acid Grassland	Lowland Dry Acid Grassland
Calcareous Grassland	Lowland Calcareous Grassland
	Upland Calcareous Grassland
Neutral Grassland	Lowland Meadows
	Upland Hay Meadows
Improved Grassland	Coastal and Floodplain Grazing Marsh
Dwarf Shrub Heath	Lowland Heathland
	Upland Heathland
Fen, Marsh and Swamp	Upland Flushes, Fens and Swamps
	Purple Moor Grass and Rush Pastures
	Lowland Fens
	Reedbeds

⁵ <https://www.legislation.gov.uk/ukpga/2006/16/section/40>

⁶ <https://www.legislation.gov.uk/ukpga/2006/16/section/41>

⁷ <http://jncc.defra.gov.uk/page-5706>

Bogs	Lowland Raised Bog
	Blanket Bog
Montane Habitats	Mountain Heaths and Willow Scrub
Inland Rock	Inland Rock Outcrop and Scree Habitats
	Calaminarian Grasslands
	Open Mosaic Habitats on Previously Developed Land
	Limestone Pavements
Supralittoral Rock	Maritime Cliff and Slopes
Supralittoral Sediment	Coastal Vegetated Shingle
	Machair
	Coastal Sand Dunes

Protected Species Legislation

European Protected Species

European Protected Species (EPS) are species of plants and animals (other than birds) protected by law throughout the European Union. They are listed in Annexes II and IV of the European Habitats Directive and

receive full protection under The Conservation of Species and Habitats Regulations (as amended) 2019. This makes it an offence to:

- deliberately capture, injure or kill any European Protected Species (EPS)
- to deliberately disturb any European Protected Species (EPS);
- to damage or destroy a breeding site or place of rest or shelter used by any European Protected Species (EPS).

The Wildlife and Countryside Act 1981 (as amended) adds further protection by making it an offence to intentionally or recklessly⁸ disturb an EPS while it is occupying a structure or place which it uses for shelter or protection, or to obstruct access to any structure or place the species uses for shelter or protection.

European Protected Species relevant to the UK			
Animals		Plants	
All bat species	Great Crested Newt	Yellow marsh saxifrage	Creeping marshwort
Large blue butterfly	Otter	Shore dock	Slender naiad
Wild cat	Smooth snake	Killarney fern	Fen Orchid
Marine turtles, dolphins, porpoises and whales (all species)	Sturgeon fish	Early gentian	Floating-leaved water plantain
Dormouse	Natterjack toad	Lady's slipper	

⁸ Under the Countryside and Rights of Way Act 2000 (CROW Act) extended the protection to cover reckless damage or disturbance

Sand lizard	Pool Frog
Fisher's Estuarine Moth	Snail, Lesser Whirlpool Ram's-horn

Other Protected Species

Birds

Wildlife and Countryside Act 1981 (as amended)

Under the Wildlife and Countryside Act (1981) it is an offence if any person:

- intentionally kills, injures or takes any wild bird
- intentionally takes, damages or destroys the nest of any wild bird whilst that nest is in use or being built;
- intentionally takes, damages or destroys eggs of any wild bird;

Wild birds listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) are protected from:

- intentional or reckless disturbance whilst it is building a nest or is in, on or near a nest containing eggs or young;
- disturbance of dependent young

APPENDIX C – PROTECTED SPECIES AND SPECIES OF CONSERVATION CONCERN DESK STUDY RESULTS⁹

Scientific name	Common Name	European Directives	UK Legislation	NERCs ⁴¹	Other Designations
Invasive Species					
<i>Psittacula krameri</i>	Ring-necked Parakeet		WCA9		
<i>Cotoneaster simonsii</i>	Himalayan Cotoneaster		WCA9		
<i>Crassula helmsii</i>	New Zealand Pigmyweed		WCA9		
<i>Crocosmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia		WCA9		
<i>Lamiaeum galeobdolon</i> <i>subsp. argentatum</i>	Variegated Yellow Archangel		WCA9		
<i>Rhododendron ponticum</i>			WCA9		
<i>Glis glis</i>	Fat Dormouse		WCA9		
Amphibians					
<i>Bufo bufo</i>	Common Toad		WCA5	S41	
<i>Rana temporaria</i>	Common Frog	HDir5	WCA5		

⁹ Sch = Schedule

Birds					
<i>Acanthis cabaret</i>	Lesser Redpoll			S41	
<i>Acanthis flammea</i>	Common (Mealy) Redpoll				UKBR (UK BoCC Bird Red List)
<i>Accipiter nisus</i>	Sparrowhawk				UKBA
<i>Anthus trivialis</i>	Tree Pipit			S41	UKBR
<i>Apus apus</i>	Swift				UKBR
<i>Caprimulgus europaeus</i>	Nightjar			S41	UKBA (UK BoCC Bird Amber List)
<i>Chloris chloris</i>	Greenfinch				UKBR
<i>Coccothraustes coccothraustes</i>	Hawfinch			S41	UKBR
<i>Columba oenas</i>	Stock Dove	BDir2.2			UKBA
<i>Columba palumbus</i>	Woodpigeon	BDir2.1			UKBA
<i>Corvus frugilegus</i>	Rook	BDir2.2			UKBA
<i>Cuculus canorus</i>	Cuckoo			S41	UKBR
<i>Curruca communis</i>	Whitethroat				UKBA
<i>Dryobates minor</i>	Lesser Spotted Woodpecker			S41	UKBR
<i>Emberiza citrinella</i>	Yellowhammer			S41	UKBR
<i>Falco subbuteo</i>	Hobby		WCA1.1		
<i>Falco tinnunculus</i>	Kestrel				UKBA

<i>Fringilla montifringilla</i>	Brambling		WCA1.1		
<i>Luscinia megarhynchos</i>	Nightingale				UKBR
<i>Milvus milvus</i>	Red Kite	BDir1	WCA1.1, WCA9		
<i>Oenanthe oenanthe</i>	Wheatear				UKBA
<i>Passer domesticus</i>	House Sparrow			S41	UKBR
<i>Passer montanus</i>	Tree Sparrow			S41	UKBR
<i>Phylloscopus trochilus</i>	Willow Warbler				UKBA
<i>Poecile palustris</i>	Marsh Tit			S41	UKBR
<i>Prunella modularis</i>	Dunnock			S41	UKBA
<i>Pyrrhula pyrrhula</i>	Bullfinch			S41	UKBA
<i>Regulus ignicapilla</i>	Firecrest		WCA1.1		
<i>Scolopax rusticola</i>	Woodcock	BDir2.1,			UKBR
<i>Strix aluco</i>	Tawny Owl	BDir2.2			UKBA
<i>Sturnus vulgaris</i>	Starling			S41	UKBR
<i>Troglodytes troglodytes</i>	Wren	BDir1		BAP (pre-S41 Priority Species)	UKBA
<i>Turdus iliacus</i>	Redwing	BDir2.2	WCA1.1		UKBA
<i>Turdus philomelos</i>	Song Thrush	BDir2.2		S41	UKBA
<i>Turdus pilaris</i>	Fieldfare	BDir2.2	WCA1.1		UKBR
<i>Turdus viscivorus</i>	Mistle Thrush	BDir2.2			UKBR

Plants (excluding bryophytes)					
<i>Pinus sylvestris</i>	Scots Pine				Other i.e. Red Data Book/IUCN Red List, such species included for interest
<i>Dryopteris affinis</i>	Scaly Male-fern				LI[County Scarce] (Local Interest)
<i>Polystichum aculeatum</i>	Hard Shield-fern				LI[County Scarce]
<i>Agrimonia procera</i>	Fragrant Agrimony				LI[County Scarce]
<i>Briza media</i>	Quaking-grass				Other
<i>Bromus secalinus</i>	Rye Brome				LI[County Scarce]
<i>Calluna vulgaris</i>	Heather				Other
<i>Campanula rotundifolia</i>	Harebell				Other
<i>Cardamine bulbifera</i>	Coralroot Bittercress				Other
<i>Cichorium intybus</i>	Chicory				Other
<i>Cruciata laevipes</i>	Crosswort				Other
<i>Erysimum cheiranthoides</i>	Treacle-mustard				Other
<i>Fragaria vesca</i>	Wild Strawberry				Other
<i>Helleborus foetidus</i>	Stinking Hellebore				Other
<i>Hieracium virgultorum</i>	Long-leaved Hawkweed				Other
<i>Hyacinthoides non-scripta</i>	Bluebell		WCA8		

<i>Knautia arvensis</i>	Field Scabious				Other
<i>Lithospermum arvense</i>	Field Gromwell				Other
<i>Lonicera xylosteum</i>	Fly Honeysuckle				Other
<i>Melampyrum pratense</i>	Common Cow-wheat				Other
<i>Mentha arvensis</i>	Corn Mint				Other
<i>Oxalis acetosella</i>	Wood-sorrel				Other
<i>Pedicularis sylvatica</i>	Lousewort				Other
<i>Polygala serpyllifolia</i>	Heath Milkwort				LI[County Scarce]
<i>Potentilla erecta</i>	Tormentil				Other
<i>Ranunculus flammula</i>	Lesser Spearwort				Other
<i>Rubus britannicus</i>					Other
<i>Sanicula europaea</i>	Sanicle				Other
<i>Solidago virgaurea</i>	Goldenrod				Other
<i>Succisa pratensis</i>	Devil's-bit Scabious				Other
<i>Veronica officinalis</i>	Heath Speedwell				Other
<i>Viola tricolor</i>	Wild Pansy				Other
<i>Boletus moravicus</i>	Tawny Bolete				Other
Invertebrates					
<i>Apatura iris</i>	Purple Emperor		WCA5		LI[High Priority]
<i>Argynnis paphia</i>	Silver-washed Fritillary				LI[Low Priority]
<i>Callophrys rubi</i>	Green Hairstreak				LI[Low Priority]

<i>Coenonympha pamphilus</i>	Small Heath			S41	
<i>Limenitis camilla</i>	White Admiral			S41	
<i>Thymelicus lineola</i>	Essex Skipper				LI[Low Priority]
<i>Lasius brunneus</i>	Brown Tree Ant				Other
<i>Acronicta psi</i>	Grey Dagger			S41	
<i>Acronicta rumicis</i>	Knot Grass			S41	
<i>Agrochola lychnidis</i>	Beaded Chestnut			S41	
<i>Allophyas oxyacanthae</i>	Green-brindled Crescent			S41	
<i>Amphipoea oculatea</i>	Ear Moth			S41	
<i>Amphipyra tragopoginis</i>	Mouse Moth			S41	
<i>Anchoscelis helvola</i>	Flounced Chestnut			S41	
<i>Anchoscelis litura</i>	Brown-spot Pinion			S41	
<i>Apamea anceps</i>	Large Nutmeg			S41	
<i>Apamea remissa</i>	Dusky Brocade			S41	
<i>Aporophyla lutulenta</i>	Deep-brown Dart			S41	
<i>Asteroscopus sphinx</i>	Sprawler			S41	
<i>Atethmia centrargo</i>	Centre-barred Sallow			S41	
<i>Atolmis rubicollis</i>	Red-necked Footman				LI[Medium Priority]
<i>Brachylomia viminalis</i>	Minor Shoulder-knot			S41	BAP, S41
<i>Calophasia lunula</i>	Toadflax Brocade				Other

<i>Caradrina morpheus</i>	Mottled Rustic			S41	
<i>Chrysoclista linneella</i>	Lime Cosmet				LI[Medium Priority]
<i>Cirrhia icteritia</i>	Sallow			S41	
<i>Coleophora currucipennella</i>	Scarce Wood Case-bearer				LI[Medium Priority]
<i>Coleophora hemerobiella</i>	Black-stigma Case-bearer				LI[Medium Priority]
<i>Conistra rubiginea</i>	Dotted Chestnut				LI[Medium Priority]
<i>Cucullia lychnitis</i>	Striped Lychnis			S41	LI[High Priority]
<i>Cyclophora annularia</i>	Mocha				LI[Medium Priority]
<i>Cymatophorina diluta</i>	Oak Lutestring			S41	
<i>Diarsia rubi</i>	Small Square-spot			S41	
<i>Diloba caeruleocephala</i>	Figure of Eight			S41	
<i>Ecliptopera silaceata</i>	Small Phoenix			S41	
<i>Eilema sororcula</i>	Orange Footman				LI[Medium Priority]
<i>Elegia similella</i>	White-barred Knot-horn				Other
<i>Ennomos erosaria</i>	September Thorn			S41	
<i>Ennomos fuscantaria</i>	Dusky Thorn			S41	
<i>Ennomos quercinaria</i>	August Thorn			S41	
<i>Eucosmomorpha albersana</i>	Honeysuckle Bell				LI[Medium Priority]
<i>Euplagia quadripunctaria</i>	Jersey Tiger	HDir2			

<i>Hemistola chrysoprasaria</i>	Small Emerald			S41	
<i>Hepialus humuli</i>	Ghost Moth			S41	
<i>Hoplodrina blanda</i>	Rustic			S41	
<i>Hydraecia micacea</i>	Rosy Rustic			S41	
<i>Hypena rostralis</i>	Buttoned Snout				LI[High Priority]
<i>Hypomecis roboraria</i>	Great Oak Beauty				LI[Medium Priority]
<i>Idaea rusticata</i>	Least Carpet				LI[Medium Priority]
<i>Leucania comma</i>	Shoulder-striped Wainscot			S41	
<i>Litoligia literosa</i>	Rosy Minor			S41	
<i>Lycia hirtaria</i>	Brindled Beauty			S41	
<i>Lymantria dispar</i>	Gypsy Moth				Other
<i>Orthosia gracilis</i>	Powdered Quaker			S41	
<i>Parascotia fuliginaria</i>	Waved Black				LI[Medium Priority]
<i>Pediasia contaminella</i>	Waste Grass-veneer				Other
<i>Perizoma albulata</i>	Grass Rivulet			S41	
<i>Scotopteryx chenopodiata</i>	Shaded Broad-bar			S41	
<i>Spilosoma lubricipeda</i>	White Ermine			S41	
<i>Spilosoma lutea</i>	Buff Ermine			S41	
<i>Synanthedon tipuliformis</i>	Currant Clearwing				LI[Medium Priority]
<i>Tholera decimalis</i>	Feathered Gothic			S41	

<i>Timandra comae</i>	Blood-vein			S41	
<i>Tyria jacobaeae</i>	Cinnabar			S41	
<i>Watsonalla binaria</i>	Oak Hook-tip			S41	
<i>Adomerus biguttatus</i>	Cow Wheat Shieldbug				Other
<i>Austroagallia sinuata</i>					Other
Bryophytes					
<i>Leucobryum glaucum</i>	Large White-moss	HDir5			
Reptiles					
<i>Anguis fragilis</i>	Slow-worm		WCA5	S41	
<i>Natrix helvetica</i>	Grass Snake		WCA5	S41	
<i>Vipera berus</i>	Adder		WCA5	S41	
Mammals					
<i>Chiroptera</i>	Bat	HDir4	WCA5		
<i>Eptesicus serotinus</i>	Serotine	HDir4	WCA5		
<i>Erinaceus europaeus</i>	Hedgehog			S41	
<i>Lepus europaeus</i>	Hare			S41	
<i>Meles meles</i>	Badger		PBA (Protection Of Badgers Act)		
<i>Nyctalus noctula</i>	Noctule Bat	HDir4	WCA5	S41	
<i>Pipistrellus pipistrellus</i>	Pipistrelle	HDir4	WCA5		
<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	HDir4	WCA5	S41	

<i>Plecotus auritus</i>	Brown Long-eared Bat	HDir4	WCA5	S41	
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