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Moore Land, Collin Lane, Willersey.

Ecological Appraisal

July 2017

Notice to readers:

The results of the survey and assessment work undertaken by All Ecology are representative at the time of surveying.

Every endeavour has been made to identify the presence of protected species on site, where this falls within the agreed scope of works.

The flora and fauna detailed within this report are those noted during the field survey and from anecdotal evidence. It should not be viewed as a complete list of flora and fauna species that may frequent or exist on site at other times of the year.

Up to date standard methodologies have been used, which are accepted by Natural England and other statutory conservation bodies. No responsibility will be accepted where these methodologies fail to identify all species on-site.

All Ecology cannot take responsibility where Government, national bodies or industry subsequently modify standards.

All Ecology cannot accept responsibility for data collected from third parties.

Reference to sections or particular paragraphs of this document taken out of context may lead to misrepresentation.

Contents

1.0 Introduction

Background

1.1 All Ecology was commissioned to undertake an Ecological Appraisal of a site known as Moore Land, Collin Lane, Willersey, Broadway, Gloucestershire, WR12 7PE (Grid Ref: SP 1015 3978). The site is comprised of a grassland field which, at the time of the survey, was being grazed by a small number of cattle and sheep. Apart from the main gated entrance in the south-west corner and another gateway to the adjoining field in the south-east corner, it is primarily surrounded by species-poor hedge and species-poor hedge and trees, plus several small areas of scrub and a small number of mature trees. Two small dilapidated wooden buildings flank the main entrance. One is overgrown with Ivy. and the other fronted by tall ruderal species. A small ditch with trickling water runs the length of the east boundary between the grassland and hedgerow. The site is surrounded primarily by other agricultural land, with the exception of a small number of dwellings to the northeast.

1.2 An Ecological Appraisal was carried out by All Ecology in July 2017 to provide supporting information for a planning application for a housing development which will result in the loss of the majority of the grassland on site. The boundary features will largely be retained with the exception of a new entrance to be created in the east boundary hedge.

1.3 The aim of the survey was to identify features of ecological interest, undertake a basic search of habitats present for evidence of use, or potential use, by protected species, and to identify any other possible ecological constraints to the development.

Site Location

2.0 Methodology

Desk Study

2.1 In order to compile background information on the site and immediate surroundings, Gloucestershire Centre for Environmental Records (GCER) was contacted.

2.2 Information requested was as follows:

- Statutory site designations on or within 1 km of the site
- Non-statutory site designations on or within 1 km of the site.
- Records of protected species within the 1 km of the site.
- Records of rare or notable species within the 1 km of the site.

2.3 Additionally, MAGIC (Multi-Agency Geographic Information for the Countryside, 2017) was used to establish the distance and direction of designated sites and species records within the search area.

Personnel

2.4 The surveys were carried out by James Godbeer BSc Hons MCIEEM, an ecologist with over 10 years experience working as a consultant, and an experienced bat surveyor. James has extensive experience of managing environmental contracts, and particular experience in surveying, assessment and mitigation for rare and protected species. He has considerable knowledge of the development and planning process including Ecological Impact Assessments, sustainable ecological design and he has completed ecology chapters of Environmental Statements. James holds a number of protected species licences including bats (all species, all counties, Class Licence Registration No. 2015-12313-CLS-CLS), and Great Crested Newts (Class Licence Registration No. 2016-20363-CLS-CLS). He has successfully obtained European Protected Species mitigation licences for a number of bat species including Lesser Horseshoe, Greater Horseshoe, Serotine, Brown Long-eared, Common Pipistrelle and Natterer's bats, for a number of roost types including maternity and hibernation sites.

Habitat Survey

2.5 The site was visited on the 25th July 2017 and surveyed in accordance with the Joint Nature Conservation Committee (JNCC) Phase I Habitat Survey methodology (JNCC, 2010). This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential that might warrant further study.

2.1 The observable higher plant species in each habitat type within the site, and their abundance, were recorded, using the DAFOR scale where appropriate:

D Dominant
A Abundant
F Frequent
O Occasional

R Rare

Fauna

2.2 The habitats on the site were also searched for signs of faunal activity. The trees were assessed for their potential to support bat roosts by visually inspecting them from the ground using binoculars and high-powered torches where appropriate. Potential features such as holes, cavities or splits were recorded and then inspected where possible for signs of bats, which including grease/urine stains, scratch marks, droppings or the bats themselves.

2.3 Where accessible, the site and surroundings, for a minimum distance of 30 m, were searched for signs of Badgers. These include setts, latrines, dung pits, snuffle marks or hairs caught in hedges or on fencing.

2.4 A casual search for evidence of Dormice such as nests and/or gnawed nuts was also carried out.

2.5 Incidental observations of invertebrates and birds were recorded and a search made for any signs of current or previous nesting.

2.6 Any refugia on site such as logs or other debris were lifted and inspected for reptiles and amphibians.

Valuation of Ecological Features

2.7 The value of areas of habitat and plant communities has been measured against published criteria where available. Biodiversity Action Plans (BAPs) have been searched to identify whether action has been taken to protect all areas of a particular habitat and to identify current factors causing loss and decline of particular habitats. The presence of injurious and legally controlled weeds has also been taken into account.

2.8 When assigning a level of value to a species, its distribution and status (including a consideration of trends based on available historic records) has been taken into account. Other factors influencing the value of a species are: legal protection, rarity and Species Action Plans (SAPs). Guidance, where it is available, for the identification of populations of sufficient size for them to be considered of national or international importance has also been taken into account.

Nomenclature

2.9 The English name only of flora and fauna species is given in the main text of this report; however, scientific names are used for invertebrates where no English name is available. Vascular plants and charophytes follow the nomenclature of The Botanical Society for the British Isles (BSBI) 2007 database (BSBI, 2007) with all other flora and fauna following the Nameserver facility of the National Biodiversity Network Species Dictionary (http://www.nhm.ac.uk/nbn/), which is managed by the Natural History Museum.

3.0 Results

Desk Study

3.1 There are no statutory or non-statutory designated sites within 1 km of the site.

3.2 GCER provided the following records for protected and notable species within 1 km of the site boundary:

Mammals – Hedgehog.

Birds – Turtle Dove, Barn Owl, Starling.

Invertebrates – Grizzled Skipper.

Habitats

3.3 The following habitats or vegetation types were identified on the site during the course of the habitat survey:

- Poor semi-improved grassland
- Tall ruderal
- Species-poor hedge
- Species-poor hedge and trees
- Dense scrub
- Running water
- Fence/building edges

Poor semi-improved grassland

3.4 The site was essentially a single field of poor semi-improved grassland (*see Photographs 1 and 2*) comprised of:

Dominant:	Perennial Rye-grass White Clover
Frequent:	Greater Plantain Creeping Buttercup Dandelion agg.
Occasional:	Common Cough Grass Cox Foot Creeping Thistle Broad-leaved Dock Common Nettle Red Clover

3.5 In addition, the field margins up to the hedgerow, primarily along the eastern hedgerow and the running water (*see Photographs 3 and 4*), also included:

Occasional:	Cut-leaved Crane's-bill Field Bindweed Bramble agg. Great Willowherb Water Mint

Photograph 1: Grassland (view east to west)

Photograph 2: Grassland (view west to east)

Photograph 3: Field margins (inc. running water)

Photograph 4: Field margins and hedge and trees (east perimeter)

Tall ruderal

3.6 An area of tall ruderal was located in the south-east corner of the site, in front of a disused, dilapidated wooden building (*see Photographs 5 and 6*). This comprised:

Dominant:	Common Nettle
Frequent:	Creeping Thistle
	Cleavers
	Hogweed
	Hop
	Bramble agg.
Rare:	Broad-leaved Dock
	Common Comfrey

Photograph 5: Tall ruderal (fronting disused building)

Photograph 6: Tall ruderal (left of main gated entrance)

Species-poor hedge

3.7 The east and north-east boundaries were species-poor hedges approximately 1.5 - 2m high with no sign of recent management (*see Photograph 7*), which comprised of:

Dominant:	Hawthorn
Occasional:	Ash
	Hop
	Hedge Bindweed
Rare:	Elm
	Field Maple
	Wild Plum
	Crack-willow

3.8 The central-north boundary was a species-poor hedge approximately 1 - 1.5m high with no sign of recent management, which comprised of:

Dominant:	Bramble agg.
Occasional:	Elm
	Field Maple
Rare:	White-willow (large)

3.9 The west boundary was species-poor hedge approximately 2 - 2.5m high with no sign of recent management (*see Photograph 8*), which comprised of:

Dominant:	Hawthorn
	Bramble agg.
Occasional:	Elder

Photograph 7: North-east boundary species poor hedge

Photograph 8: West boundary species poor hedge

Species-poor/species rich hedge and trees

3.10 The north-west boundary was species-poor hedge and trees approximately 2 - 2.5m high with no sign of recent management (*see Photograph 9*), which comprised of:

Dominant:	Hawthorn
Occasional:	Blackthorn
	Field Maple

The ground flora beneath the north-west boundary hedge and trees comprised of:

Frequent:	Perennial Sow-thistle
	Ground-ivy
Occasional:	Common Bent
	False Oat-grass
	Common Ragwort

The ground flora beneath the north-west boundary hedge and trees (*see Photograph 11*) comprised of:

Frequent:	Common Nettle
	Ground-ivy
Occasional:	Bramble agg.
Rare:	Lords-and-Ladies

3.11 The central-south boundary broadened to a 4 - 5m wide section consisting of both species-rich hedge and trees and dense scrub (*see Photograph 12*).

The species-rich hedge and trees was, approximately 3 - 10m high with no sign of recent management, and comprised:

Dominant:	Hawthorn
Frequent:	Ash
	English Elm
	Field Maple
Occasional:	Elder
	Blackthorn

	Wild Plum

The dense scrub area fronting the species-poor hedge and trees, approximately 2 – 3m high with no sign of recent management, comprised:

Dominant:	Hawthorn
Abundant:	Blackthorn Ground-ivy Common Nettle
Frequent:	Creeping Thistle
Occasional:	Field Maple Dog-Rose Broad-leaved Dock
Rare:	Lords-and-Ladies Garlic Mustard Elder

3.12 The south-east boundary was species-poor hedge and trees approximately 2 - 2.5m high with no sign of recent management, which comprised of:

Dominant:	Hawthorn
Frequent:	Ground-ivy
Occasional:	Elder Hop
Rare:	English Elm (dead)

This then merged with a section of dense scrub, approximately 1.2 – 2m high with no sign of recent management, which comprised:

Dominant:	Bramble agg.

Photograph 9: North-west boundary species poor hedge and trees

Photograph 10: South-west boundary species poor hedge and trees

Photograph 11: Example ground flora beneath the south-west boundary species poor hedge and trees

Photograph 12: Central-south boundary consisting of both species poor hedge and trees and dense scrub

Running water

3.13 A small ditch, approximately 0.5m deep, with trickling water flowing north was present along the length of the east boundary between the grassland and hedgerow. This was largely overgrown by the field margin vegetation (*see section 3.5 and Photograph 3*).

Fence/building edges

3.14 Two small dilapidated wooden buildings flank the main entrance in the south-east corner. One was overgrown by Ivy agg. (*see Photograph 13*) and the other was fronted by tall ruderal species (*see section 3.6 and Photograph 14*).

Photograph 13: Small building overrun by Ivy agg.

Photograph 14: Small dilapidated wooden building fronted by tall ruderal species.

Fauna

Bats

3.15 GCER did not provide any records of bats within 1 km of the site. Neither of the buildings on site were suitable for use by roosting bats, both being open draughty and well lit with no gaps or crevices with any reasonable likelihood of being used. None of the trees present appeared to be suitable for bat roosting as they lacked any obviously suitable features such as flanking bark, cavities, fissures or rot holes.

3.16 It is likely that bats forage along the hedgerows and trees on the site boundaries but overall the open grassland, which forms the majority of the site, is poor for bats. The hedgerows on site are connected to a tree lined disused railway to the northwest, but the surrounding open farmland is considered to be generally poor for bats with areas of woodland and water bodies generally absent.

Badgers

3.17 GCER did not provide any records of Badgers within 1 km of the site. A survey of the adjacent site to the south in June 2014, found a single well used mammal run under the fence and hedge on the south boundary of the present site, as well as a single dung pit, which contained dung that was most probably a few weeks old. A single hole Badger sett was found approximately 6 m within the present site. A re-survey of the site in November 2015 found no evidence of dung pits and the single Badger hole contained leaf litter with large numbers of Rabbit droppings present at the entrance. Additional rabbit holes were also present. No setts were noted in the area and no other setts were found on the site itself.

3.18 The present site is mainly an open field of short poor semi-improved grassland, which provides potential foraging habitat for this species, and boundary hedgerows that could be used for the construction of setts. However, no setts or other evidence of Badgers, such as dung pits, latrines, hairs or snuffle marks, was found during the survey. It is concluded that they are currently absent from the site and historical use shows they have previously been present and are likely to be present in the wider area, it is unlikely that the site is important for this species.

Otters and Water Voles

3.19 GCER did not hold any records of Otters or Water Voles within 1 km of the site. The small watercourse on the east boundary provides the only aquatic habitat on site and this I little more than a trickle of water. Generally, Water Voles prefer sites with wide swathes of riparian vegetation, both growing from the banks and from the water. This serves as both their food and shelter. Water Voles also prefer slow-flowing, relatively deep (over 1 m depth) water courses (Strachan & Moorhouse, 2006). The absence of nearby larger water courses, and the lack of connectivity to any, would limit the potential for this species to use the ditch. The volume of water in the ditch would make it generally unsuitable for either species and no evidence was found, such as burrows, holts, feeding remains or latrines. It is therefore concluded that these species are absent from the site and no impacts are predicted.

Dormice

3.20 There are no records of Dormice occurring within 1 km of the site. The potential for the site to support Dormice is minimal. The species-rich south boundary hedge could be used by Dormice as it contains the variety of species preferred by Dormice. However, none of the hedgerows on site are well connected to any nearby off site areas of more suitable habitat such as woodland, and they do not provide connectivity between any such habitats. Networks of hedges alone can support populations of this species but it is more likely that Dormice are absent from the site.

Other mammals

3.21 GCER provided a single record of Hedgehog from 2012 approximately 40 m east of the site. The site is mostly open and relatively sparsely vegetated and therefore poor for mammals. The small area of tall ruderal, scrub and hedges provide cover and foraging habitat for small mammals as well as Hedgehogs and their activity is likely to be limited to these areas. A number of mammal runs were present in the central-north and north-west perimeters; these were attributed to Rabbits. There was also evidence of Rabbits in the central-south hedge and dense scrub area, including the presence of Rabbit burrows and droppings (see Photographs 15 and 16).


Photographs 15 and 16: Rabbit burrows in the central-south hedge and tree and dense scrub area.

Birds

3.22 GCER provided a record of Barn Owl, Starling and Turtle Dove within 1 km of the site. Species recorded during the survey were Blackbird and Woodpigeon.

3.23 The grassland on site is unsuitable for ground nesting birds but the boundary hedgerows, trees and scrub offer potential nesting habitat and foraging opportunities for a range of bird species. No evidence of current or previous nesting by birds was recorded in the vegetation although nests could have been missed in the denser areas of vegetation.

Reptiles

3.24 GCER had no records for reptiles within 1 km of the site. The site is generally unsuitable for reptiles; the hedgerows and scrub provide the majority of the cover but these are not associated with open undisturbed areas for basking. Small areas of rank grassland were present to the sides of the current site entrance but these are isolated pocket with no connectivity to further off site habitats. The grazed grassland, which comprises the majority of the site, is considered unsuitable for these species. It is likely that reptiles are absent from the site with the potential for them to occur regarded as minimal.

Amphibians

3.25 GCER no records for amphibians within 1 km of the site. The perimeter hedgerows and scrub provide only limited terrestrial habitat for amphibian species and no ponds are present on site. With regard to the specially protected Great Crested Newt, there are no ponds shown on maps of the area within 500 m of the site and it is therefore likely that Great Crested Newts are absent from the site.

Invertebrates

3.26 GCER provided one Grizzled Skipper and one Small Heath butterfly record within 1 km from 1997. A small number of Small Tortoiseshell, Large White and Small Heath butterflies were observed during the survey around the hedgerow and scrub. However, overall the site is

comprised of common habitats types that do not provide much potential for rare invertebrate species; only common species are expected to be present.

4.0 Development Constraints and Recommendations

4.1 The site is the subject of a planning application for a new housing development. It is understood a section of the eastern perimeter hedge is to be permanently removed to provide future access and that the majority of the poor semi-improved grassland will be lost to development.

4.2 Possible ecological constraints and recommendations with regard to the potential development are discussed below.

Habitats

4.3 The NERC Priority Habitats include all hedgerows with at least 80% cover of at least one woody UK native species (JNCC, 2017). All boundary hedgerows had at least 80% cover of native species and as such qualify as NERC Priority Habitats. The majority of hedgerows are likely to be retained except for a section of the eastern perimeter which is to be permanently removed to create a road access point. As a new entrance is to be created that is not in substitution for an existing entrance, a Hedgerow Assessment is likely to be required in accordance with the Hedgerow regulations 1997 in order to establish whether it qualifies as important. If any other hedges, or sections or hedges, are to be removed these should also be included in the assessment.

4.4 Any loss of hedges should be compensated for by the planting of new hedges, enhancement of existing hedges and/or an appropriate landscape strategy. Where new hedgerows are to be planted, or if existing hedges are to be enhanced as part of the landscape proposals for the site, the following species rich mix is recommended to encourage wildlife: 50% Hawthorn, 20% Field Maple, 15% Blackthorn and 15% mix of Hazel, Spindle, Dog-Rose and Holly (Gilbert and Anderson, 1998). Management practices for both new and existing hedgerows include laying the hedgerows to encourage bushy growth low down, trimming only every three years or less if possible, and maintaining them at their current height of at least three metres for new hedges.

4.5 The running water ditch is unlikely to qualify as a NERC Priority Habitat and has little ecological value. However, the planned access point will have an impact as the ditch runs parallel to the stretch of hedgerow to be removed and will therefore also be breached and likely require culverting. Furthermore, the site development works could have a potential impact if appropriate controls are not put in place. Given the isolated nature of the ditch, no specific recommendations for enhancement are made but consideration could be given to the planting of native marginal vegetation. It is also recommended that the following measures be implemented in order to minimise any risks of adverse impacts:

- During the construction phase of the project on no account should any chemicals, including vehicle fuels or lubricants be left on site at night where they might be accessed by accident or deliberately (e.g. vandals) resulting in spillage to the ditch either directly or as run off.
- Any contractors engaged in works on the site should have in place secure storage facilities and an agreed pollution prevention plan. Appropriate pollution control equipment should be available at the site to control spillages if they do occur.

4.6 The remaining vegetative habitats on site are common habitats, which are of low ecological value in terms of their vegetation. The scrub and tall ruderal do not qualify as NERC Priority Habitats and the grassland does not fit the criteria to qualify (JNCC, 2017). In order to qualify as a NERC Priority Habitat, grassland typically has to be unimproved (good semi-improved grassland can also qualify) and would have to be examples of grassland such as lowland calcareous grassland or lowland dry acid grassland, habitats not found on site.

4.7 The development would result in a decrease of vegetative cover, the impact of which would be low in the local and wider context. Any impact should be reduced by the implementation of an appropriate landscape strategy. Where additional new trees or shrubs are to be planted, native tree and shrub species should be used as these are most beneficial to invertebrates, and many also produce seeds, nuts and berries that are food for native mammals and birds. Planting of non-native plant species should be limited to those that are not invasive, and should prioritise those that provide a good source of nectar for invertebrates *e.g.* Butterfly-bush, Jasmine.

Protected and Notable Species

Bats

4.8 Although the site as a whole is considered to be poor for bats, the hedgerows and trees and scrub edges are likely to be used by various species of foraging and commuting bats. As a new access point is proposed that will create a permanent gap in the eastern perimeter hedge, a bat activity survey is likely to be required by the local planning authority in order to establish the importance of this stretch of hedgerow for bats and enable a suitable mitigation strategy to be devised. Given the nature and location of this hedge, the potential for it to be important for bats is regarded as low and any significant value for bats would be associated with use by any significant roosts in the vicinity rather than for bats moving through the landscape in general. In accordance with the Bat Conservation Trust 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' (Collins, 2016), for sites where habitat is classed as low, one survey visit in each of spring, summer and autumn is usually required. In this instance, provided at least two of surveys are carried out during the optimal period of May to August with one survey in September, there would be no need to continue the survey in 2018.

4.9 None of the buildings on site provide any roosting opportunities for bats and no restrictions on their removal are necessary. None of the trees on site showed any potential roosting features. If any trees require removal or tree surgery works then it is recommended that the following procedures be employed in the unlikely event a bat or bats are discovered:

- If the roost is still on the tree and bats are not injured, seek advice from a licensed ecologist. If help is not available, allow bats to fly out of harm's way.
- If the timber is felled, the roost is not exposed and the bats are not injured, temporarily seal and isolate the roost and seek advice from a licensed ecologist. If advice is not readily available, position the roost off the ground, re-open it and allow bats to relocate of their own accord.
- If the roost has been exposed, and especially if bats have been injured, collect bats in a secure box or bag (using a glove) and contact a licensed ecologist.
- Note the date, locality, type of tree, situation in tree and bat species if known.

4.10 The majority of the boundary vegetation will be retained and new residential gardens will provide new foraging habitats to replace those to be lost and these changes are not expected to have any impact on the conservation status of bat populations in the area. Although the most likely species to be present on site, Common Pipistrelle, are relatively light tolerant, other species such as long-eared and horseshoe bats, for which there are records in wider area, are more sensitive. No further surveys of the remainder of the site for bat activity are recommended but an appropriate lighting strategy should be put in place to ensure that any impacts, both during construction and residual impacts, are minimised or avoided altogether. Measures include the use of low UV lights such as warm white LED lamps with a wavelength of 590 nm, for external lighting with column lighting with full cut-off directional shielding to ensure that lighting is directed only where required and light spill into adjacent areas is minimized

4.11 The proposed development provides an opportunity to significantly enhance the site for bats. The creation of new residential gardens is likely to provide foraging habitat and the provision of roosting opportunities would be of significant value. These could be incorporated into the development and/or bat boxes provided on large trees.

4.12 No further provision for bats is required but consideration should be given to the enhancement of the site for bats by incorporating purpose made roost sites into the new buildings and the local planning authority will usually expect to see such enhancements included. Large open roof voids for species such as long-eared and horseshoe bats would be a significant enhancement if the design and location were appropriate; these are not always feasible or desirable in residential properties but there are many ways that the buildings could be enhanced for crevice-dwelling bat species without inconveniencing prospective occupants. Bat panels such as Schwegler Bat Access Panel 1FE, or bat tubes such as the Schwegler 1FR Bat Tube can be incorporated into the building exteriors with little visual impact, or roosts such as the Schwegler Bat Roost 1FQ can be erected after building completion. Inexpensive timber boxes can also be made using untreated wood and many designs are available on the internet.

4.13 The enhancement of the site for bats could be increased further with the provision of further roosting opportunities by erecting bat boxes on retained mature trees. The Schwegler 2F bat box is a good general design that will attract many species. Bats are very particular about the internal conditions of bat boxes, so providing several bat boxes with different aspects creates differences in temperature, humidity etc. thereby increasing the chance of colonisation.

Badgers

4.14 The site provides potential foraging habitat for Badgers but no evidence of their presence was found during the survey and it was concluded that they are generally absent. No further surveys are required at this time.

Other mammals

4.15 The potential for other species of protected or notable mammal species to use the site is deemed to be low. No constraints are predicted as a result of the likely presence of common small mammals and the possible presence of Hedgehogs. As a precaution, it is recommended that during the construction phase of the development any trenches and other excavations should be back-filled before nightfall or a ramp left to allow animals to easily exit, and any open pipes larger than 150 mm should be capped off overnight.

Birds

4.16 The survey was carried out in July, which is during of the nesting season of March – August. No evidence of nesting birds was recorded but nests could have been missed in the denser areas of vegetation and bird could nest in the future.

4.17 All nesting birds are protected under The Wildlife and Countryside Act 1981 (and amendments). It is recommended that any vegetation clearance be carried out outside of the bird-nesting season of March to August. Where this is not possible, the buildings and vegetation should be surveyed for nesting birds by a suitably qualified ecologist prior to works commencing. If they are found, then the nest and surrounding habitat must remain intact until the young have fledged.

4.18 The development should consider including enhancements for nesting birds as part of the overall scheme site. New residential gardens could provide new nesting and foraging habitat and the development could be further enhanced by incorporating nesting opportunities for birds on the new buildings.

4.19 Nest boxes for Swifts and House Martins could be installed under the eaves or on north-facing gables at a height of at least 6 m. Colony type boxes could also be installed at a height of least 2 m to provide nesting sites for birds such as House Sparrows. Bird boxes for small birds could also be erected on trees; these should be fixed a minimum of 2 m from the ground, with the entrance hole between north and east. This avoids the worst of the weather and prevents the box and its inhabitants becoming overheated in sunny weather.

4.20 Any new planting on site should concentrate on species that are native to the area and ideally produce a range of seeds and berries at varying times of the year. Nectar rich plants could also be used encourage invertebrates on to the site, which in turn provide food for birds as well as other species such as bats.

5.0 References

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6.0 Plans

Habitat Survey Results